

RAI Volume 4, Chapter 2.5.5, First Set, Number 1:

Clarify how DOE will incorporate human factors considerations into its assessment of testing results and operational lessons learned from similar facilities.

Basis: The requested additional information is needed to determine compliance with 10 CFR 63.21(c)(22)(iv). Staff guidance relevant to this area is provided in HLWRS-ISG-04, Preclosure Safety Analysis – Human Reliability Analysis [ADAMS accession No. ML071910213].

1. RESPONSE

Testing results and operating lessons learned from both the repository and other facilities with features similar to the repository will be assessed for human factors considerations, which is one of the work/function categories in the U.S. Department of Energy (DOE) Corporate Operating Experience Program (DOE Order 210.2) referenced in SAR Section 5.5.2. The DOE intends to retain membership in industry organizations to utilize continuing industry human factors lessons learned from NRC licensees, including reactors, fuel cycle facilities, and especially that from similar facilities and NRC operating experience programs. The lessons learned from industry and test results/lessons learned at the repository, including human factors considerations, will be assessed and incorporated in the repository design and/or procedures as appropriate.

As described in SAR Section 5.5.3, the DOE intends to develop test procedures based on test specification requirements. Lessons learned from the repository testing results and other relevant industry operating experience, including insights on human factors considerations, will be evaluated for inclusion as requirements in the test specifications.

2. COMMITMENTS TO NRC

None.

3. DESCRIPTION OF PROPOSED LA CHANGE

None.

RAI Volume 4, Chapter 2.5.6, First Set, Number 1:

Clarify that personnel reviewing procedures for normal activities, including maintenance, surveillance, and routine periodic testing of structures, systems, and components will have the experience and competence required to review the area of human factors engineering.

Basis: The requested additional information is needed to determine compliance with 10 CFR 63.21(c)(22)(v). Staff guidance relevant to this area is provided in HLWRS-ISG-04, Preclosure Safety Analysis – Human Reliability Analysis [ADAMS accession No. ML071910213].

1. RESPONSE

As stated in SAR Section 5.6, the U.S. Department of Energy (DOE) will address HLWRS-ISG-04 Acceptance Criterion 4(5) with respect to the inclusion of human factors engineering considerations. Human factors engineering was not specifically listed in SAR Section 5.6.1, paragraph 4, with the other areas of experience and competence collectively required of the independent procedure review personnel; however, as discussed during the clarification call on June 23, 2009, the DOE will revise the SAR to explicitly include it with the other required areas of experience and competence.

2. COMMITMENTS TO NRC

The DOE commits to revise the license application as described in Section 3 to reflect human factors engineering experience and competency as a requirement of the independent procedure reviewers. This revision will be included in a future license application update.

3. DESCRIPTION OF PROPOSED LA CHANGE

The following bullet will be added to the list of experience and competence areas identified in the fourth paragraph in SAR Section 5.6.1:

- Human factors engineering