WM2011 Symposia Phoenix, AZ February 28, 2011

Panel Session 15

Hot Topics & Emerging Issues in US Commercial Low-Level Radioactive Waste Management

Rusty Lundberg Utah Division of Radiation Control







Utah Radiation Control Board Position Statement -- Blending

The Utah Radiation Control Board recognizes that down-blended radioactive waste does not pose any unique health and safety issues to the public that are not observed in other classes of low-level radioactive waste.

The Board is also aware that down blending may appear to some persons as a process to circumvent Utah law, which prohibits any entity in Utah from accepting Class B or Class C low-level radioactive waste for commercial storage, treatment or disposal.

Utah Radiation Control Board Specific Position Statements

- . The Board is opposed to waste blending when the intent is to alter the waste classification for the purposes of disposal site access.
- 2. Dilution of radioactive wastes with uncontaminated materials should be explicitly prohibited.

Utah Radiation Control Board Specific Position Statements

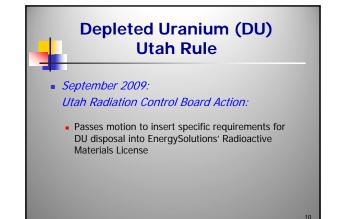
 Current guidance documents dealing with concentration averaging and mixing should be updated to address the current understanding of the possible down-blending issues. Important matters dealing with waste blending, such as prohibition of certain practices, currently in guidance should be put into regulation.



Depleted Uranium (DU) Utah Rule

August 2009: NRC RECOMMENDED INTERIM ACTION:

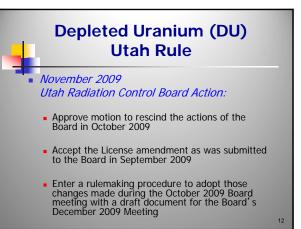
 Facility disposing DU should develop a site-specific PA which should be evaluated against criteria in SECY-08-0147 prior to disposal of large quantities of DU



Depleted Uranium (DU) Utah Rule

October 2009: Utah Radiation Control Board Action:

- Considers and votes to make changes to the License requirements for Depleted Uranium disposal at EnergySolutions
- Board is in favor of requiring a PA and to have the PA approved by the Executive Secretary before DU is accepted



Depleted Uranium (DU) Utah Rule

- December 2009: Utah Radiation Control Board Action:
 - Approves changes requiring DU Performance Assessment and approval by the Executive Secretary before disposal

Depleted Uranium (DU) Utah Rule

- December 2009 Proposed DU rule filed with Utah Division of Administrative Rules
- January 2010 Proposed DU rule out for 30-day Public Comment Period (January 1, 2010 to February 2, 2010)
- Public Hearing held January 26, 2010

Depleted Uranium (DU) Utah Rule

- 84 written comments were received during the 30-day public comment period
- 15 verbal comments were received during the public hearing

Depleted Uranium (DU) Utah Rule April 2010: Utah Radiation Control Board action: Approves changes to the proposed rule based on comments received Change in Proposed Rule filed with the Utah Division of Administrative Rules

Depleted Uranium (DU) Utah Rule

May 2010:

R313-25-8 Final Rule published in the Utah State Bulletin

June 2, 2010: Effective Date of Final Rule

Depleted Uranium (DU) Utah – Final Rule

- "Concentrated DU" means waste with DU concentrations greater than 5% by weight
- Land disposal of significant quantities of concentrated DU (> 1 metric ton in total accumulation) after June 1, 2010, shall submit a PA
- PA revised as needed to reflect ongoing guidance and rulemaking from NRC

Depleted Uranium (DU) Utah – Final Rule

 Demonstrates that the performance standards specified in 10 CFR Part 61 (corresponding Utah rules) will be met for the total quantities of concentrated DU and other wastes, including wastes already disposed of and the quantities of concentrated DU the facility now proposes to dispose

Depleted Uranium (DU) Utah – Final Rule

- PA compliance period a minimum of 10,000 years. Additional simulations performed for the period where peak dose occurs and the results shall be analyzed qualitatively
- No facility may dispose of significant quantities of concentrated DU prior to the approval by the Executive Secretary of the performance assessment





Performance Assessments Rulemaking

- Proposed conditions for requiring a PA
 - Waste is likely to result in > 10% of the dose limits during the time period at which peak dose would occur
 - Waste will result in > 10% of the total site source term over the operational life of the facility
 - Waste would result in an unanalyzed condition not considered in the development of 10 CFR 61.55



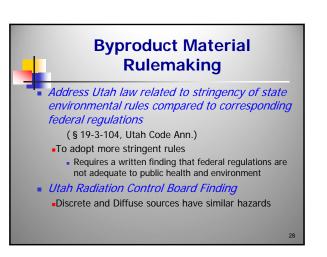
Performance Assessments Rulemaking

- Revised proposed conditions for requiring a PA
 - Waste was not considered in the development of the limits on Class A waste and not included in the analyses of the Draft EIS for 10 CFR Part 61
 - Waste would result in an unanalyzed condition not considered in the development of <u>R313-25</u> 10 CFR 61.55

BYPRODUCT MATERIAL EXPANDED DEFINITION RULE DEVELOPMENT

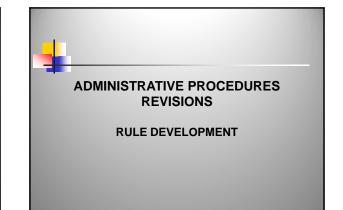
Byproduct Material Rulemaking

- NRC Expanded Definition of Byproduct Material (72 FR 55864 – 10/1/2007)
 - Discrete sources of NORM / NARM
- Utah has regulated NORM / NARM for over 20 years
- Created a definition for "diffuse sources" in order to continue to regulate NORM / NARM not covered by NRC's "discrete sources"



Byproduct Material Rulemaking

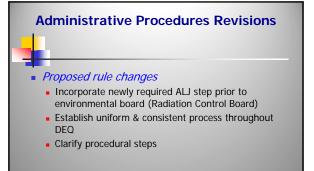
- Utah Radiation Control Board Finding
- No corresponding federal regulation exists for "diffuse sources"
- Discrete and Diffuse sources have similar hazards
 Board approved rule changes:
 - Oct. 12, 2010 made effective Oct. 13, 2010

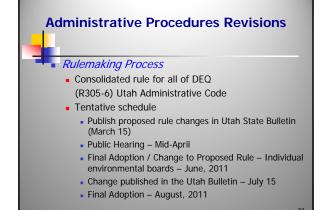


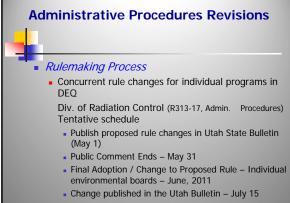
Administrative Procedures Revisions

- SB 70 2009 General Session
 - Authorizes the executive director of the DEQ appoint an administrative law judge;
 - Requires an administrative law judge to conduct all adjudicative proceedings within the department, except an emergency adjudicative proceeding;

Administrative Procedures Revisions SB 70 – 2009 General Session (cont.) Establishes powers, duties, and qualifications for an administrative law judge; and Amends or repeals the powers of boards within DEQ regarding hearings, adjudicative proceedings, and hearing officers or examiners







Final Adoption – August, 2011





Session Objectives

- Provide an opportunity to involve interested stakeholders in matters related to the disposal of low-level radioactive waste in Utah
- Become informed about components
 of performance assessment

Session 3 Objectives

- Discuss topics identified
- Parking Lot from previous sessions
- Follow-up comments
- Presentation from Neptune
- Receive input on considerations for PA review

