

November 3, 2011

MEMORANDUM TO: Chairman Jaczko
Commissioner Svinicki
Commissioner Ostendorff

FROM: Commissioner Magwood **/RA/**
Commissioner Apostolakis **/RA/**

SUBJECT: REVISION TO 10 CFR PART 61

Last year, in response to staff's need for guidance with respect to the question of the blending of classes of low-level radioactive wastes (LLW), the Commission directed the staff to develop a regulatory approach to deal with blended wastes (SRM-SECY-10-0043 – Blending of Low-Level Radioactive Waste). In a previous SRM (SRM-SECY-08-0147 – Response to Commission Order CLI-05-20 Regarding Depleted Uranium) the Commission directed the staff to proceed with a limited scope rulemaking to specify requirements for site specific analysis for the disposal of large quantities of depleted uranium. The Commission further instructed the staff to anticipate in the future a more comprehensive overhaul of the salient regulation, 10 CFR Part 61, but it was clear that such a major initiative would take considerable time.

Since the Commission last acted in this area, staff has released a proposed limited-scope revision to Part 61 that has garnered considerable attention. For example, this subject was heavily debated at this year's Radwaste Summit conference in Las Vegas. More recently (September 22, 2011), the ACRS provided the Commission with a report outlining its views on the proposed rulemaking.

The important messages from these sources are:

- 1) There are opportunities to deal with important questions associated with revising 10 CFR Part 61, e.g., waste classification, as part of the current rulemaking effort. Taking such a path would obviate the need to launch a second, protracted rulemaking effort to overhaul Part 61, which would not likely start until roughly FY 2014. Eliminating the second rulemaking would avoid years of additional uncertainty and save considerable agency resources in a period of constrained budgets.
- 2) Previous direction given to the staff in SECY-08-0147 "Response to Commission Order CLI-05-02 Regarding Depleted Uranium; SECY-10-0043, "Blending of Low-Level Radioactive Waste"; and SECY-10-0165 "Staff's Approach to Comprehensive Revision to 10 CFR Part 61 should be revisited.
- 3) The current staff proposal should be revised based on public comment.

The complexity of the LLW disposal issue, especially as materials such as depleted uranium and blended wastes are introduced, stems from the question of how we today can take

appropriate action to assure the protection of future generations. In some cases, hazards will persist for tens of thousands of years—far longer than Western civilization itself has thus far existed. At a very high level, this becomes a discussion of values. At a regulatory level, this translates into a consideration of how to determine the compliance period for a particular waste disposal activity in order to assure the protection of both current and future generations.

When NRC is faced with making such intergenerational decisions, it could be guided by the National Academy of Public Administration's Chain of Obligation Principle: each generation's primary obligation is to provide for the protection of current and foreseeable generations. In addition, near-term concrete hazards have priority over long-term hypothetical hazards.

With that general philosophy stated, the approach we propose is to change the current rulemaking regarding site-specific analysis in order to bring a clearer risk-informed approach to Part 61. Doing so would eliminate the need for the far more complex rulemaking currently envisioned for the FY2014 time frame. The Commission should provide the following direction to the staff:

- Require a site-specific performance assessment for the disposal of all radioactive waste using the most up-to-date ICRP dose methodologies.
- Establish a compliance period that covers the reasonably foreseeable future (as has been used in previous regulations such as the License Termination Rule). In addition, as recommended by the ACRS, an *a priori* period of performance should not be adopted. Rather, the period of performance should be developed based on the candidate site characteristics (waste package, waste form, disposal technology, cover technology and geo-hydrology) and the peak dose to a designated receptor group produced by the more mobile radionuclides. These analyses would provide decision makers with the information needed to effectively evaluate the overall risks presented by these radionuclides and manage uncertainty well into the future.
- As a regulatory alternative to the current classification system, the NRC should provide flexibility for disposal facilities to establish site-specific waste acceptance criteria (WAC) based on the results of the site's performance assessment and intruder assessment. This approach could be modeled after DOE Order 435.1.
- Propose that the elements of the revised rule that establish the requirements for site-specific performance assessments and the development of site-specific waste acceptance criteria be Compatibility Category B.

Staff should engage all impacted stakeholders to discuss and finalize the agency's approach to address this matter. Since staff has already performed considerable outreach, we suggest a somewhat compressed schedule to complete this work. We recommend a proposed rule should come to the Commission 18 months after an SRM has been issued.

SECY, please track.

cc: SECY
CFO
OGC
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