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Subject: Transfer of Very Low-Level Waste to Exempt Persons for Disposal– 85 FR 13076;
Docket ID NRC–2020–0065

The Low-Level Radioactive Waste Forum (LLRWF) is submitting these comments in response to the subject notice. We appreciate the opportunity to comment on the U.S. Nuclear Regulatory Commission's (NRC's) Proposed Interpretive Rule. The LLRWF is supportive of identifying options to improve and strengthen the NRC's regulatory framework for the disposal of large volumes of very low-level radioactive waste (VLLW). However, the proposed interpretive rule does not sufficiently address the needs and concerns identified during the VLLW scoping study and in fact, the concept of an interpretative rule was never considered. In addition, the NRC did not reach out to the agreement states to properly discuss the concept of an interpretative rule.

Our comments are summarized in the attachment. The proposed interpretative rule provided very little detail on implementation and therefore it was challenging to provide meaningful comments. The LLRWF is not supportive of this proposed interpretative rule and instead favors a rulemaking that would define a new category of radioactive waste for VLLW to be included in 10 CFR Part 61. We have identified considerations that would be important in such a rulemaking. Our comments are provided in response to the questions posed in the *Federal Register* notice.

Thank you again for this opportunity to comment. Questions regarding these comments may be directed to me at (801) 580-3201 or dshrum@llwforum.org.

Sincerely,

Daniel B. Shrum
Executive Director
Low-Level Radioactive Waste Forum

Attachment

COMMENTS ON PROPOSED INTERPRETIVE RULE

Question 1. This interpretive rule would authorize the transfer of licensed material to persons who hold specific exemptions for disposal without a case-by-case review and approval of the transfers. Do you think that case-by-case review and approval of these transfers is necessary?

Answer 1. Regulations found at 10 CFR 20.2001 are minimalistic in nature and only provide “General Requirements” for the disposal of licensed radioactive material. From 10 CFR 20.2001, the licensee is given a general roadmap for proper disposal, i.e., decay in storage, disposal in a licensed landfill, etc. Unless the licensee plans to decay in storage (10 CFR 20.2001.a(2)) or release by effluents (10 CFR 20.2001.a(3)), all options require a license to license transfer.

The Proposed Interpretative Rule will by-pass regulations developed for the safe disposal of licensed radioactive material, specifically, 10 CFR 61. The regulatory process of siting and licensing a Part 61 disposal facility should be followed in order to completely remove the requirement for case-by-case reviews. This is the only way case-by-case reviews can be removed and continue to protect human health and the environment. There is significantly more to licensing a Part 61 disposal facility than just meeting the proposed cumulative dose of 25 mrem/year. Similarly, there is more to the waste acceptance process at a permitted RCRA disposal facility than is acknowledged by an assumed generic waste acceptance process.

Instead of evaluating individual disposal actions or using an interpretive rule, the NRC should determine the suitability of and license sites that provide the necessary level of protection. The regulations for the land disposal of LLRW waste should be entirely encompassed in a revised 10 CFR 61. Part 61 is well suited for incorporating this new waste classification because it already is written to apply varying levels of protection depending upon the hazard (graded approach). For example, §61.7(b)(2) imposes more restrictive stability requirements on Class B and C wastes than on Class A wastes. Similarly, some aspects of Part 61 would not need to apply to the disposal of very low-level radioactive waste (VLLW).

The proposed interpretative rule recognizes that there is no definition of VLLW waste. As such, the NRC should first define a category of very low-level radioactive waste (VLLW) that is lower than the existing Class A, but which still requires disposal in a manner that provides isolation from the biosphere. This would provide the advantage of leveraging the existing mature regulations regarding LLRW disposal while at the same time reducing the regulatory burden that currently exists for the disposal of waste at the very low end of the classification spectrum.

The proposed cumulative dose performance objective is not sufficient to fully evaluate the disposal of VLLW at a given site. For example, the current regulatory framework for licensed LLW disposal contemplates long term stability and long-term stewardship for many years (actually an undefined time period) – considerably longer than time frames contemplated for Subtitle C and D landfills. We are not suggesting that Subtitle C or D landfills are not designed and operated using best practices for hazardous waste, but the performance objectives for radioactive wastes are different and must be fully evaluated. For example, Part 61 facilities are designed to prevent the “bath tubbing” effect – Subtitle C and D landfills typically have synthetic liners that may encourage water collection.

In addition, defining VLLW and providing performance objectives in Part 61 should allow for a site-specific approach as is contemplated under the ongoing Part 61 rulemaking. The development of site-specific waste acceptance criteria (WAC) derived from a performance assessment (PA) should be an acceptable method for demonstrating compliance with the performance objectives. Because a site-specific approach is superior to a generic approach, using a site-specific PA to determine how much VLLW (by isotope, volume, etc.) could be disposed of at a site should be an acceptable approach.

Question 2. Transboundary transfer of VLLW associated with the approved disposal actions is an important consideration. What issues associated with transboundary transfer of VLLW should be considered with this interpretive rule?

Answer 2. The proposed NRC interpretive rule has the potential to cause confusion and undermine the Low-Level Radioactive Waste Policy Act (LLRWPA) of 1980 and 1985. The NRC should clearly state that this interpretative rule does not change the authority granted to the compacts by Congress. LLW, including VLLW, would continue to fall under the authority granted to the compacts to control the management and disposal of LLW.

Another transboundary consideration is the continued viability of the existing Part 61 disposal facilities. Based on presentations given by the current operators of the four Part 61 disposal facilities, there is currently sufficient capacity to dispose of waste generated from decommissioning all US power plants (except for spent fuel and Greater than Class C). The diversion of formerly licensed material may impact the continued viability of the compact disposal facilities. These licensed facilities may no longer be viable and this rule may jeopardize the continued operation of critical Class B & C waste disposal. Additional study of how the interpretive rule would impact the current facilities is suggested.

Question 3. 10 CFR 20.2006 states that “[a]ny licensee shipping radioactive waste intended for ultimate disposal at a licensed land disposal facility must document the information required on NRC’s Uniform Low-Level Radioactive Waste Manifest and transfer this recorded manifest information to the intended consignee in accordance with appendix G to 10 CFR part 20.” Should the exempt persons authorized to dispose of certain VLLW that would be considered § 20.2001 “authorized recipients” under this proposed interpretive rule be required to use Uniform Waste Manifests (consistent with § 20.2006) for waste transferred to the exempted disposal facility?

Answer 3. As discussed earlier, the proper way to deal with VLLW is to include it in Part 61 with gradational disposal performance objectives. The current regulatory system assumes disposal at licensed facilities with proper documentation and controls. The proposed interpretation short circuits much of the existing framework and becomes complicated because of issues identified in Question 3. Removing the requirement for manifests will impede compact operations, make tracking of LLW more difficult (non-manifested waste would not go into the MIMS system), and generally undermine the existing regulatory structure. In addition, current forms used in tracking shipments to a permitted RCRA Subtitle C or D disposal facility would fail to provide the necessary radiological information that otherwise is necessary to ensure proper acceptance and compliance of disposal objectives for disposal at a RCRA facility.

Although the Proposed Interpretive Rule would apparently allow disposal of VLLW at an exempt facility in the absence of a case-by-case review and approval for each waste shipment, each shipment could only be received at an exempt disposal facility if the waste met the waste acceptance criteria (WAC) and waste acceptance plan (WAP) for that facility, especially for non-municipal waste. The WAC and WAP would need to account for the additional radiological information associated with a specific VLLW shipment. Fingerprint verification of an incoming VLLW shipment at a RCRA disposal facility is tantamount to a case-by-case review and approval. Consequently, the Proposed Interpretive Rule seems to overlook or at least discount the robust nature of the typical waste acceptance process at a permitted RCRA disposal facility receiving non-municipal waste (i.e., RCRA Subtitle D industrial solid wastes and/or RCRA Subtitle C hazardous wastes).

Question 4: Are there any other criteria that the NRC should consider when it reviews a request for a specific exemption for the purpose of disposal?

Answer 4: The performance criteria found in 10 CFR Part 61 and associated guidance documents should be followed when reviewing a request for the disposal of licensed LLW. We support finalizing Part 61 to include a VLLW category. Part 61 already follows a gradational approach for safe disposal based on hazard – we recommend updating the system already in place. The current system isn't broken, it just needs to be updated.

Should the NRC continue with the interpretative rule approach, then the performance objectives found in Part 61 should be considered when granting an exemption request. There is more to the performance of a facility than just a yearly exposure metric. The review process should include an evaluation of environmental monitoring at the proposed disposal facility (including employees, groundwater, and soil). RCRA facilities typically do not monitor for radiological constituents (other than portal monitors) and this type of long term monitoring will need to be evaluated to demonstrate compliance.

An unintended consequence of the proposed interpretative rule is that the NRC will be deferring to state regulatory agencies having permitting authority over RCRA Subtitle C and D disposal facilities to approve such unlicensed facilities for the disposal of radioactive materials. It is not clear how the NRC can grant this authority. RCRA rules for the design and construction of disposal facilities are prescriptive, i.e., two liners with a 3-foot compacted clay base. Rules governing the disposal of LLW are more performance based. State agencies may or may not have the expertise to evaluate performance objectives for the disposal of LLW. The NRC has a formal process to approve state agencies to oversee the LLW management. It is unclear how the NRC will defer to state agencies to evaluate disposal facilities that are not under the jurisdiction of the NRC and have not been approved under the agreement state process for purposes of disposing VLLW.

Question 5: The regulation in § 20.2001 is currently identified as a compatibility C regulation for purposes of Agreement State compatibility. In light of this proposed interpretive rule, does the compatibility designation raise issues that the NRC should consider?

Answer 5: As stated previously, 20.2001 is general in nature and not the proper place to make this change. Since many states have adopted Part 61 and all states that host a licensed LLW disposal facility have adopted Part 61, updating Part 61 to include VLLW is a more rounded way

to deal with this issue. The NRC should finalize Part 61 with compatibility Category C for LLW classifications and performance objectives.