

States can enter into agreements with the NRC such that the NRC relinquishes Federal authority and the Agreement States assume regulatory responsibility over certain byproduct, source, and small quantities of special nuclear material under State laws. The degree of compatibility for such programs is determined by NRC. (NRC also retains certain functions, such as licensing and oversight of nuclear power plants.) NRC also reviews Agreement State programs for continued adequacy to protect public health and safety and compatibility with NRC's regulatory programs. We understand that State programs will have to evaluate carefully this approach and any implementing regulations issued by the NRC as they would apply to specific hazardous waste disposal facilities. We also understand that some States have statutory restrictions on disposal of radionuclides with hazardous waste, and that others may be otherwise opposed to allowing such disposal. However, many States already allow disposal of waste with very low radionuclide concentrations in RCRA Subtitle C or D landfills on a case-by-case basis. The approach that we are presenting in this ANPR would not affect NRC's or the States' authority under the AEA to make such individual decisions for mixed waste under their purview. However, identifying acceptable concentrations of radionuclides in LAMW (and/or low-activity radioactive waste in general) in cooperation with the NRC, should allow a more consistent approach supported by rigorous technical analyses while providing a regulatory framework to ensure that disposal of LAMW/LARW in hazardous waste landfills is protective of human health and the environment.

Previous discussions with State regulators have raised a number of important questions that we believe all States should consider, including:

- Whether a disposal facility's RCRA permit would need revision;
- How even reduced dual regulation would affect the disposal facility's day-to-day operation (assuming NRC and/or DOE opt to exert some authority over the disposal facility);
- How corrective actions would be addressed;
- To what extent public input should be sought; and
- Whether the State should consider further limits on the facilities or the waste.

Our authority is limited and our standard may not resolve all such issues. Changing the regulatory system for mixed waste disposal requires action from both Federal and State authorities

to provide a workable, protective, and comprehensive institutional framework. We recommend that States consider how they might use their distinct authorities to assist in developing such a framework. We welcome comment from States that would facilitate a workable approach to a meaningful standard incorporating radionuclide concentrations in the waste. We are also interested in knowing whether States believe such a standard should allow the flexibility to dispose of higher concentrations if disposal facilities implement additional radiation protection provisions or demonstrate site-specific conditions particularly favorable for containment and isolation of radionuclides.

2. State Programs

a. Facility Permitting/Public Participation. Although we believe that the technical approach to low-activity mixed waste disposal is sound, we recognize that we are considering disposal of radionuclides in facilities that were not sited or permitted with the expectation that they would receive significant quantities of such material. We anticipate that States will view the facility's RCRA permit as one means to ensure the State retains the level of RCRA oversight it believes necessary, although legal considerations suggest that the ability to use a RCRA permit as a vehicle to implement provisions related to AEA material would be limited. We also believe that public participation in the States' adoption of this proposed approach to LAMW disposal is necessary. In general, we believe that the existing RCRA permitting and NRC or Agreement State regulatory processes should provide ample opportunity for public involvement. We request comment on this assumption.

If EPA decides to conduct a rulemaking, public participation will necessarily be part of that process. In addition, when a RCRA permit is modified, the extent of the modification determines the amount of public participation required. For example, if a facility wants to accept a completely new waste stream for disposal (that is, a fundamentally different kind of waste), this is a significant permit modification requiring certain public participation activities. However, adding additional constituents to the ground-water protection program is less significant because it may not by itself represent a change in the way the facility operates or the waste it handles. Again, there would be legal considerations involved in addressing AEA material through the RCRA permit.

We anticipate that NRC might choose from a variety of alternatives, described in section F, to implement the approach described in this ANPR. NRC will conduct a rulemaking with public participation to establish the manner in which it will implement the approach presented here.

We are interested in public comment on the issue of public participation, and how the States' adoption process would provide an opportunity for public participation.

b. Implementation at the Disposal Facility. Although a RCRA-C disposal facility that accepts low-activity mixed waste under the approach presented here may have to modify its operations, we are optimistic that these modifications will not have to be extensive or costly. The facility certainly may need to instruct its workers on the potential effects and proper handling of radioactive material and take steps to limit exposures, although it may not have to apply a full radiation worker program that includes dosimetry. Most facility requirements related to radionuclides likely will be extensions of the administrative, recordkeeping, environmental monitoring, and reporting requirements already involved in hazardous waste disposal. We expect to model a fairly conservative worker exposure scenario, in part, to keep additional requirements minimal. We expect that NRC will address during its rulemaking process the issue of the appropriate level of worker training and procedures needed, if any, to limit exposures to LAMW.

The one major aspect of the facility's operation that may need significant modification is waste acceptance. Because the LAMW disposal concept is based on the radionuclide content of the waste, the facility must be able to verify that the waste accepted for disposal complies with the rule. This situation is analogous to the current requirement that hazardous waste comply with the land disposal restrictions in 40 CFR part 268. In that case, both the generator and treatment facility must certify that the waste does or does not meet the standards in part 268, and attach any supporting information, including waste analysis. Before it can dispose of waste, the disposal facility must have the appropriate certifications and supporting information, and must make certain that the waste accepted for disposal indeed meets the RCRA land disposal restrictions.

At present, generators of low-level radioactive waste are required to certify, before disposal, the radiological content of their LLRW. Generators of LLRW frequently base their characterizations