

effect, expand the disposal options available for LAMW.

We recently took a similar approach to minimize dual regulation for mixed waste. Recognizing the compliance difficulties associated with the dual regulatory framework applicable to mixed waste, we promulgated subpart N to 40 CFR part 266 ("Conditional Exemption for Low-Level Mixed Waste Storage, Treatment, Transportation and Disposal"). (See 66 FR 27218, May 16, 2001.) This conditional exemption provides for a reduced regulatory burden for facilities that store, treat, transport, or dispose of mixed low-level waste (MLLW). Under certain conditions, certain mixed wastes are exempt from RCRA regulation, leaving only the requirements of the AEA to govern their storage, treatment, transportation.

In addition to LAMW, there are a variety of wastes with relatively low concentrations of radioactivity such as certain TENORM waste, certain AEA materials and certain decommissioning wastes for which the present institutional framework is less than clear. Some wastes are tightly regulated from origin through final disposal while others are presently unregulated. These wastes present a variety of radiological risks and, ideally, wastes with similar risks should be managed proportionately to the risk they represent. In this regard, there are a variety of tools that may achieve acceptable risk levels, with regulatory controls being one such tool. However, we recognize that other tools, such as voluntary guidance, "best practices," industry standards, and the like have the potential to result in acceptable risk levels. In section III of this document, we seek comment on the use of these non-regulatory approaches for assuring and achieving acceptable risk levels from the disposal of these various wastes and what role EPA should play in creating a consistent and protective framework for limiting risk. Just as importantly, our ANPR seeks information regarding the characterization of wastes that fall in these categories, or information on other wastes that might be considered in conjunction with those named in this ANPR. Such information can only help to better characterize the risk inherent in these waste categories and lead to a more consistent, protective institutional framework.

We believe that the approach presented in today's action could provide the necessary flexibility for the safe disposal of LAMW and other LARW and might facilitate site cleanups. Informal discussions with various

stakeholders (commercial mixed waste generators, DOE, disposal facility operators, State regulators, public interest groups) suggest a broad level of interest in the potential advantages of this approach. Today's document offers an opportunity for stakeholders to provide detailed comment on a variety of concepts and possibilities that could be used in a future rulemaking. If affected entities demonstrate support for such a rulemaking and provide information needed to develop technical and economic analyses, we would have a strong basis to pursue this effort beyond the ANPR stage. Similarly, NRC could use the approach described in this document to develop regulations addressing the disposal of LAMW or other low activity radioactive wastes from its (or Agreement State) licensees. In an effort that may affect the disposal of LARW, NRC held a workshop on May 21–22, 2003, to discuss alternatives for safely controlling solid materials that have no, or very small amounts of, radioactivity. One alternative for that material is placement in a RCRA Subtitle C (hazardous waste) or Subtitle D (solid waste) disposal facility. Therefore, some of the issues discussed in that workshop may be similar to some of the approaches discussed in this ANPR. Background materials (including the information collection efforts conducted by NRC) and current activities (including recent documents issued and plans for stakeholder input), as well as transcripts of the workshop, can be found at [http://ruleforum.llnl.gov/cgi-bin/rulemake?source=SM\\_RFC&st=ipcr](http://ruleforum.llnl.gov/cgi-bin/rulemake?source=SM_RFC&st=ipcr).

## II. How Can the Disposal of LAMW Be Simplified?

As noted above, we have recently promulgated regulations that describe conditions under which RCRA defers to the NRC and Agreement State requirements under the AEA for the storage, treatment, transportation, and disposal of mixed low-level waste. We based this deferral on our determination that the AEA requirements as addressed by NRC's regulations for management of radioactive waste offered an adequate degree of human health and environmental protection when compared to that offered by RCRA for the hazardous components of MLLW. Our RCRA authority is much more comprehensive and wide-ranging than our AEA authority. Under RCRA, we define hazardous waste and regulate hazardous waste generation, transportation, treatment, and disposal, including the operation of facilities handling hazardous waste. However, RCRA specifically excludes certain AEA

material from its jurisdiction (40 CFR 261.4(a)(4)). Under the AEA, for the protection of the general environment, we can establish generally applicable radiation protection standards that apply outside the boundaries of locations under the control of persons possessing or using radioactive material. NRC and DOE are responsible for establishing requirements for disposal of AEA material by such persons. For example, we have used this AEA authority to establish effluent release limits from facilities comprising the uranium fuel cycle in 40 CFR part 190. In the case of low-activity mixed waste a dual regulatory framework already exists to address the storage, treatment, transportation, and disposal of such waste. With the promulgation of subpart N to 40 CFR part 266, some of these requirements are eased but widespread implementation of this rule awaits adoption by the States before it can be implemented. (See 66 FR 27257, May 16, 2001.)

In an effort to further reduce the burden of this dual regulatory framework for mixed waste, one option would be to promulgate a standard (such as regulatory limits for radionuclides in the waste) in coordination with the NRC allowing the disposal of LAMW in Subtitle C (hazardous waste) RCRA landfills. We believe an appropriate rulemaking by EPA and NRC of this nature will achieve the same level of protectiveness while at the same time significantly reducing the effort (and cost) otherwise required to comply with two separate regulatory regimes. We focus on disposal because we are aware of a few thousand small generators who store their mixed waste indefinitely because of the lack of disposal options, or the high costs of disposal. We are concerned that this situation may lead to mishandling, illegal dumping, or the elimination of research on, and use of, medical diagnostic techniques resulting in less than optimum health care. A protective regulatory framework that is less expensive and less burdensome would encourage prompt disposal of such waste, avoiding the risks of mishandling and illegal disposal, while improving options for health care. Some Subtitle C treatment standards for land disposal result in stabilized, solidified, or vitrified treatment residues that will immobilize radiological components, as well as hazardous constituents. Also, RCRA requires landfills to have certain engineered barriers to minimize infiltration and prevent releases. These factors make disposal of LAMW in RCRA hazardous waste landfills an