

have also collected questions at the end of sections II, III, and IV, and additional questions may be found in the "Request for Information" sections (see the "Outline of Today's Action"). The questions at the end of each section are focused on the material presented in those sections; however, commenters may feel that information in a later section is relevant to a question in an earlier section, or vice versa. We encourage commenters to address the questions as they believe most appropriate. Further, we welcome comments on any aspect of the text, not just on those points for which we specifically request comment. However, to facilitate our evaluation of and response to public comment, we ask that commenters clearly identify which issue(s) they are addressing and refer to relevant portions of the text in their comment.

### Outline of Today's Action

#### I. Why Are We Publishing Today's ANPR?

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

##### A. What Needs to be Done to Allow Protective Disposal of LAMW?

##### 1. Assess Characteristics of LAMW

##### 2. Assess Alternative Disposal Methods

- RCRA Subtitle C Land Disposal
- Establish a Risk or Dose Basis for Allowable Concentrations
- Coordination with Nuclear Regulatory Commission

##### B. Why is There a Need to Simplify Disposal of LAMW?

##### 1. Dual Regulatory Structure

##### 2. Recent EPA Mixed Waste Actions

##### C. How Would the RCRA Regulatory Framework Support a Viable Disposal Concept?

##### 1. Technological Basis for Disposal (RCRA Hazardous Waste Landfill Criteria)

##### 2. RCRA Treatment Standards

##### 3. RCRA Disposal Facility Operating Standards

##### 4. How does AEA Licensing Compare to RCRA Permitting?

##### D. What Methods Could be Used to Assess the Risk of Disposing of LAMW?

##### 1. Modeling as a Basis for Establishing Risk or Dose Basis

##### 2. Comparison of Risks from Radioactive and Hazardous Waste Disposal

##### 3. Modeling Scenarios

##### a. Situations to be Addressed

##### b. Long-term Disposal Cell Performance

##### i. General Discussion

##### ii. "Wet" and "Dry" Sites

##### iii. Modeling Timeframe

##### c. "Off-Normal" Events

##### d. Disposal Facility Worker

##### e. Transportation Worker

##### f. Post-Closure Site Use

##### 4. Other Considerations Affecting Risk Analysis

##### a. Use of Part 61 Classification System

##### b. Waste Form and Packaging

##### c. Activity Caps

##### d. Unity Rule

#### 5. Risk or Dose Basis for a LAMW Standard

#### E. What Legal Authority Does EPA Have Under the AEA?

#### F. What Regulatory Approaches Could NRC Take With Respect to LAMW?

#### 1. Regulatory Approaches That Could Apply to RCRA Facilities

#### 2. Regulation of LAMW Generators

#### G. How Might DOE Implement a LAMW Standard?

#### 1. DOE's "Authorized Limits" System

#### 2. DOE's Radiological Control Criteria

#### H. How Would States Implement the Standard?

#### 1. Would States be Required to Implement the Standard?

#### 2. State Programs

#### a. Facility Permitting/Public Participation

#### b. Implementation at the Disposal Facility

#### c. Agreement States d. Non-Agreement States

#### 3. Regional Low-Level Radioactive Waste Compacts

#### I. Request for Information: LAMW

#### J. Background Information Regarding LAMW

#### 1. Commercial LAMW

#### 2. DOE LAMW

#### K. Questions for Public Comment: Disposal Concept for LAMW

#### III. Is it Feasible to Dispose Other Low-Activity Radioactive Wastes (LARW) in Hazardous Waste Landfills?

#### A. How Would the Proposed Disposal Concept Apply to Other Low-Activity Radioactive Wastes?

#### 1. From a Technological Perspective

#### 2. Pre-UMTRCA Byproduct Material

#### 3. TENORM

#### 4. Low-Activity LLRW/Source Material Exempted by NRC

#### B. What Legal and Regulatory Issues Might Affect Applying the RCRA-C Disposal Concept to Other Low-Activity Radioactive Wastes?

#### 1. Lack of Federal Regulation

#### 2. How They are Regulated Now

#### a. Pre-UMTRCA Byproduct Material (FUSRAP)

#### b. TENORM

#### 3. Existing Federal Regulation (Low-Activity LLRW)

#### 4. Potential for a New "Class" of Disposal Facilities

#### C. Request for Information: Other LARW

#### D. Background Information Regarding Other LARW

#### 1. Pre-UMTRCA Byproduct Material (and FUSRAP)

#### 2. TENORM

#### 3. Low-Activity LLRW/Source Material Exempted by NRC

#### 4. Decommissioning Wastes

#### E. Questions for Public Comment: Disposal of Other LARW in Hazardous Waste Landfills

#### IV. What Non-Regulatory Approaches Might be Effective in Managing LAMW and Other Low-Activity Radioactive Wastes?

#### A. General Discussion

#### 1. Advantages and Disadvantages of Non-Regulatory Approaches

#### 2. Examples of Existing EPA Non-Regulatory Programs

#### 3. National Academy of Sciences Studies

#### B. Non-Regulatory Approaches for LAMW and Other Low-Activity Radioactive Wastes

#### 1. Develop Guidance

#### 2. Partner with Selected Stakeholders to Develop Waste-Specific "Best Practices"

#### C. Request for Information: Non-Regulatory Alternatives to Our Disposal Concept

#### D. Questions for Public Comment: Non-Regulatory Alternatives to Our Disposal Concept

#### V. Statutory and Executive Order Reviews

#### A. Executive Order 12866: Regulatory Planning and Review

### I. Why Are We Publishing Today's ANPR?

Today's ANPR introduces a variety of approaches that might be applicable to certain low-activity radioactive waste categories (LARW).<sup>1</sup> We (the Environmental Protection Agency) seek public comment on the appropriateness of these approaches towards a coherent framework assuring appropriate management and disposal of such a diverse set of LARW. As discussed below, our intent is to develop a regulatory framework applicable to all LARW, which could include disposal of LARW at RCRA facilities, whether radioactive material addressed by the Atomic Energy Act under the jurisdiction of NRC or not. Our more immediate focus regards a simpler but protective approach to the present dual regulatory system applicable to low-activity mixed waste (LAMW). We seek comment on approaches that would reduce the burden of the dual regulatory framework for LAMW. One possibility would be to establish a regulatory framework to allow, under certain conditions, the disposal of LAMW at hazardous waste landfills under the purview of Subtitle C of RCRA. Under this approach, we and NRC could reach agreement on the appropriate conditions under which such disposal could take place. Ideally, the conditions that would apply to disposal of low-activity waste would be much simplified over those requirements that now apply to low-level waste disposal facilities which allow the disposal of higher concentrations of radioactive material. Upon such agreement, NRC would need to take regulatory action to allow AEA material under its jurisdiction to be sent to Subtitle C landfills. This would, in

<sup>1</sup> It is important to understand that the term "low-activity" does not have a precise statutory or regulatory definition. We use the term throughout today's action to refer to wastes in which the radioactivity is low enough to potentially allow management alternatives that do not incorporate the entire range of radiation control practices, such as disposal at RCRA Subtitle C landfills. The situations and conditions that would define "low-activity" waste are the subject of today's action and potentially future rulemakings.