Comments Of
The Utility Solid Waste Activities Group,
The Edison Electric Institute,
The American Public Power Association, and the National Rural Electric Cooperative Association
On The
"Advance Notice of Proposed Rulemaking: Approaches to an Integrated Framework for Management and Disposal of Low Activity Radioactive Waste"
68 Fed. Reg. 65120 (November 18, 2003)

submitted to
The United States
Environmental Protection Agency
Docket No. OAR-2003-0095

May 17, 2004

Of Counsel

Piper Rudnick LLP
1200 19th St., N.W.
Washington, D.C.

TABLE OF CONTENTS

Page

INTRODUCTION 1

DISCUSSION 4

I. EPA Correctly Describes The Problems Relating to The Disposal of LAMW And the Need for Increased Disposal Options 4

II. Disposal of LARW In RCRA Subtitle C Facilities Also Should Be Developed 8

III. EPA Should Defer Exploring Disposal of LARW In RCRA-D Facilities Pending Promulgation of an NRC Clearance Standard For Solid Waste 10

IV. USWAG Believes that NRC's Class A Radioactive Limits Are Generally Appropriate For Disposal of LAMW and LARW in RCRA-C Facilities and That EPA Should Rely on Existing NRC Scenarios in Assessing Risk 11

V. EPA Should Set Concentration Limits Applicable To RCRA-C Facilities Accepting LAMW and LARW, As Opposed to Establishing Additional RCRA-C Operating Standards 13

VI. EPA Should Apply Curie Or Volume Limits To The Total Radionuclide Content In Each Disposal Facility Consistent With Low-Level Radioactive Waste Disposal Facility Regulations 15

VII. Low Activity Bulk Waste Should Be Included in the Proposal 15

VIII. EPA Should Adopt The Waste Form, Stabilization And Solidification Requirements Applicable To NRC-Licensed Facilities For The Disposal Of Radioactive Waste In RCRA-C Facilities 16

IX. The NRC Should Provide Exemptions From NRC Licensing Requirements For RCRA-C Facilities And EPA Should Do More to Encourage States To Adopt These Integrated Regulations for LAMW and LARW s 17

Comments Of The Utility Solid Waste Activities Group, The Edison Electric Institute, The American Public Power Association, And The National Rural Electric Cooperative Association
On The "Advance Notice Of Proposed Rulemaking: Approaches To An Integrated Framework For Management And Disposal Of LARW"
68 Fed. Reg. 65120 (November 18, 2003)

The following comments in response to EPA's advance notice of proposed rulemaking addressing the disposal of low-activity mixed waste ("LAMW") and low-activity radioactive waste ("LARW") in RCRA disposal facilities ("the ANPR") (68 Fed. Reg. 65120 (Nov. 18, 2003)) are submitted on behalf of the Utility Solid Waste Activities Group ("USWAG"), the Edison Electric Institute ("EEI"), the American Public Power Association ("APPA"), and the National Rural Electric Cooperative Association ("NRECA") (collectively referred to herein as "USWAG").[1]

INTRODUCTION

Since its formation in 1978, USWAG has participated in virtually every major RCRA rulemaking to present the views of its members on the need to develop a cost-effective, practical, and environmentally protective hazardous waste regulatory program. This mission has included working proactively with the Environmental Protection Agency ("EPA") and other regulatory agencies to help minimize the application of

[1] USWAG was formed in 1978, and is an association primarily dedicated to assisting members in the management of wastes and the beneficial use of materials associated with the generation, transmission, or sale of electricity. USWAG is comprised of approximately 80 energy industry operating companies and associations, including the EEI, the APPA, and NRECA. EEI is the principal national association of investor-owned electric power and light companies. APPA is the national association of publicly owned electric utilities. NRECA is the national association of rural electric cooperatives. Together, USWAG members represent more than 85% of the total electric generating capacity of the U.S. and service more than 95% of the nation's consumers of electricity.

unnecessary and burdensome dual regulations on electric utility waste streams. An important achievement in this regard was USWAG's strong support for EPA's development of the conditional exemption from hazardous waste regulation for the storage, treatment, transportation, and disposal of low-level radioactive and hazardous waste ("mixed waste") (66 Fed. Reg. 27218 (May 16, 2001) (codified at 40 C.F.R. Part 266, Subpart N). This recent regulation – referred to as the "mixed waste conditional exclusion" or "mixed waste rule" – has resulted in much-needed regulatory relief for regulated entities *and* regulators in eliminating redundant (and often inconsistent) regulatory regimes for mixed waste.

Notwithstanding the mixed waste rule, more should and can be done to facilitate the environmentally sound and cost-effective disposal of mixed waste. EPA's advance notice of proposed rulemaking ("ANPR") is a step in the right direction. Expanding the disposal options for low-activity mixed waste ("LAMW") to include RCRA Subtitle C hazardous waste disposal facilities (referred to as "RCRA-C" facilities) would immediately expand LAMW disposal capacity and, in some cases, provide for the first time viable and readily available disposal options for LAMW. USWAG also supports the concept of extending the availability of RCRA-C disposal facilities to other categories of qualified low-activity radioactive waste ("LARW"), even if such waste is not hazardous under RCRA.

Many of the comments already filed in this rulemaking raise objections to development of a generic regulation allowing for the disposal of LARW in RCRA Subtitle D facilities. USWAG wishes to make clear that it believes EPA should *defer* pursuing this particular option pending promulgation by the Nuclear Regulatory Commission

("NRC") of clearance standards for radionuclide levels in solid waste. Rather, USWAG is only endorsing at this time the concept of expanding the disposal options for LAMW and LARW to include fully permitted RCRA-C disposal facilities. USWAG believes that EPA is fully justified in suggesting that the discrete universe (roughly 20) of highly regulated RCRA-C disposal facilities can offer the same level of protectiveness for LARW and LAMW as NRC low-level waste disposal facilities, while at the same time significantly reducing the effort and cost otherwise required to comply with two separate regulatory regimes. In short, this is an important and necessary rulemaking initiative, and USWAG stands ready to assist EPA in this important effort.

In addition to the above, USWAG's major comments are summarized below.

- USWAG agrees with EPA's description of the problems relating to the disposal of LAMW and LARW. There are limited disposal options, and disposal costs can be prohibitively expensive. Expanding disposal options to include RCRA-C disposal facilities would help immediately alleviate these problems and minimize prolonged on-site storage of low-level radioactive waste.
- USWAG agrees with EPA that the RCRA Subtitle C requirements provide a uniform level of waste containment and isolation technology that warrants confidence in their ability to address low concentrations of radionuclides in LAMW and LARW.
- The NRC's Class A radioactive limits generally are appropriate for defining the parameters of low-level radioactive wastes eligible for disposal in RCRA-C facilities.
- EPA and NRC should establish dosed-based concentration limits applicable to all low-level radioactive wastes eligible for disposal in RCRA-C facilities, as opposed to establishing additional RCRA-C operating or design controls.
- EPA should apply curie or volume limits only to the total radionuclide content in each disposal facility consistent with the low-level radioactive waste disposal facility requirements.
- EPA should include bulk low-level waste in this rulemaking effort, and alternative standards for stabilization should be available for bulk wastes depending on activity levels.
- The NRC should provide general exemptions from NRC disposal requirements for low-level radioactive wastes disposed in RCRA-C facilities. If the NRC insists

on licensing procedures, it should issue general licenses to RCRA-C facilities accepting low-level wastes.

DISCUSSION

I. EPA Correctly Describes the Problems Relating to the Disposal of LAMW And the Need for Increased Disposal Options.

Notwithstanding promulgation of the mixed waste rule in 2001, EPA correctly recognizes that regulatory barriers still exist that unnecessarily complicate and burden the cost-effective management and disposal of LAMW (as well as LARW). 68 Fed. Reg. at 65124, 65127. The mixed waste rule provides important regulatory relief from RCRA's hazardous waste storage and treatment standards provided the generator of the waste complies with specified management conditions, and all applicable Nuclear Regulatory Commission ("NRC") controls. *See, e.g.*, 40 C.F.R. §§ 266.220-.230. The rule also allows for the disposal of mixed waste in an NRC or NRC-Agreement State disposal facility if the waste has been treated to meet applicable RCRA Subtitle C land disposal restriction ("LDR") standards, and meets applicable NRC transportation and disposal requirements. *Id*. at § 266.315.

While these are important and necessary management options, more must be done to expand the disposal options for LAMW beyond dually permitted RCRA/NRC disposal facilities and NRC disposal facilities that meet the conditions of the mixed waste rule. This is because the former are essentially non-existent[2] and the latter few and far between. This is due, in part, to the continuing reluctance of various States to approve the siting of low-level waste disposal facilities within their boundaries. There

[2] EPA notes that there is only one facility currently licensed to accept radioactive waste with a hazardous component. 68 Fed. Reg. at 65127.

continues to be local opposition to the licensing of new sites, which only perpetuates the scarcity of disposal options. EPA's proposal in the ANPR to expand these disposal options by allowing qualified LAMW to be disposed of at existing RCRA-C facilities would provide immediate and much-needed additional disposal capacity. As a practical matter, the ANPR simply represents a natural extension of the mixed waste conditional exclusion, whereby EPA and NRC worked together to eliminate the dual regulation of mixed waste when disposed of at NRC-licensed facilities. It is now time for EPA and the NRC to take the next step and allow for the disposal of low-activity mixed wastes in RCRA-C disposal facilities. As EPA correctly explains, while RCRA and NRC disposal facilities embody different regulatory philosophies (design-based versus performance-based), ultimately, the "purpose of both systems is to contain and isolate the waste in order to protect public health and the environment." 68 Fed. Reg. at 65128. In this regard, USWAG fully concurs with EPA that "RCRA's uniformity of design, and the specific engineering features required [for RCRA disposal facilities], provide assurance that RCRA-C facilities can limit contact of waste with water (and subsequent leachate generation) and should allow [for] disposal of LAMW containing low concentrations of radionuclides." *Id*.

Recognizing that RCRA-C facilities are potential candidates for receiving LAMW, EPA requests comment on the types of LAMW generated by members of the regulated community and the costs associated with the management of such wastes under the current regulatory regime. *Id.* at 65142. USWAG's response to these questions underscores the need for EPA to move forward on this initiative. Based on a preliminary sampling of its members, it is plain that electric utilities continue to generate

a variety of LAMW including, among other things, F- and D-code LAMW from cleaning and decontamination operations, degreasing wastes, TENORM-contaminated metals and metal oxides from generating units; abrasive media contaminated with RCRA metals (generated during coating/paint removal); lead and solvent contaminated debris from coating repair; and legacy wastes, such as freon sludges and filters. Most of these wastes have low levels of radioactivity; indeed, all of the LAMW identified by USWAG members in preparing these comments were reported as Class A radioactive waste, with most of the waste falling in the lower range of the Class A radionuclide concentration limits.

Combined with the continuing variety of LAMW generated by utilities, disposal costs still remain exorbitant in many cases, due to the dearth of qualified disposal facilities. Put simply, the small number of LAMW disposal options allow some facilities to charge prices without regard to competition, and it is commonly recognized that the disposal costs of LAMW generally far exceed those for hazardous wastes that do not contain a radioactive component (or, for that matter, low-level radioactive wastes that do not contain a hazardous component). While some LAMW disposal capacity exists, USWAG members agree that expanding the LAMW disposal market to include RCRA-C facilities would result in immediate and significant cost savings and would facilitate the prompt removal and disposal of LAMW from generating sites.

For example, one USWAG member reports that it is not uncommon to be charged anywhere *between $10,000 to $15,000 to process and dispose of a single 55-gallon drum of solid LAMW*. Another member reports that to dispose of five partially filled 55-gallon drums of LAMW, it was required to transfer and store the waste at

several locations around the United States and engage in numerous interactions with federal and state regulators regarding applicable treatment and disposal methods. When all was said and done, the company's final treatment and disposal costs *exceeded* $250,000. Still another USWAG member reports that it has been quoted a bid of at least $150,000 to dispose of 14 LAMW partially filled drums.

These reports from the field underscore the fact that LAMW disposal costs are inordinately expensive and will become even more expensive in the future unless additional disposal capacity becomes available. Without economically acceptable disposal options, EPA correctly notes that generators may have no alternatives except to engage in the long-term storage of LAMW. *Id.* at 65127. This problem is compounded by the fact that many RCRA-authorized states have not yet adopted the mixed waste conditional exclusion promulgated by EPA in 2001. *Id.* at 65124. This means that the mixed waste rule's added disposal option of allowing LAMW to be disposed of in qualified NRC disposal facilities is not available for most LAMW generators.[3] The failure of RCRA-authorized states to act promptly in adopting the mixed waste rule – and thereby precluding mixed waste generators from using the regulatory relief provisions contained in that rule – has made it more urgent for EPA to pursue this initiative under which LAMW could be safely disposed in RCRA-C facilities.

Finally, USWAG believes that this rulemaking need not be a prolonged effort. There is a small and well-defined universe of RCRA-C disposal facilities in the United

[3] In this regard, it is critically important that EPA reach out more aggressively to the RCRA-authorized states to encourage them to adopt the existing mixed waste conditional exemption. Indeed, the failure of the states to adopt this rule only frustrates the prompt and environmentally sound disposal of LAMW in such states.

States (roughly 20, *see id*. at 65143). Examining this limited number of facilities and confirming that they are in fact fully qualified to manage LAMW should not be an elaborate or involved task, especially given that all such facilities are already subject to stringent and uniform RCRA Subtitle C operating, design, and closure standards. EPA should move forward as quickly as possible in pursuing this initiative for LAMW.

II. Disposal of LARW In RCRA Subtitle C Facilities Also Should Be Developed.

In addition to expanding the disposal options for LAMW to include RCRA-C disposal facilities, EPA also seeks comments on allowing these same facilities to accept purely LARW – *i.e.*, low-level radioactive waste that is *not* also hazardous. 68 Fed. Reg. at 65148. USWAG believes that this disposal option also makes eminent sense; plainly, if a RCRA Subtitle C disposal facility is deemed protective for purposes of receiving LAMW (which contains both low-level radioactive waste and RCRA hazardous waste), then certainly the same disposal facility should be fully qualified to receive material that contains only low-level radioactive waste. USWAG recognizes, however, that because any initiative allowing for the disposal of LARW in RCRA-C facilities would involve larger volumes of wastes than would the similar initiative for LAMW (which is a subset of LARW), EPA may choose to pursue this option on a separate track than that for LAMW.

Notwithstanding the timetable for expanding the disposal options for LARW, this option would provide significant regulatory and economic relief for all LARW generators; indeed, potentially far greater relief than for simply LAMW. Based on a preliminary polling of USWAG members, the vast majority of their LARW qualifies as Class A waste. Currently, there are several NRC-licensed facilities authorized to accept LARW,

and even these numbers will drop as existing facilities close their doors to LARW generated outside the relevant regional low-level waste compacts. *See id*. at 65141.

As EPA is aware, currently, there are two licensed disposal facilities that can accept the full range (Class A, B, and C) of LARW and one privately owned licensed facility that is licensed to accept Class A LARW ("Envirocare"). Of the two facilities that can accept all LARW, Hanford, Washington is closed to generators outside the Northwest Compact and Barnwell, South Carolina, is scheduled to close to generators outside the Atlantic Compact in 2008. *Id*. at 65141 & n.20. Further, even though Barnwell is still accepting LARW from out-of-compact generators, the contractual obligation for "reserving" space at Barnwell is expensive. Unless new facilities open between now and 2008 (which is completely speculative), generators outside the Northwest or Atlantic Compacts will have no disposal options for Class B or C LARW after 2008.

After 2008, Envirocare may be the *only* facility licensed to accept Class A LARW from many generators across the country. Additionally, access to disposal at the Envirocare facility is made less certain as the Utah Legislature reportedly has recently passed legislation limiting the waste that can be received and has increased taxes on received waste. Putting aside the adverse economic implications of having a single facility set disposal prices for LARW for most of the country, potentially severe disposal shortfalls are likely to arise if only one LARW facility is available for most LARW generators (those outside of the Atlantic Compact). This situation is especially likely given the lack of new applicants for hosting AEA-licensed disposal facilities and the

significant increases in costs associated with siting any new facilities due to the changing policies in the states where such facilities could potentially be located.

As is the case with LAMW, if disposal options for LARW continue to become increasingly scarce and prohibitively expensive, long-term storage of LARW will become the only option for many generators. Allowing LARW to be disposed of in RCRA-C facilities would greatly enhance competition between disposal facilities, streamline the regulatory process for the management and disposal of all LARW, and lower costs to all involved participants, while continuing to protect human health and the environment. There is no reason not to pursue this initiative.

III. EPA Should Defer Exploring Disposal of LARW In RCRA-D Facilities Pending Promulgation of an NRC Clearance Standard For Solid Waste.

EPA requests comment on whether wastes containing low concentrations of radioactive materials are suitable for disposal in RCRA-D facilities. *Id.* at 65126. USWAG recommends that EPA defer development of a radionuclide concentration limit appropriate for the disposal of LARW in RCRA-D facilities pending establishment by the NRC of clearance standards for radionuclide levels in solid waste. *See* 68 Fed. Reg. 74003 (Dec. 22, 2003) (identifying July 2004 as the target date for a notice of proposed rulemaking on this issue). Any attempt by EPA to establish radionuclide concentration limits for solid waste landfills prior to completion of the NRC solid waste "clearance rule" would be premature and would likely need to be re-assessed after NRC publishes its final rule.

Pending development of the "clearance rule," regulated entities can continue to rely on the procedures set forth in 10 C.F.R. § 20.2002 for obtaining site-specific disposal approvals for NRC licensed materials. This existing regulatory regime has

proven to be effective by engaging state and local communities in the decision-making process involving site-specific disposal options for low-activity waste. USWAG also is concerned that attempting to expand this rulemaking initiative (at this time) to include Subtitle D facilities would complicate the rulemaking effort and could unintentionally result in derailing the timely completion of the more focused options discussed above, such as expanding the disposal options for LAMW and LARW to include RCRA-C facilities. Therefore, USWAG suggests that EPA defer this component of the ANPR for the time being.

IV. USWAG Believes that NRC's Class A Radioactive Limits Are Generally Appropriate For Disposal of LAMW and LARW in RCRA-C Facilities and That EPA Should Rely On Existing NRC Scenarios in Assessing Risk.

EPA seeks comment on whether the Class A maximum is an appropriate control on radionuclide concentration limits for the disposal of low activity radioactive waste in RCRA-C facilities. *Id.* at 65144. As an initial matter, USWAG believes that it makes sense for EPA to utilize the methodology established by the NRC in defining "classes" of radioactive waste (*see* 10 C.F.R. Part 61) to determine the radionuclide concentrations appropriate for disposal of LAMW and LARW in RCRA-C facilities. The NRC's existing classification system, whereby the applicable class of the waste is determined by short- and long-lived radionuclides with varying concentrations, is already well-established within the regulated community and its use in this rulemaking initiative will help to facilitate rapid implementation of any final rule.

With respect to radiation limits for disposal in RCRA-C facilities, USWAG generally believes that all Class A waste should be eligible for disposal in RCRA facilities. We recognize, however, that in certain circumstances, evaluating subsets of

Class A wastes may be warranted in determining eligible wastes for disposal in RCRA-C facilities. USWAG also believes that the same radionuclide concentration levels should be applicable to LAMW and LARW without a hazardous component, unless EPA is able to demonstrate that the hazardous characteristics of low-activity waste compound the effects of the radioactive properties.

Along the same lines, EPA requests information regarding adequate exposure scenarios and whether risk or dose measures are appropriate to assess long-term protection associated with the disposal of LAMW and LARW in RCRA-C disposal facilities . *Id.* at 65143-65144. Here, too, USWAG believes that EPA should adhere to the dose-based approach and exposure scenarios used by the NRC in establishing radionuclide limits appropriate for disposal of radioactive waste in NRC-licensed facilities. Because radiation protection standards set by the NRC and Agreement States are in terms of radiation doses and specific exposure scenarios applicable to workers and members of the public, it makes sense to apply the same approach in modeling risk concerning the disposal of LAMW and LARW in RCRA-C facilities. Indeed, since the radionuclide concentrations derived by the NRC for the different classes of radioactive waste were determined using a dose-based risk assessment and specific exposure scenarios, the EPA should be able to rely on NRC's analysis in determining the protectiveness of disposing of LAMW and LARW in RCRA-C facilities.

In this regard, USWAG questions what appears to an unnecessarily complicated and burdensome modeling approach suggested by EPA for re-examining in great detail the adequacy of RCRA-C design and operating standards for purposes of accepting LAMW. This analysis need not be such a complicated task. RCRA-C facilities are

already designed to safely accommodate the hazardous component of LAMW; that issue need not be re-addressed in this rulemaking. Rather, the only issue to be examined here is how to assess the risk from the management of the low-level radionuclide component of LAMW at RCRA-C facilities (*e.g.*, evaluating potential worker exposure and assessing the adequacy of containment provided by RCRA-C facilities). As noted above, in analyzing this issue, EPA should adhere to the dose-based approach and exposure scenarios used by the NRC in evaluating risk from the disposal of low-activity wastes in NRC-licensed facilities. This need not be a protracted or overly complicated effort and certainly should not be the cause for undue delay in pursuing this initiative.

V. EPA Should Set Concentration Limits Applicable To RCRA-C Facilities Accepting LAMW and LARW, As Opposed to Establishing Additional RCRA-C Operating Standards.

EPA seeks comment on what, if any, additional requirements would be necessary for RCRA facilities accepting LAWM or LARW. *Id*. at 65143. To encourage maximum participation by regulated entities in this regulatory integration effort, USWAG believes that EPA should establish a radionuclide concentration limit for LAMW and LARW that can be safely managed in *existing* RCRA-C facilities, as opposed to establishing *additional* design or operating requirements for RCRA-C facilities accepting these waste streams. Because RCRA-authorized states are now responsible for issuing RCRA-C permits (often in conjunction with EPA), the imposition of any additional operating requirements on such facilities would have the practical effect of lengthening the regulatory approval process. RCRA-authorized states are likely, in any event, to re-evaluate any conditions imposed under their RCRA programs in making

their own assessments regarding the conditions under which RCRA-C facilities can accept LAMW and LARW.

For example, while USWAG believes that existing RCRA-C facility standards – combined with radioactive regulatory limits – will ensure the protective management of LAMW and LARW in RCRA-C disposal facilities, authorized states could amend or supplement corrective action plans, facility personnel training and ground water monitoring plans on a facility-specific basis as necessary to address any unique radioactive waste issues. Therefore, EPA should limit its efforts to determining the level of radioactivity that all RCRA-C facilities can properly accept, as opposed to establishing new operating requirements. This would be consistent with EPA's interest in broadening disposal options for LAMW and LARW.

In establishing appropriate radioactive waste regulatory limits for RCRA-C facilities, EPA should also preserve the option of tailoring regulatory limits to specific site suitability parameters and protections (*e.g.*, "wet" versus "dry" sites). By preserving the flexibility to take into consideration site-specific parameters in establishing the conditions by which RCRA-C facilities can accept LAMW and LARW, EPA will further enhance the likelihood that the maximum number of facilities will be available to accept such wastes. This, in turn, will facilitate competition between disposal facilities and help provide cost-effective options for LAMW and LARW disposal (as opposed to prolonged on-site storage).

VI. EPA Should Apply Curie Or Volume Limits To The Total Radionuclide Content In Each Disposal Facility Consistent With Low-Level Radioactive Waste Disposal Facility Regulations.

EPA solicits comment on whether a curie or volume limit should apply to each disposal facility or disposal cell. *Id.* at 65144. USWAG recommends that EPA establish a regulatory regime based on a total curie limit for RCRA-C facilities accepting LAMW or LARW – consistent with NRC's regulatory levels for NRC-licensed facilities – but avoid attempting to establish *individual* disposal cell volume or curie limits at RCRA-C facilities. Establishing an overall facility curie limit applicable to LAMW and LARW received at a RCRA-C facility offers a far simpler and more practical program to administer and implement than attempting to establish individual disposal cell limits. This approach would provide facilities with the requisite flexibility in determining how to best manage the radioactive content in the LAMW and LARW disposed at the facility. Compliance with the facility's overall total curie limit could be readily demonstrated to regulatory authorities through appropriate record keeping requirements.

VII. Low Activity Bulk Waste Should Be Included in the Proposal.

EPA also asks whether low-activity bulk waste should be included in this rulemaking initiative. *Id.* at 65144. Potentially significant amounts of low-activity bulk waste can be generated by electric utilities, including dry active waste, and soil and debris during power plant decommissioning operations. USWAG believes these waste types are ideal candidates for inclusion in this regulatory initiative as RCRA-C facilities can readily manage these wastes in a fully protective manner. Further, because of their unique waste form, bulk wastes often are not readily amenable to traditional stabilization methods, but can be safely disposed in RCRA-C facilities based on alternative

standards keyed to the unique characteristics of the disposal facility. Therefore, USWAG recommends that the Agency allow for the disposal of bulk LAMW and LARW in RCRA-C facilities based on site-specific requirements that adequately address the potential for migration and airborne radioactivity during handling and disposal operations.

VIII. EPA Should Adopt The Waste Form, Stabilization And Solidification Requirements Applicable To NRC-Licensed Facilities For The Disposal Of Radioactive Waste In RCRA-C Facilities.

EPA solicits comment on the appropriate waste form, stabilization and solidification requirements for LAMW and LARW disposed in RCRA-C facilities. *Id.* at 65144. As a general matter, this issue turns on the nature of low-level waste involved. In the case of LAMW, the combination of existing RCRA LDR treatment standards (40 C.F.R. Part 268) and NRC radioactive stabilization conditions (*e.g.*, solidifying waste with a suitable media and dewatering in a suitable container) (10 C.F.R. § 61.56(a)(2)) will be more than adequate in ensuring the environmentally sound disposal of such wastes in RCRA-C facilities. Any additional waste form provisions would be unnecessary and would unduly burden the disposal of LAMW in RCRA facilities. Indeed, these are the basic stabilization and solidification requirements for the disposal of mixed waste in an NRC-licensed facility under the existing mixed waste rule (*see* 40 C.F.R. § 266.315); surely, these same conditions will be fully protective for disposing of the same wastes in a RCRA-C facility.

USWAG believes a different approach is warranted in the case of LARW. By definition, these wastes are not hazardous and, therefore, should not be subject to RCRA's LDR treatment standards for purposes of disposal in a RCRA-C facility. Rather,

LARW should be eligible for disposal in RCRA facilities conditioned on applicable and appropriate NRC waste form conditions. Depending on the waste type at issue, these include, among other things, waste packaging and stabilization requirements. 10 C.F.R. § 61.56(a). Therefore, EPA should defer to existing NRC waste form standards for LARW rather than attempting to superimpose RCRA Subtitle C standards on non-hazardous wastes. This will also help level the competitive playing field between NRC and RCRA-C disposal facilities.

IX. The NRC Should Provide General Licenses Or Exemptions From AEA Requirements For RCRA-C Facilities And States Should Be Encouraged To Adopt A Regulatory Framework Consistent With NRC and EPA's Approach.

A critical element for the successful implementation of this initiative is determining the appropriate roles of EPA, the NRC and the respective RCRA- and NRC-authorized NRC states. In this regard, EPA requests comment on the role that the NRC and States should play in allowing the disposal of LAMW and LARW in RCRA-C facilities. *Id.* at 65144. With respect to the NRC, EPA lays out several options, including (1) issuance of individual NRC licenses to RCRA-C facilities accepting LAMW or LARW, (2) issuance of general NRC licenses to RCRA-C facilities accepting AEA regulated waste, or (3) establishment by NRC of an exemption for qualified AEA waste disposed of at RCRA-C facilities, including modifying 10 C.F.R. § 20.2001 to allow transfer of NRC-regulated wastes to RCRA-C facilities. 68 Fed. Reg. 65138-39.

USWAG believes that the most practical and effective option is for the NRC to provide general exemptions from the AEA disposal requirements for low-activity wastes managed in qualified RCRA-C facilities. We are concerned that if the NRC chooses to issue specific NRC licenses to each RCRA-C facility as a condition of accepting LAMW

or LARW, the regulatory burdens, licensing delays, and other complications that exist under today's dual regulatory regime would continue and no practical relief will emerge from this effort. Put simply, requiring RCRA-C facilities to obtain site-specific individual licenses (which they can already do today) offers absolutely no regulatory incentive for new facilities to participate in this endeavor. This problem would only be compounded if the relevant facilities are located in NRC Agreement states because the number of regulatory agencies involved would be greater, thus increasing the likelihood of delay and potential inconsistencies in NRC licenses.

Establishing a conditional exemption from NRC licensing requirements for qualified RCRA-C facilities receiving LAMW or LARW offers the simplest and most direct approach. As EPA correctly recognizes, the NRC would still maintain the ability to conduct inspections, and the failure of a RCRA-C facility to meet applicable exemption conditions could lead to enforcement action by the NRC (and EPA). *Id*. at 65139. Indeed, this is precisely the approach adopted by EPA and NRC under the current mixed waste rule, although under this rule EPA has deferred to the NRC in directly overseeing and regulating the on-site storage and treatment of radioactive/hazardous mixed waste (with the EPA retaining enforcement authority, as the NRC would do under the ANPR proposal). The existing mixed waste rule is testimony to the fact that deferral to a single, lead agency in overseeing waste subject to dual regulatory regimes is the most cost-effective and practical approach for regulating such materials.

To the extent that the NRC wishes to play a more active role in the licensing of RCRA-C facilities, USWAG believes that the general licensing concept is the only

practical option. A general license could be patterned after RCRA's conditional exemptions from hazardous waste regulation. The NRC would set forth certain prerequisites to qualify for the general license – *e.g.*, meet applicable RCRA-C operating standards and waste must meet specific NRC radionuclide limits – and any facility meeting such criteria would be eligible to obtain a general license. Under the general license option, the NRC would retain its authority to inspect and enforce its requirements, including issuance of civil penalties where warranted. *Id*. at 65139. Again, however, USWAG believes the exemption option would be more effective and produce more positive results than the general license option.

It is also absolutely clear that widespread participation in this effort by the States is absolutely critical. Because this is so important to the success of this initiative, USWAG urges EPA to go beyond its traditional role of simply encouraging States to participate in this rulemaking and instead provide regulatory and/or economic incentives for participation by the States (*e.g.*, earmarking additional funding for joint training). For similar reasons, USWAG believes that EPA should take the lead on this proposal and ultimately be the lead regulatory body concerning the disposal of LAMW and LARW in RCRA-C facilities. Again, this is the approach taken by the NRC in the existing mixed waste rule.

* * * * *

USWAG appreciates the opportunity to submit comments on this important rulemaking initiative. We look forward to working closely with the Agency as it moves forward with this effort.