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USWAG

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RULES AND DIRECTIVES BRANCH USNRC

Via Electronic and First Class Mail

Chief
Rules and Directives Branch
Mail Stop T6-D59
U.S. Nuclear Regulatory Commission.
Washington, DC 20555-0001

Re: Request for Comments on the Nuclear Regulatory Commission's Low Level Radioactive Waste Program

Dear Sir or Madam:

Attached are the Utility Solid Waste Activities Group ("USWAG")[1] comments on NRC's Request for Comments on the Nuclear Regulatory Commission's Low Level Radioactive Waste Program. 71 Fed. Reg. 38675 (July 7, 2006). The comments, among other things, urge NRC to work with EPA in implementing expanded disposal options for low level wastes including those that are also regulated as hazardous waste. We appreciate the opportunity to comment on NRC's low level waste program and commend the Commission for conducting the strategic assessment of its regulatory program.

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[1] USWAG was formed in 1978, and is an association of approximately 80 energy industry operating companies and associations, including the Edison Electric Institute ("EEI"), the National Rural Electric Cooperative Association ("NRECA"), and the American Public Power Association ("APPA"). EEI is the principal national association of investor-owned electric power and light companies. NRECA is the national association of rural electric cooperatives. APPA is the national association of publicly owned electric utilities. 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.

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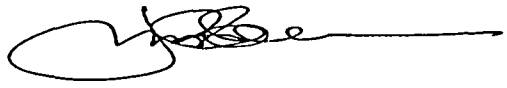
If you have questions or would like more information, please contact me (jim.roewer@uswag.org; 202-508-5645), or USWAG counsel, Douglas Green (douglas.green@dlapiper.com; 202-861-3847).

Very truly yours,



Jim Roewer

USWAG Executive Director

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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:

REQUEST FOR COMMENTS ON THE NUCLEAR REGULATORY COMMISSION'S LOW LEVEL RADIOACTIVE WASTE PROGRAM

71 Fed. Reg. 38675 (July 7, 2006)

Submitted to
The United States
Nuclear Regulatory Commission

September 5, 2006

Of Counsel:
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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:
REQUEST FOR COMMENTS ON THE NUCLEAR REGULATORY COMMISSION'S LOW LEVEL RADIOACTIVE WASTE PROGRAM
71 Fed. Reg. 38675 (July 7, 2006)

The following comments in response to the Nuclear Regulatory Commission's ("NRC") request for comments on its low level radioactive waste ("LLW") program, 71 Fed. Reg. 38675 (July 7, 2006), are submitted on behalf of the Utility Solid Waste Activities Group ("USWAG"). USWAG is an association of approximately 80 electric utility operating companies, as well as industry trade associations, including the Edison Electric Institute ("EEI"), the American Public Power Association ("APPA"), and the National Rural Electric Cooperative Association ("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 percent of the total electric generating capacity of the United States, and service more than 95 percent of the nation's consumers of electricity.

INTRODUCTION

Since its formation in 1978, USWAG has actively participated in many federal agency initiatives involving the development of rules and guidance affecting the management and disposal of utility waste streams to help ensure the development of cost-effective, practical, environmentally-protective and secure regulations for such wastes. One important initiative in this regard was USWAG's work with the Environmental Protection Agency's ("EPA") development of the conditional exemption from hazardous waste regulations for the storage, treatment, transportation and disposal of waste which is both low level radioactive waste and a RCRA hazardous

waste ("mixed waste"). 66 Fed. Reg. 27218 (May 16, 2001) (codified at 40 C.F.R. Part 266, Subpart N). EPA's "mixed waste" rule resulted in much-needed regulatory relief for regulated entities and regulators in eliminating redundant (and sometimes inconsistent) regulatory regimes for mixed waste. However, the failure of many states to incorporate this rule into their RCRA-authorized state programs has limited the application of this relief.

While the mixed waste rule was an important milestone in the cost-effective management of mixed waste, the rule still requires that such wastes be disposed of in NRC-LLW facilities that also are authorized to receive RCRA hazardous wastes. Currently, there is only one such facility located in the United States, the Utah site managed by EnergySolutions (formerly Envirocare).[1]

As an additional matter, there are only three sites (the Energy Solutions site, the Barnwell site in South Carolina, and the Hanford site in Washington) that can currently receive any NRC-regulated LLW for disposal. Hanford, however, only accepts LLW from the Northwest and Rocky Mountain Compacts and Barnwell will be closing to non-Atlantic Compact states in 2008. Furthermore, EnergySolutions is only licensed to receive Class A radioactive waste, which will leave most LLW generators with no disposal option for Class B and C wastes after July 2008 and *only* the EnergySolutions site available for disposal of Class A wastes for most of the country. While a new site in Texas is still in development, it is only expected to accept waste from the Texas Compact which is limited to the states of Texas, Maine and Vermont.

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[1] While the EnergySolutions facility can accept most forms of mixed waste, it is limited to certain types of Class A radioactive waste and cannot accept wastes containing other regulated sources of waste (*i.e.*, biological radioactive wastes).

In 2003, as a partial response to this impending shortage of qualified NRC-licensed facilities for LLW, EPA issued an advance notice of proposed rulemaking ("ANPR") to set forth approaches to expanding the disposal options for mixed waste and a subset of LLW. 68 Fed. Reg. 65120 (November 18, 2003). The core proposal of EPA's ANPR was an initiative to authorize the disposal of "low activity"[2] mixed wastes ("LAMW") and "low activity" radioactive wastes (a subset of LLW with low levels of radioactivity that is not mixed with hazardous waste) ("LARW") in disposal facilities permitted under RCRA to receive hazardous wastes ("RCRA-C facilities"). The impetus for the ANPR was the increasing lack of disposal options for both mixed waste and LLW and the recognition that expanding the available disposal options would reduce the economic and practical barriers to safe disposal options, while freeing up disposal capacity in LLW facilities for other categories of NRC-regulated radioactive waste. USWAG filed comments (attached) strongly supporting EPA's initiative and met with EPA to discuss ways that USWAG could support the rulemaking by providing technical data on the generation of mixed waste and LLW and the barriers to their effective disposal.

During our meetings, EPA staff suggested that a key factor for implementing the concept of RCRA-C facilities accepting LAMW and LARW was ability of NRC to either (i) provide a NRC general license to RCRA-C facilities managing NRC-regulated wastes and/or (ii) exempt qualified categories of LARW wastes disposed of at RCRA-C facilities from NRC disposal requirements through exemptions granted pursuant to 10 C.F.R. §

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[2] The term "low activity" refers to the level of radioactivity safe for disposal in RCRA-C facilities which would be defined in later rulemakings.

20.2002 or similar procedures. Accordingly, USWAG is submitting these comments to urge NRC to actively work with EPA to establish a regulatory framework envisioned in EPA's ANPR authorizing the disposal of LARW (including LAMW) in RCRA-C facilities, and to provide general comments on other issues related to NRC's LLW program. Our comments are summarized as follows:

- USWAG believes that there are cost concerns currently associated with the disposal of LLW and mixed waste.
- The current regulatory approach towards LLW disposal is often neither predictable nor adaptable with regard to the future availability of LLW disposal sites.
- It is difficult to predict future problems associated with LLW disposal given that no new disposal sites have been created by the compact system and that volumes of these wastes will increase due to the decommissioning of existing nuclear facilities.
- NRC's LLW regulatory system should facilitate the disposal of LLW in permanent disposal facilities rather than the on-site storage/disposal at commercial NRC-licensed nuclear facilities.
- NRC's LLW regulatory system should allow for the disposal of LARW and LAMW in RCRA-C facilities as contemplated in EPA's ANPR.

I. There are Problems with the Current Low Level Waste Disposal System

NRC requests comment on the key drivers and/or concerns relative to LLW disposal and the vulnerabilities and impediments in the current regulatory approach, including (i) its reliability, predictability and adaptability, (ii) the overall regulatory burden, and (iii) its impact on safety, security and protection of the environment. *See* 71 Fed. Reg. 38675, 38676 questions 1 & 2. Consideration of each of these factors suggests that there are problems associated with the disposal of LLW, which NRC should attempt to ameliorate.

NRC's first factors are the "key safety and cost drivers" regarding the disposal of LLW. The lack of competitive LLW disposal options drives the response to the

concerns associated with these factors. As explained above, given that LLW must be transported to one of only *two* commercial LLW disposal facilities that currently accept LLW from most of the country -- *i.e.*, the Barnwell, South Carolina site or the EnergySolutions site in Utah -- many generators have no option but to transport LLW over extremely long routes, which is extremely expensive and often represents a significant portion of the costs associated with LLW disposal.

Additionally, given that there are only two facilities in the commercial market capable of receiving most of the Class A LLW from around the country – with this number shrinking to one in 2008 -- there is understandably a concern about the lack of access for such disposal services. This issue may be especially pronounced given that EnergySolutions is slated to operate the Barnwell site in the near future following the approval of its acquisition of Duratek, the current operator of the site. The completion of this merger will effectively eliminate all competition between LLW disposal sites by enabling EnergySolutions to control the LLW disposal capacity for most of the U.S.

Given the already high costs for LLW disposal, USWAG understands that some NRC-licensed commercial nuclear facilities are storing some LLW on-site or seeking permits for on-site disposal. This situation will likely increase as disposal options decrease in 2008, and consolidate through the pending merger of EnergySolutions and Duratek which will allow EnergySolutions to operate both the Barnwell site in South Carolina and the site it now owns/operates in Utah. NRC has rightfully been concerned about long-term storage at generator facilities, because storage is not the final disposition of LLW. Lack of access to disposal capacity prohibits licensees from being responsible environmental stewards because temporary storage requires additional and unnecessary radiation exposure to on-site personnel. The timely disposal of LLW in

licensed disposal facilities poses fewer health and security risks and minimizes unnecessary exposure of workers to radiation. There are also substantial economic and regulatory burdens associated with generators of LLW attempting to obtain the requisite licenses for additional LLW storage/disposal capacity. Put simply, the existing and future lack of readily available and competitive commercial disposal options for LLW raises serious concerns with respect to the long term "cost drivers" associated with LLW management.

This problem is compounded by the failure of the compact system to develop additional LLW disposal sites (besides the privately owned and operated EnergySolutions site), which in turn has compromised the predictability and adaptability of the LLW disposal framework. Given that generators of LLW are uncertain about the future availability and costs of commercial LLW disposal sites, there is a great deal of consternation about the predictability of LLW disposal options and the adaptability of the system for future disposal scenarios. This is especially pronounced when generators are faced with budgeting for and/or proceeding with future commercial nuclear facility decommissioning operations. As the NRC is well aware, large volumes of LLW will be generated by these operations and many NRC licensees are understandably concerned, given the current lack LLW disposal alternatives, with whether and how these wastes can be sensibly and cost-effectively managed.

The safety, cost and regulatory concerns regarding the disposal of mixed waste are even more pronounced than those for LLW. Currently, only the EnergySolutions facility can accept mixed waste for disposal and the costs for such disposal often exceed the costs for LLW and hazardous waste disposal combined. In fact, one USWAG member received a quote of $150,000 to dispose of 12 55-gallon drums of

hazardous waste slightly contaminated with very low levels of radioactivity. Additionally, the regulatory hurdles associated with the management of such wastes are burdensome because the waste is regulated both by NRC and EPA (*i.e.*, land disposal restrictions), notwithstanding EPA's mixed waste rule discussed above.

II. The Future for the Disposal of LLW Remains Unsettled

NRC's next two questions request commenters to provide the likely future outlook on the types and volumes of LLW streams, the availability of disposal options, and the impact of future disposal scenarios on LLW storage and disposal (including (i) the reliability, predictability and adaptability of the regulatory system, (ii) the overall regulatory burden, and (iii) the impact on safety, security and protection of the environment by future disposal scenarios). *See* 71 Fed. Reg. at 38676 questions 3 & 4. Given the unpredictability concerning the development of alternative LLW disposal sites, it is difficult to state with any certainty exactly what will occur in the near future, however, the preliminary indicators are not favorable or timely.

As described above, the number of facilities licensed to accept LLW will decline when the Barnwell site closes to out of compact waste in 2008. Coupled with the decline in available disposal facilities, is the increase in the generation of LLW and mixed waste associated with anticipated power plant decommissioning operations. This creates an ominous future where commercial disposal options are decreasing at a time of increasing LLW and LAMW generation. Given these compounded circumstances, the predictability and efficiency of the existing disposal framework will suffer as the hurdles for obtaining disposal at existing commercial sites become more insurmountable. Clearly, relying on *one,* or even two disposal sites for much of the country's LLW and mixed waste disposal capacity decreases the reliability and

predictability of the disposal system as generators across the country will be held hostage to that site's peculiarities, including the changing legislative policies of the state in which the facility is sited.

The lack of a competitive market between alternative disposal sites for LLW and mixed waste also raises a host of concerns about the predictability and reliability of disposal costs. After either the pending merger is completed or the Barnwell site closes to much of the nation and only the EnergySolutions site is available for disposal of much of the country's LLW and mixed waste, it is unclear what regulatory authority, if any, will exercise control over this facility to ensure that monopolistic behavior is restrained. Certainly, an analogy can be drawn to the lack of disposal options for mixed waste where generators incur disposal expenses far beyond what the combined disposal costs (including transportation and treatment) for the individual components of the waste would have been– *i.e.*, the costs of disposing of the hazardous waste component of the waste in a RCRA-C facility and the LLW component of the waste in an NRC-licensed commercial disposal facility.

Further, as noted above, because there will soon be a lack of any disposal options for Classes B and C waste, there is a tremendous lack of predictability and reliability concerning the disposal costs of these categories of wastes. There is a concern that facilities which are not able to store these wastes in the nuclear power plant's "footprint" due to size and space restrictions will be forced to develop alternative storage and disposal options. Such processes will likely be burdensome given the public's (often unfounded) concerns about the management of any category of LLW and will often require significant and uncertain expenses to ameliorate these concerns.

Finally, the lack of competitively priced LLW disposal options and the unreliable and unpredictable nature of the LLW disposal framework could further complicate the ability of some entities to pursue the licensing of new commercial nuclear reactors. In short, the lack of certainty and clarity associated with the availability of cost-effective disposal capacity for future LLW generated by newly contemplated nuclear commercial facilities could unduly complicate the ability and willingness of entities to invest the requisite resources for these projects.

III. USWAG Urges NRC to Work with EPA to Authorize the Disposal of LLW and Mixed Waste at RCRA-C Facilities

NRC's next series of questions asks for recommendation for actions that should be taken to improve the outlook on the management and disposal of LLW. *See* 71 Fed. Reg. at 38676 questions 5 & 6. As mentioned above, USWAG believes that a critical first step in addressing some of the programmatic long-term concerns with NRC's LLW regulatory program for LLW and mixed waste is for NRC to work collaboratively with EPA in pursuing the concept of RCRA-C disposal facilities accepting LARW and LAMW for disposal.

Due to their specific engineering features, USWAG believes that RCRA-C facilities clearly can offer the same level of protectiveness as LLW disposal facilities for LLW with fairly low levels of activity (*i.e.*, Class A wastes). RCRA-C facilities also are better equipped to handle LAMW, since such facilities are specifically designed to safely manage the hazardous component of such wastes. *See* USWAG comments on EPA's ANPR at 5.

While the implementation of EPA's ANPR would not solve every problem relating to the management of LLW and mixed waste--primarily because the rule would only include Class A or a subset of Class A radioactive wastes--it would help to provide more

management options for these wastes, lowering costs and increasing the projected disposal capacity at existing LLW disposal sites. This would, in turn, increase the potential that other forms of radioactive waste would be able to be permanently disposed of at LLW sites, regardless of the actual number of facilities that would be licensed to take such waste. Increasing the number of sites throughout the country that are able to accept LLW for disposal would shorten transportation routes which, in turn, would reduce both costs and potential environmental and security risks. Opening these sites to LLW would also provide a degree of stability to the other components of the LLW disposal system because much of the predicted increase in LLW generation (*i.e.*, decommissioning wastes) would in all likelihood be able to be disposed of in RCRA facilities.

Therefore, USWAG urges NRC to work jointly with EPA to provide general licenses to RCRA-C facilities to accept NRC-regulated waste for disposal or to exempt qualified LLW managed in such facilities from NRC disposal requirements through the 10 C.F.R. § 20.2002 variance procedure or similar options. USWAG believes that NRC should refrain from issuing individual licenses to particular RCRA-C facilities because this process could require significant regulatory decision-making on a case-by-case basis, which could deter otherwise qualified RCRA facilities from accepting LLW as they would remain subject to the burdensome nature of dual regulatory schemes.

While the benefit of the implementation of EPA's ANPR will depend on how the Agency delineates the radioactive exposure threshold for disposal in RCRA-C facilities (*i.e.*, the scope of "low activity" wastes) and whether states will authorize these hazardous waste disposal facilities to accept such wastes, this rulemaking initiative is a good first step for EPA and NRC to take in addressing the ongoing problems associated

with the sensible management and disposal of mixed waste and LLW. USWAG urges NRC to work with EPA to provide general licenses to RCRA-C facilities and/or work with EPA in providing a qualified NRC exemption allowing such wastes to be managed in RCRA-C facilities.

USWAG also encourages NRC to continue its work on developing a licensing process whereby Department of Energy sites are able to accept mixed waste and LLW for disposal. This initiative will likely be the only route to develop disposal options for Classes B and C wastes. NRC should also conclude its long-standing rulemaking to delineate clearance standards for radioactive waste, which will allow radioactive waste with negligible risks to be managed in accordance with their risk. This standard would be particularly appropriate for large quantities of decommissioning debris and other solid materials that have trace levels of contamination, which would otherwise deplete scare capacity at a licensed LLW facilities.

CONCLUSION

USWAG appreciates the opportunity to submit comments on NRC's important examination of its low level waste program. USWAG believes that NRC can take a positive step forward to resolve many of the issues identified above by continuing to work cooperatively with EPA in establishing an NRC low level waste regulatory framework authorizing the disposal of LARW and LAMW in RCRA-C disposal facilities. USWAG looks forward to working with NRC and EPA as they jointly move forward to implement this initiative.