LLW notes

Volume 30 Number 4 July/August 2015

***U.S. Nuclear Regulatory Commission***

# NRC Seeks Input re Byproduct Material Financial Scoping Study

***Comments Due by October 19, 2015***

In a *Federal* Register notice published on August 3, 2015, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency plans to conduct a financial scoping study to determine if financial planning requirements for decommissioning and end-of-life management for some radioactive byproduct material are necessary. (See 80 *Federal Register* 46,057 dated August 2, 2015.)

The NRC is seeking stakeholder input and perspective on this issue. Commenters are asked to consider recommendations from recent studies addressing this topic, national and international activities, and specific questions posed by the NRC staff in the *Federal Register* notice when preparing their responses.

The deadline for submitting comments is October 19, 2015. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date.

The development and implementation of financial planning requirements for disused sources was a key recommendation contained in the March 2014 report from the Disused Sources Working Group (DSWG) of the Low-Level Radioactive Waste Forum (LLW Forum).

A presentation on the NRC's byproduct material financial scoping study, as well as an extended brokers and processors panel on disused source management and disposition, will both be included on the agenda for the fall 2015 LLW Forum meeting—which will be held in Chicago, Illinois on October 22-23, 2015. (See related story, this issue.)

*The March 2014 DSWG report, as well as other resource documents and information, can be found on the DSWG web site at www.disusedsources.org.*

*Information about the fall 2015 LLW Forum meeting—including the meeting bulletin, registration form and agenda—can be found at the bottom of the Home Page of the LLW Forum's web site at www.llwforum.org.*

*(Continued on page 29)*

In This Issue

## COPYRIGHT POLICY

The Low-Level Radioactive Waste Forum, Inc. is dedicated to the goals of educating policy makers and the public about the management and disposal of low-level radioactive wastes, and fostering information sharing and the exchange of views between state and compact policy makers and other interested parties.

As part of that mission, the LLW Forum publishes a newsletter, news flashes, and other publications on topics of interest and pertinent developments and activities in the states and compacts, federal agencies, the courts and waste management companies. These publications are available to members and to those who pay a subscription fee.

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# Low-Level Radioactive Waste Forum, Inc.

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Directors that serve on the Board of the Low-Level Radioactive Waste Forum, Inc. are appointed by governors and compact commissions. The LLW Forum, Inc. was established to facilitate state and compact implementation of the Low-Level Radioactive Waste Policy Amendments Act of 1985 and to promote the objectives of low-level radioactive waste regional compacts. The LLW Forum, Inc. provides an opportunity for state and compact officials to share information with each another and to exchange views with officials of federal agencies and other interested parties.

## Table of Contents




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**Key to Abbreviations**

| | |
|---|---|
| U.S. Department of Energy | DOE |
| U.S. Department of Transportation | DOT |
| U.S. Environmental Protection Agency | EPA |
| U.S. Government Accountability Office | GAO |
| U.S. Nuclear Regulatory Commission | NRC |
| Naturally-occurring and accelerator-produced radioactive material | NARM |
| Naturally-occurring radioactive material | NORM |
| Code of Federal Regulations | CFR |

***Low-Level Radioactive Waste Forum, Inc. (LLW Forum)***

# LLW Forum Releases Draft Agenda for the Fall 2015 Meeting

***Embassy Suites Hotel in Downtown Chicago, Illinois***
***October 22-23, 2015***

The Low-Level Radioactive Waste Forum (LLW Forum) is pleased to announce the availability of the draft agenda for our fall 2015 meeting, which will be held at the Embassy Suites Downtown Chicago Hotel on October 22-23, 2015.

Stakeholders that are planning to attend the meeting are strongly encouraged to register and make hotel reservations for the meeting at your earliest convenience, as there is limited space available. In addition, please note that our discount room block closes on September 18, 2015. Reservations made after this date will not be guaranteed the discount rate.

The meeting is being co-sponsored by the Compact Midwest Interstate Low-Level Radioactive Waste Compact Commission, the Illinois Emergency Management Agency (IEMA), and the LLW Forum.

*All of the meeting documents—including the meeting bulletin, registration form and draft agenda—have been posted to the LLW Forum's web site at www.llwforum.org.*

**Draft Agenda**

The following is an overview of some of the topics included on the draft agenda for the fall 2015 LLW Forum meeting:

- licensing and activities updates for the Energy*Solutions'* Clive facility in Tooele County, Utah and the Waste Control Specialists LLC (WCS) facility in Andrews County, Utah;
- white paper by the Conference of Radiation Control Program Directors' (CRCPD) E-42 Committee on radiological, environmental, regulatory and health and safety aspects of Technologically Enhanced Naturally Occurring Radioactive Material (TENORM);
- development of suggested state TENORM regulations by CRCDP's Part N Task Force;
- update from U.S. Nuclear Regulatory Commission (NRC) about low-level radioactive waste emerging issues;
- NRC's new proposed Part 61 rule and associated technical assistance guidance document;
- sited states' and industry stakeholder panels to provide comments and input on NRC's new proposed Part 61 rule;
- overview of activities and initiatives at the U.S. Department of Energy;
- management and disposition of Greater-than-Class C (GTCC) and Transuranic waste;
- implementation of the revised Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP);
- financial planning requirements and end-of-life management of certain radioactive byproduct material; and,
- scoping session on brokers and processors perspectives regarding the management and disposition of disused sources.

Persons interested in more detail are directed to the draft agenda itself.

**Attendance**

Officials from states, compacts, federal agencies, nuclear utilities, disposal operators, brokers/

processors, industry, and other interested parties are invited and encouraged to attend.

The meeting is an excellent opportunity to stay up-to-date on the most recent and significant developments in the area of low-level radioactive waste management and disposal. It also offers an important opportunity to network with other government and industry officials and to participate in decision-making on future actions and endeavors affecting low-level radioactive waste management and disposal.

**Location and Dates**

The fall 2015 LLW Forum meeting will be held on Thursday, October 22 (approx. 9:00 am – 5:30 pm) and Friday, October 23 (approx. 9:00 am – 1:00 pm) at:

Embassy Suites
Downtown/Lakefront
511 North Columbus Drive
Chicago, Illinois 60611

Located in the heart of downtown Chicago, the Embassy Suites Hotel is one block to the Magnificent Mile, two blocks to the Chicago River and three blocks to Navy Pier.

**Registration**

All persons must pre-register for the meeting and pay any associated registration fees in order to be allowed entry. Registration forms are needed in order to ensure that you receive a meeting packet and name badge. Accordingly, interested attendees are asked to please take a moment to complete the registration form at your earliest convenience and return it Todd Lovinger of the LLW Forum at the address, e-mail or fax number listed at the bottom of the form.

The meeting is free for up to two individuals representing members of the LLW Forum. Additional and non-member registration is $500, payable by check only to the "LLW Forum, Inc." (Credit card payments are not accepted.)

**Reservations**

Persons who plan to attend the meeting are strongly encouraged to make their hotel reservations and send in their registration forms as soon as possible, as we have exceeded our block at the last few meetings.

A limited block of hotel rooms has been reserved for meeting attendees for Wednesday (October 21) and Thursday (October 22) at the prevailing federal per diem rate (which is currently $194/night) plus tax/single or double. (The rate for a triple is $214/night plus tax and for a quadruple is $234/night plus tax.) A limited number of rooms are available at this rate for three days prior to and following the meeting, subject to availability.

*To make a reservation, please call 1-800-HILTONS and ask for a room in the "LLW Forum block" at the Embassy Suites Downtown–Lakefront Hotel or use the following dedicated link: http://embassysuites.hilton.com/en/es/groups/personalized/C/CHIREES-LLW-20151020/index.jhtml?WT.mc_id=POG.*

*In order to receive the discounted rate, please make your reservation by September 18, 2015.*

**Transportation and Directions**

Super Shuttle offers transportation from both Chicago O'Hare International Airport and Chicago Midway Airport for a minimum charge of $29. A taxi from the airport to the hotel is a minimum estimated charge of $50/each way. Driving directions from both airports can be found at http://chicagoembassy.com/. Please note that self-parking at the hotel is $43/day and valet parking is $63/day.

*For additional information, please contact Todd D. Lovinger, the LLW Forum's Executive Director, at (754) 779-7551 or go to* www.llwforum.org.

***LLW Forum / Part 61 Working Group***

# Part 61 Working Group Submits Formal Comments to NRC

The following is a brief update on activities of the Low-Level Radioactive Waste Forum's (LLW Forum's) Part 61 Working Group (P61WG) — which is comprised of representatives from the four sited-states of South Carolina, Texas, Utah and Washington, as well as a representative from the Commonwealth of Pennsylvania.

*For additional information and ongoing updates, interested stakeholders are encouraged to go to the P61WG web site at www.part-61.org.*

**P61WG Submits Comments re Part 61 Rulemaking Initiative**

On July 22, 2015, the P61WG submitted formal comments to the U.S. Nuclear Regulatory Commission (NRC) on the proposed rule to amend 10 CFR Part 61, *Licensing Requirements for Land Disposal of Radioactive Waste*, as published for public comment at 80 *Federal Register* 16,081 on March 26, 2015.

The P61WG agrees with statements made by the NRC that the current 10 CFR Part 61 regulations ensure public health and safety at all the commercial low-level radioactive waste facilities and also supports statements to that affect as contained in the NRC's *Federal Register* notice. In addition, the P61WG agrees with the following changes to 10 CFR Part 61 as proposed by NRC:

- revisions to the existing technical analysis for protection of the general population to include a 1,000 year compliance period and explicitly requiring a site specific analysis using modern dose methods;
- adding a new site-specific technical analysis for the protection of inadvertent intruders that would include a 500 mSv/yr dose limit;
- providing licensees and regulators flexibility by allowing waste acceptance criteria (WAC) to be developed using site-specific analyses for low-level radioactive waste disposal of unique waste streams (based on the results of these technical analyses) or to continue using the existing low-level radioactive waste classification requirements;
- use of the total effective dose equivalent (TEDE) in § 61.41 and the dose limit of 25 mSv/yr;
- allowing licensees the flexibility to use International Commission on Radiation Protection (ICRP) dose methodologies in a site-specific performance assessment; and,
- the new requirement to redo performance assessments within five years of closure, provided no new additional sampling should be done (unless absolutely needed) and provided only updating the inventory and equation values such as kd and potential exposure scenarios appropriate to the specific location.

The P61WG provided detailed comments and asked questions concerning specific topics addressed in NRC's proposed rule including:

- intruder analysis;
- institutional control period;
- performance assessment;
- defense-in-depth; and,
- site stability.

The P61WG also offered detailed comments regarding applicability of the proposed new requirements and policy considerations related to the Part 61 rulemaking initiative. And, the P61WG provided detailed comments regarding compatibility categories and administrative issues. Finally, the P61WG encouraged NRC to consider performing a regulatory analysis and back-fit analysis.

In addition, the P61WG provided a detailed analysis in support of keeping the 10 CFR Part 61 regulations as written for traditional low-level radioactive waste streams, as well as retaining the current language in § 61.58 and its intended flexibility for NRC and Agreement States. In regard to waste streams that were not previously anticipated, the P61WG recommends that NRC develop a new stand-alone § 61.60 or a new Subpart H as more fully explained in the formal comments.

*The full text of the P61WG formal comments as submitted to NRC can be found at http://part-61.org/wp-content/uploads/2015/07/P61WG-Comments-re-New-Proposed-Part-61-Rule-Language-FINAL-7.22.15.pdf.*

**Other Stakeholder Comments re Part 61 Rulemaking Initiative**

Approximately 80 comments were submitted to NRC on the Part 61 rulemaking initiative, of which approximately 30 were submitted on behalf of stakeholder entities including:

*Comments from States, State Organizations and Compacts*

- Conference of Radiation Control Program Directors (CRCPD)
- Illinois Emergency Management Agency (IEMA)
- Northwest Interstate Compact on Low-Level Radioactive Waste Management
- Organization of Agreement States (OAS)
- South Carolina Department of Health and Environmental Control (DHEC)
- Texas Commission on Environmental Quality (TCEQ)
- Utah Division of Waste Management and Radiation Control (DWMRC)
- Washington Department of Health

*Comments from Federal Agencies*

- U.S. Department of Energy (DOE)

*Comments from Facility Operators*

- Energy*Solutions*
- Louisiana Energy Services
- URENCO USA
- Waste Control Specialists

*Comments from Industry Organizations and Consultants*

- Electric Power Research Institute (EPRI)
- Talisman
- Neptune and Company
- Nuclear Energy Institute (NEI)
- Savannah River Remediation LLC

*Comments from Tribes, Citizen Organizations and Other Stakeholders*

- American Nuclear Society (ANS)—University of Utah
- ANS Student Chapter—Utah State University
- ANS Student Chapter—Brigham Young University
- Consortium for Risk Evaluation with Stakeholder Participation
- Environmental Defense Institute
- Healthy Environmental Alliance of Utah (HEAL Utah)
- Nez Perce Tribe, Environmental Restoration and Waste Management Division
- Nuclear Information Resource Service (NIRS) and Other Organizations
- NIRS Southeast
- West Valley Citizens Task Force

*Links to all of the above stakeholder comments, as well as a full list of ML numbers for all stakeholder comments along with directions for accessing them on the NRC web site, can be found at http://part-61.org/resources/.*

**Extension of Comment Period and Fall 2015 LLW Forum Meeting Panel**

On August 27, 2015, NRC published a *Federal Register* notice announcing the reopening of the comment period for the proposed rule that would amend 10 CFR Parts 20 and 61 and associated draft technical guidance document "to allow more time for members of the public to develop and submit their comments." The comment period now expires on September 21, 2015. (See related story, this issue.)

A panel of state and industry representatives has been scheduled for the fall 2015 LLW Forum meeting to discuss stakeholder feedback on the Part 61 rulemaking initiative. The meeting will be held at the Embassy Suites Hotel in downtown Chicago, Illinois on October 22-23, 2015. (See related story, this issue.) Additional information about the meeting—including the meeting bulletin (with information for making hotel reservations), registration form, and draft agenda—can be found on the bottom of the Home Page at www.llwforum.org.

*For additional information about the P61WG, please contact Project Director Todd D. Lovinger, Esq at (754) 779-7551 or at LLWForumInc@aol.com.*

***LLW Forum / Disused Sources Working Group***

# Disused Sources Working Group Updates

The following is a brief update on activities of the Low-Level Radioactive Waste Forum's (LLW Forum's) Disused Sources Working Group (DSWG).

*For additional information and ongoing updates, interested stakeholders are encouraged to go to the DSWG web site at www.disusedsources.org.*

**Southwestern Compact Workshop**

The DSWG Project Director attended and participated in one of two workshops on disused source management and disposition that was sponsored by the Southwestern Low-Level Radioactive Waste Compact Commission in Northern California on July 28, 2015 and in Southern California on July 30, 2015. (See related story, this issue.)

Dave Martin, Project Consultant for the U.S. Department of Energy/National Nuclear Security Administration (DOE/NNSA), led the workshops to educate interested stakeholders about current federal and state initiatives in sealed source management and disposal.

The workshops addressed a broad range of issues including:

- federal and state programs;
- reuse, recycle and exchange programs and policies;
- strategies to encourage disposal;
- the National Source Tracking System (NSTS);
- financial surety requirements;
- Category 1 through 3 sources;
- shipping container availability and options;
- storage time limits; and,
- alternative technologies.

*For additional information about the workshops, please contact Southwestern Compact Commission Executive Director Kathy Davis at (916) 448-2390 or at swllrwcc@swllrwcc.org.*

**Organization of Agreement States Annual Meeting**

The DSWG Chair gave a presentation at the Organization of Agreement States (OAS) annual meeting that was held in Boston, Massachusetts

from August 23-27, 2015. The presentation focused on the results of a survey of state program directors and the path forward for implementation of the 24 recommendations contained in the March 2014 DSWG report.

This survey was distributed in cooperation with the Conference of Radiation Control Program Director's (CRCPD) E-34 Committee on Unwanted Radioactive Materials. Forty two state program directors representing 38 states responded to the survey. A report providing an overview and summary of survey responses can be found on the Resources Page of the DSWG web site.

*For additional information about the DSWG, please contact Project Director Todd D. Lovinger, Esq at (754) 779-7551 or at LLWForumInc@aol.com.*

*(Continued from page 26)*

condition review, and the adequacy of corrective actions as well as the quality of engineering assessments associated with the replacement of various plant components. An inspection report documenting the team's findings will be publicly available within 45 days of the end of the inspection.

***Central Midwest Compact***

# Central Midwest Compact Commission to Hold Annual Meeting

On September 23, 2015, the Central Midwest Interstate Low-Level Radioactive Waste Compact Commission will hold its annual meeting beginning at 10:00 a.m. CST. The meeting will be held at the Illinois Emergency Management Agency (IEMA) offices located at 2200 S. Dirksen Parkway in Springfield, Illinois.

The following items are on the tentative meeting agenda:

- Call to Order
- Adoption or Modification of the Agenda
- Election of Officers
- Adoption of Minutes from the Spring 2015 Meeting
- Executive Session
- First Public Comment Period
- Reports
  - Chairman & Host State Report
  - Executive Assistant Report
- Acceptance of Auditor's Report
- Adoption of Fiscal Year Budget
- Acceptance of Annual Report
- Maxey Flat update
- Other Business
  - Unfinished Business (progress of Kentucky reporting procedures)
  - New Business (compact opinion on source manufacturing and disposal of sources)
- Second Public Comment Period
- Next Scheduled Meeting or Announcement of Special Meeting
- Adjournment

Video conferencing will not be available. However, a conference phone line will be made available upon request.

*For additional information, please contact Joseph Klinger, Chairman of the Central Midwest Interstate Low-Level Radioactive Waste Compact Commission, at (217) 836-3018 or go to http://www.cmcompact.org.*

***Southeast Compact***

# **2016** Hodes Award Nominations Deadline Extended

The Southeast Compact Commission for Low-Level Radioactive Waste Management is accepting nominations for the 2015 Richard S. Hodes, M.D. Honor Lecture Award—a program that recognizes an individual, company, or organization that contributed in a significant way to improving the technology, policy, or practices of low-level radioactive waste management in the United States. The award recipient will present the innovation being recognized at a lecture during the Waste Management '16 Symposium in Phoenix, Arizona. The award recipient will receive a $5,000 honorarium and all travel expenses will be paid.

*Nominations must be received by August 31, 2015.*

**Background**

Dr. Richard S. Hodes was a distinguished statesman and a lifetime scholar. He was one of the negotiators of the Southeast Compact law, in itself an innovative approach to public policy in waste management. He then served as the chair of the Southeast Compact Commission for Low-Level Radioactive Waste Management from its inception in 1983 until his death in 2002.

Throughout his career, Dr. Hodes developed and supported innovation in medicine, law, public policy, and technology. The Richard S. Hodes, M.D. Honor Lecture Award was established in 2003 to honor the memory of Dr. Hodes and his achievements in the field of low-level radioactive waste management.

**Past Recipients**

The following individuals and entities are past recipients of the Richard S. Hodes, M.D. Honor Lecture Award:

- W.H. "Bud" Arrowsmith (2004);
- Texas A & M University Student Chapter of Advocates for Responsible Disposal in Texas (2004 *honorable mention*);
- William Dornsife (2005);
- California Radioactive Materials Management Forum (2006);
- Larry McNamara (2007);
- Michael Ryan (2008);
- Susan Jablonski (2009);
- Larry Camper (2010);
- Christine Gelles (2011);
- Lawrence "Rick" Jacobi (2012);
- James Kennedy (2013);
- Energy*Solutions*, the Utah Department of Environmental Quality (DEQ), the Conference of Radiation Control Program Directors (CRCPD), and the U.S. Department of Energy's (DOE) Global Threat Reduction Initiative (2013 *honorable mention*);
- Electric Power Research Institute (2014); and,
- Division of Radiation Control of the Utah DEQ and Energy*Solutions* (2015).

**The Award**

The Richard S. Hodes Honor Lecture Award—established in March, 2003—is awarded to an individual, company, or organization that contributed in a significant way to improving the technology, policy, or practices of low-level radioactive waste management in the United States.

The award recipient will be recognized with a special plaque and an invitation to present a lecture about the innovation during the annual international Waste Management Symposium (WM '16). The 2016 symposium is sponsored by the University of Arizona and will be held in Phoenix, Arizona in the spring of 2016.

A special time is reserved during the Symposium for the lecture and the award presentation. The Southeast Compact Commission will provide the award recipient a $5,000 honorarium and will pay travel expenses and per diem (in accordance with Commission Travel Policies) for an individual to present the lecture.

**Criteria**

The Richard S. Hodes Honor Lecture Award recognizes innovation industry-wide. The award is not limited to any specific endeavor—contributions may be from any type of work with radioactive materials (nuclear energy, biomedical, research, etc.), or in any facet of that work, such as planning, production, maintenance, administration, or research. The types of innovations to be considered include, but are not limited to:

- conception and development of new approaches or practices in the prevention, management, and regulation of radioactive waste;
- new technologies or practices in the art and science of waste management; and,
- new educational approaches in the field of waste management.

The criteria for selection include:

1. *Innovation*. Is the improvement unique? Is it a fresh approach to a standard problem? Is it a visionary approach to an anticipated problem?
2. *Safety*. Does the practice enhance radiation protection?
3. *Economic*s. Does the approach produce significant cost savings to government, industry or the public?
4. *Transferability*. Is this new practice applicable in other settings and can it be replicated? Does it increase the body of technical knowledge across the industry?

**Eligibility**

To be eligible for the award, the individual/group must consent to being nominated and must be willing to prepare and present a lecture about the innovation being recognized at the Waste Management Symposium. Individuals or organizations can nominate themselves or another individual, company, institution, or organization.

**Nominations**

To nominate yourself or another individual, company, or organization for this distinguished award, please contact:

Awards Committee
c/o Ted Buckner, Executive Director
Southeast Compact Commission
1230 SE Maynard Road
Suite 103
Cary, NC 27511
(919) 380-7780
(919) 380-7710 - FAX
tedb@secompact.org

or visit the Southeast Compact Commission's website at http://www.secompact.org/.

*Nominations must be received by August 31, 2015.*

***Southwestern Compact***

# Southwestern Compact Commission Hosts Sealed Source Workshops

The Southwestern Low-Level Radioactive Waste Compact Commission held two workshops on disused source management and disposition in Northern California on July 28, 2015 and in Southern California on July 30, 2015.

*Additional information regarding disused source management and disposition—including a report on results of a recent survey of state radiation control program directors—can be found on the Resources Page of the DSWG web site at http://www.disusedsources.org/resources/.*

**Workshops' Overview**

Dave Martin, Project Consultant for the U.S. Department of Energy/National Nuclear Security Administration (DOE/NNSA), led the workshops to educate interested stakeholders about current federal and state initiatives in sealed source management and disposal.

The workshops addressed a broad range of issues including:

- federal and state programs;
- reuse, recycle and exchange programs and policies;
- strategies to encourage disposal;
- the National Source Tracking System (NSTS);
- financial surety requirements;
- Category 1 through 3 sources;
- shipping container availability and options;
- storage time limits; and,
- alternative technologies.

**Workshops' Agenda**

The following is an agenda for the workshops:

I. Introductions and Presentations

   a. Introductions (All Attendees)
   b. Background – NNSA/Radiological Security: Risk, Mission, and Lifecycle Approach
   c. NNSA/RSP Update – Federal/State Sealed Source Management and Disposal Activities
   d. Discussion/Questions

*Break /Networking*

II. Discussion – Strategies to Encourage Timely Source Disposal

   a. Incentive Programs
   b. Transportation Challenges
   c. Financial Assurance
   d. Storage Time Limits
   e. Discussion/Questions

*Break /Networking*

III. Discussion – Security of Sources in Use

   1. Source Reuse and Recycle
   2. Part 37/ National Source Tracking System (NSTS) Review
   3. Liability – IAEA Initiative
   4. Discussion/Questions

IV. Summary of Key Takeaways/Future Follow-Up

*For additional information about the workshops, please contact Southwestern Compact Commission Executive Director Kathy Davis at (916) 448-2390 or at swllrwcc@swllrwcc.org.*

*For additional information about the DSWG, please contact the working group's Project Director—Todd D. Lovinger, Esq.—at (754) 779-7551 or at LLWForumInc@aol.com. You may also go to the DSWG web site at www.disusedsources.org.*

***Texas Compact/State of Texas***

# Texas Compact Commission Holds July 2015 Meeting

The Texas Low-Level Radioactive Waste Disposal Compact Commission (Texas Compact Commission) held a regularly scheduled meeting on July 30, 2015.

The meeting, which began at 9:30 a.m. CDT, was held in Room E1.028 at the Texas Capital Building located at 1100 Congress Avenue in Austin, Texas.

**Meeting Agenda**

The following is an abbreviated overview of the agenda for the Texas Compact Commission meeting. Persons interested in additional detail are directed to the formal agenda themselves.

- call to order;
- roll call and determination of quorum;
- introduction of commissioners, elected officials and press;
- public comment;
- consideration of and possible action on the adoption of a new 31 Texas Administrative Code (TAC) §675.20 and the proposed revisions of 31 TAC §675.21, §675.22, and §675.23 related to the exportation and importation of low-level radioactive waste;
- consideration of and possible action on requests for amendments to agreements for importation of low-level radioactive waste from Arizona Public Service-Palo Verde Nuclear Generating Station; PerkinElmer, Inc.; PG&E-Diablo Canyon Power Plant; Radiac Environmental Services; Southern Nuclear Operating Company; and, Xcel Energy-Prairie Island Nuclear Plant;
- consideration of and possible action on applications and proposed agreements for importation of low-level radioactive waste from American Electric Power-D.C. Cook Nuclear Plant; Bionomics, Inc.; Duke Energy-Brunswick Nuclear Plant; Exelon Generation Company; PerkinElmer, Inc.; Philotechnics, Ltd.; Thomas Gray & Associates-EMC; Thermo Process Instruments, L.P.; and, Tennessee Valley Authority;
- consideration of and possible action on petitions and proposed orders for exportation of low-level radioactive waste from Luminant Generation Company, L.L.C.; NSSI; STP Nuclear Operating Company; and, Vermont Yankee;
- receive reports from Waste Control Specialists LLC (WCS) about recent site operations and any other matter WCS wishes to bring to the attention of the Texas Compact Commission;
- consideration of and possible action to adopt the Texas Compact Commission's annual budget for FY 2016 pursuant to Article IV, Section Two of the Commission's bylaws;
- the employment, evaluation, and duties of contract employees including the Executive Director, Executive Assistant, and Financial Consultant;
- discussion and possible action to renew or extend the contract with Leigh Ing as Consulting Executive Director and Audrey Ferrell as Executive Assistant;
- discussion and possible action to renew or extend the contract with Eric Woomer, Financial Consultant;
- discussion and possible action to renew or extend the contract with digITech Web Design

for web development, maintenance and hosting services;

- Chairman's report on Texas Compact Commission activities including reporting on fiscal matters to be taken by Compact;

- discussion and possible changes of dates and locations of future Texas Compact Commission meetings in 2015 and 2016; and,

- adjourn.

The Texas Compact Commission may meet in closed session as authorized by the Texas Open Meetings Act, Chapter 551, Texas Government Code. Texas Compact Commission meetings are open to the public.

**Background**

The Texas Compact Commission is proposing a new rule at 31 TAC §675.20 and amendments to 31 TAC §675.21 – §675.23 regarding the exportation and importation of low-level radioactive waste.

**Overview of Proposed New Rules** 31 TAC §675.21 establishes principles for the exportation of waste to a non-party state for disposal. In particular, the rule states that "[n]o person shall export any low-level radioactive waste generated within a party state for disposal in a nonparty state unless the [Texas Compact] Commission has issued an export permit allowing the exportation of that waste …" The rule goes on to detail petition requirements and form, as well as associated fees. It also details notice and timing of a petition and review and decision thereon. Among other things, the rule addresses decision by the Texas Compact Commission; imposition of terms and conditions; duration, amendment, revocation, reporting and assignment; agreements to export; and, so forth.

31 TAC §675.22 sets out principles related to the exportation of waste to a non-party state for management or processing and return to the party states for management or disposal in the Texas Compact facility. According to the rule, "[w]here the sole purpose of the exportation is to manage or process the waste for recycling or waste reduction and return it to the party states for disposal in the [Texas] Compact Facility, party state generators are not required to obtain an export permit; however … [t]he generator shall be required to file a report with the [Texas Compact] Commission no later than 10 days after the shipment of the waste." Among other things, the rule establishes the process for satisfying the reporting requirements, information that must be included, and filing and certification requirements upon return of the waste to the generator.

31 TAC §675.23 outlines principles related to the exportation and importation of waste including, but not limited to, Vermont's disposal capacity reserve; establishment of the Texas Compact facility's disposal capacity; new party members; import applications, agreements, forms, fees and so forth; the filing of a Quarterly Import Report with the Texas Compact Commission by the Texas Compact facility operator; procedures for small generators; and, so forth. The rule specifically states that the Texas Compact Commission "will not accept the importation of low-level radioactive waste of international origin."

**Review by the Texas Compact Commission** At its June 6, 2013 meeting, the Texas Compact Commission Chair established the Rules Committee to review the Texas Compact Commission's existing rules under 31 TAC §675.21, §675.22 and §675.23 and to develop any proposed changes. (See *LLW Notes*, May/June 2013, p. 12.) In addition, the Rules Committee began reviewing the White Paper. The Rules Committee included Commissioners Linda Morris, Richard Saudek and Robert Wilson.

In establishing the Rules Committee, the Texas Compact Commission stated that it was key to the rule development process to seek input to the

Rules Committee deliberations prior to the development of a draft rule proposal. Subsequently, the draft was submitted to the full Texas Compact Commission for its action prior to proposal in the *Texas Register*.

On July 18, 2014, the Texas Compact Commission announced the availability for public review and comment of working drafts of proposed revisions to 31 TAC §675.21, §675.22 and §675.23 related to exportation and importation of waste. (See *LLW Notes*, July/August 2014, p. 12.)

On May 8, 2015, the rule proposal was published in the *Texas Register*. On May 29, 2015, the Texas Compact Commission conducted a stakeholder meeting on the proposed rules at the Double Tree Hotel in Austin, Texas. The comment period on the proposed rules closed on June 22, 2015. (See *LLW Notes*, May/June 2015, pp. 1, 13-18.)

*The proposed rulemaking can be obtained from the Texas Compact Commission's website at http://www.tllrwdcc.org/rules/. Texas Compact Commission meeting agendas may also be found on the Commission's website.*

*For additional information, please contact Texas Compact Commission Executive Director Leigh Ing or Texas Compact Commission Executive Assistant Audrey Ferrell at (512) 305-8941.*

***Texas Compact Commission/State of Texas***

# NRC Staff Recommends to Allow Texas to License GTCC Waste Disposal

In SECY-15-0094, dated July 17, 2015, U.S. Nuclear Regulatory Commission (NRC) staff provides the Commission with an historical perspective on the disposal of Greater-Than-Class C (GTCC) low-level radioactive waste and seeks Commission approval of the staff's recommendation to allow the State of Texas to license the disposal of GTCC waste.

By letter dated January 30, 2015, the Texas Commission on Environmental Quality (TCEQ) had inquired whether it possesses the authority to license a GTCC waste disposal cell that would receive GTCC, GTCC-like, and transuranic (TRU) waste streams. GTCC-like waste is U.S. Department of Energy (DOE) generated or owned low-level radioactive waste that may also contain TRU wastes with characteristics similar to GTCC.

On August 13, 2015, NRC held a public briefing of the Commissioners on the current regulatory environment and challenges for the disposal of GTCC low-level radioactive waste. (See related story, this issue.)

*SECY-15-0094 can be found in the NRC's Agency-Wide Documents Access and Management System (ADAMS) under Accession No. ML15162A807.*

**Summary**

The Low-Level Radioactive Waste Policy Amendments Act of 1985 (Amendments Act) states that NRC licensee generated GTCC waste "shall be disposed of in a facility licensed by the [NRC]." In 1989, the NRC promulgated a

regulation specifying that GTCC waste must be disposed of in a geologic repository licensed by the NRC unless the Commission approves an alternative proposal. In September 2014, the Commission directed the staff to provide an historical perspective on GTCC waste disposal in Staff Requirements Memorandum (SRM)-M140918, "Briefing on Management of Low-Level Waste, High-Level Waste, and Spent Nuclear Fuel."

On January 30, 2015, TCEQ sent a letter to the NRC requesting responses to questions concerning the state's authority to license a disposal cell for GTCC, GTCC-like, and TRU waste. Thereafter, the staff conducted an analysis of Texas' authority to license and regulate the disposal of GTCC, GTCC-like and TRU waste in order to answer Texas' inquiry. The staff developed three options, identifying and evaluating the strengths and challenges for each of the options. Based on the results of the staff's analysis, the staff recommends proceeding with Option 2—i.e., NRC would allow the State of Texas to license and regulate the disposal of GTCC waste which may be co-mingled or co-located with GTCC-like and TRU waste under Commission approval pursuant to 10 CFR § 61.55 (a)(2)(iv) and the NRC staff would pursue a rulemaking to address TRU waste disposal in Part 61.

**Discussion**

According to NRC staff, TCEQ's letter raises two fundamental questions:

- Can the State of Texas, as an Agreement State, regulate the disposal of GTCC waste?
- What is the regulatory path for disposal of TRU waste?

To answer these questions, NRC staff looked to the Amendments Act, which governs the disposal of low-level radioactive waste (including commercially generated GTCC). Under the Amendments Act, Congress delineated responsibility between the states and the federal government for the disposal of certain classes of waste. The states are responsible for the disposal of low-level radioactive waste generated within their borders, and the federal government is responsible for certain waste streams it generates (i.e., waste generated or owned by the DOE, certain naval waste streams, and waste that the federal government generates or owns as a result of activities related to atomic weapons), as well as GTCC waste. NRC staff found, however, that the Amendments Act lacks clarity for purposes of answering TCEQ's question regarding authority to license a GTCC disposal facility, stating as follows:

> Specifically at issue is the operative provision regarding licensing of a GTCC facility found in Section 3(b)(2). A strict reading of this provision would lead to the conclusion that only the NRC can license a GTCC waste disposal facility (or, at a minimum, that only the NRC can license a facility for the disposal of GTCC waste resulting from activities licensed by the NRC, which would be activities licensed in States that are not Agreement States), while a broader reading of the statute, along with its legislative history, could allow for the conclusion that an Agreement State may license such a facility.

In this regard, NRC staff points out that "the Amendments Act does not specify a licensing authority for the Federal waste streams designated a Federal responsibility under Sections 3(b)(1)(A)-(C)." Therefore, according to NRC, "these waste streams may be disposed of in a facility of DOE's choosing, either Federal (established by DOE or the DOD) or commercial (licensed by NRC or an Agreement State)."

Under Section 274(b) of the Atomic Energy Act (AEA), the NRC may relinquish portions of its AEA-derived regulatory authority to license and

regulate byproduct materials, source materials, and certain quantities of special nuclear materials to states that have entered into an Agreement with the NRC. Texas entered into its Agreement with the NRC in 1963. Under its Agreement, the State of Texas has the full extent of authority that may be relinquished under Section 274(b), including the disposal of low-level radioactive waste.

NRC staff reviewed the legislative history of the Amendments Act for insight into Congressional intent and purpose behind the Amendments Act. According to NRC staff, "[t]he Congressional purpose behind Section 3 of the Amendments Act was to delineate responsibility for waste disposal to ensure there was no 'orphan waste;' it was not to retool authority or jurisdiction for regulating disposal." Moreover, NRC staff finds that, "[w]hile it is clear that Congress wanted to establish the responsibilities for waste disposal, particularly since the 1980 Act had been less than effective at compelling States into action, it is equally clear that Congress did not want to dissuade State action on … [low-level radioactive waste] disposal by foisting an obligation on States to dispose of waste streams that were less well understood at that time."

In addition to the question concerning jurisdiction for GTCC waste disposal, Texas asked about the disposal path for TRU waste. According to NRC staff, 10 CFR Part 61 is not internally consistent with respect to its treatment of TRU waste. The Part 61 definition of low-level radioactive waste specifically excludes TRU waste. "Nonetheless, provisions describing the purpose and the scope of Part 61 do not list disposal of TRU waste among the activities specifically excluded from Part 61 and, in fact, waste streams containing TRU nuclides are addressed in Table 1 of 10 CFR § 61.55," states NRC staff. "Therefore, the best reading of Part 61 is that disposal of waste streams containing TRU nuclides is included within the scope of Part 61. NRC staff further notes that, in a 1988 amendment to the AEA, a definition for TRU waste was added that defines TRU waste as a "material contaminated with elements that have an atomic number greater than 92 . . . and that are in concentrations greater than 10 nanocuries per gram, or in such other concentrations as the [NRC] may prescribe to protect the public health and safety."

NRC staff also notes that while TRU waste is excluded from the definition of low-level radioactive waste under 10 CFR Part 61, based on Table 1 of 10 CFR § 61.55, waste streams that contain alpha emitting TRU nuclides with half-lives greater than 5 years and a concentration that does not exceed 10 nanocuries (nCi)/gram (gm) are not TRU waste, because they do not meet the nanocurie limits in the AEA definition of TRU waste, and thus may be disposed of as Class A waste. Furthermore, NRC staff notes that waste streams containing alpha emitting TRU nuclides with half-lives greater than 5 years and a concentration greater than 10 nCi/gm, but less than 100 nCi/gm, are TRU waste as defined under the AEA, but as a health and safety matter have characteristics that fall within the limits set by Part 61 for Class C waste. Thus, NRC staff concludes that these waste streams can be treated as low-level radioactive waste, consistent with the latter portion of the AEA definition of TRU waste allowing the NRC to prescribe concentrations protective of public health and safety. TRU waste streams with concentrations greater than 100 nCi/gm are not low-level radioactive waste and cannot be disposed of in a low-level radioactive waste disposal facility.

To further complicate the definition of TRU waste, NRC staff points out that the 1980 Act defined low-level radioactive waste in a manner that excluded waste not classified as, amongst other things, TRU waste. NRC staff finds that this is consistent with the characterization of low-level radioactive waste found within the definition of waste in 10 CFR Part 61. The Amendments Act, however, amended the original definition of low-level radioactive waste used in the 1980 Act by removing TRU waste from the list of items that could not qualify as low-level radioactive waste. The NRC never made a corresponding

change to 10 CFR Part 61, although it could have done so. Thus, according to NRC staff, the NRC regulations do not include TRU waste as a low-level radioactive waste.

"It is worth noting that waste with non-defense alpha emitting TRU nuclides with half-lives greater than 5 years and a concentration greater than 100 nCi/gm may be co-mingled with the GTCC waste," states NRC staff. "The DOE has indicated that up to 87 percent of the current and projected volume … of GTCC wastes cited in DOE … [Environmental Impact Statement (EIS)] has TRU nuclides greater than 100 nCi/gm."

**Options for GTCC Waste Disposal**

NRC staff reviewed the Amendments Act, legislative and regulatory history, and health and safety aspects associated with such waste and, based on this analysis, offered three options to address the relevant issues. It should be noted that for Options 1 and 2, staff would review and may need to update NUREG-1200, "Standard Review Plan for the Review of a License Application for a Low-Level Radioactive Waste Disposal Facility" (SRP). The SRP was issued in 1994, prior to the events of September 11, 2001, and NRC staff has determined that a fresh assessment will be warranted to ensure the SRP adequately addresses issues such as physical security of GTCC and TRU waste.

<u>Option 1: The NRC would license and regulate the receipt and disposal of GTCC waste at WCS and would pursue rulemaking to amend 10 CFR Part 61 to address TRU waste disposition.</u>

"Under a plain reading of Section 3(b)(2) of the Amendments Act, the NRC is the licensing authority for disposal of GTCC waste (or, more specifically, GTCC waste resulting from activities licensed by the NRC)," states NRC staff. "Similarly, under the plain reading of this Section, GTCC waste specified in Section 3(b)(2) that is comingled with DOE's GTCC-like waste, would be required to be disposed of in a facility licensed by the NRC. This is because, under this reading of the Amendments Act, DOE may only dispose of GTCC waste in an NRC licensed facility." According to NRC staff, as a practical matter, separation of the co-mingled GTCC, GTCC-like, and TRU waste is not an option. For waste that is not co-mingled, if GTCC waste and GTCC-like waste are disposed of in separate cells, then the NRC would be required to license only that cell in which the GTCC waste is disposed.

NRC staff would need to perform a review and evaluation of the license application, including the performance assessments prepared by the applicant and other information required in 10 CFR Part 61. Staff would also need to develop site-specific technical safety and security requirements to be included as license conditions for such waste as an alternate proposal under 10 CFR § 61.55(a)(2)(iv). Because licensing GTCC waste disposal would be a major federal action significantly affecting the quality of the human environment, staff has determined that it would also need to prepare an EIS as required by 10 CFR § 51.20(a)(1). After consideration of staff recommendations, the Commission could then make the necessary determinations to address health and safety of TRU and GTCC waste disposal under 10 CFR § 61.55(a)(2)(iv) and make a licensing decision.

According to NRC staff, a rulemaking to develop generic standards for disposal of GTCC and TRU waste would not be required in order to pursue Option 1 since the NRC would be developing site-specific safety and security criteria and license conditions to prescribe adequate conditions for the disposal of GTCC and TRU waste. However, according to the NRC staff paper, the Commission would nonetheless initiate a rulemaking to address TRU waste disposal in 10 CFR Part 61. This rulemaking would provide generically applicable disposal criteria for TRU waste since the current definition of low-level radioactive waste in 10 CFR § 61.2 specifically excludes TRU waste. As a part of the rulemaking, NRC staff would develop a

regulatory basis to determine whether TRU waste with concentrations greater than 100 nCi/gm can be disposed of using near-surface disposal. "It is possible that the staff could use the technical basis developed to support the licensing action at WCS as a foundation for development of generic safety and security criteria for the near-surface disposal of TRU waste," states NRC staff. "The Commission could also elect to include development of generic safety and security criteria for GTCC waste disposal in the rulemaking in order to establish a broadly applicable program to facilitate review of future disposal applications."

NRC staff has identified the following "pros" associated with Option 1:

- Option 1 is a legally and technically sound option because the proposed approach will result in development of site-specific safety and security criteria that will ensure protection of the health and safety of the public while carrying out Congressional direction reflected in the specific language set forth in Section 3 (b)(2) of the Amendments Act that specifies that GTCC waste shall be disposed of in a facility licensed by the NRC.

- Option 1 would establish a clear-cut, exclusive federal licensing pathway for GTCC waste disposal.

- Licensing of GTCC and TRU waste disposal could go forward without a rulemaking as a site-specific solution.

NRC staff has identified the following "cons" associated with Option 1:

- WCS would either have to construct a new cell for disposal of GTCC, GTCC-like, and TRU waste, or the NRC would have to issue a new license applicable to that portion of the facility used for GTCC waste disposal after conducting a review of a license application from WCS and offering an opportunity for a hearing. The WCS facility currently includes a Federal Waste Facility (FWF) licensed by Texas under its 10 CFR Part 61 compatible state regulations. The FWF is a cell devoted to waste designated a federal responsibility under the Amendments Act. Therefore, there may be a desire to use the FWF for GTCC waste disposal, as opposed to constructing a new cell. Use of the FWF would in all likelihood require that the license issued by Texas be amended to remove the FWF from that license. Such action may pose technical challenges as it relates to the disposal of GTCC and TRU waste.

- In order to undertake Option 1 with existing NRC resources, current priorities and workload would need to be reevaluated and adjusted. Some current activities would need to be shed.

- This option would be more resource intensive than Option 2. For example, in addition to the licensing action, staff would either develop an inspection program for the NRC licensed cell or explore the possibility of entering into a 274i agreement with the State of Texas to allow the state to inspect the facility instead of the NRC.

<u>Option 2: The NRC would allow the State of Texas to license and regulate the disposal of GTCC waste and NRC staff would pursue a rulemaking to address TRU waste disposal in Part 61</u>.

Under Option 2, the State of Texas would license the GTCC waste disposal facility. However, the Commission would have to approve a proposal from the State of Texas to license near- surface disposal of GTCC waste in accordance with 10 CFR § 61.55(a)(2)(iv). The NRC staff would be available to support the State of Texas in conducting the licensing action including developing technical safety and security criteria and could conduct a peer review, if requested. Regulation of such disposal would be reviewed

under the Integrated Materials Performance Evaluation Program (IMPEP). According to NRC staff, on March 25, 2015, TCEQ requested that NRC staff perform a peer review of the performance assessment model submitted to TCEQ by WCS on GTCC waste disposal at the Texas site. The NRC staff has provided preliminary comments and TCEQ has requested continued engagement on this model. However, as the licensing authority, NRC staff has determined that Texas would need to issue a new license or amend the facility's existing license to incorporate the necessary criteria into the license.

Under Option 2, in order to generically resolve the issue of TRU waste disposal, the NRC would need to conduct a rulemaking to address TRU waste in 10 CFR Part 61 as referenced under Option 1. Once the NRC issues the final rule addressing TRU waste in 10 CFR Part 61, Texas would adopt compatible requirements.

Alternatively, NRC staff states that the State of Texas could license the facility, but only for the disposal of GTCC and GTCC-like waste that does not include TRU waste. According to NRC staff, this more limited disposal option would alleviate the need for a rulemaking to address TRU waste in 10 CFR Part 61. However, it would offer only a partial solution to disposal of the commercially generated GTCC waste currently in and projected to be in DOE's possession (i.e., according to DOE, at a minimum, 13 percent of the total volume of GTCC waste is not contaminated with TRU nuclides greater than 100 nCi/gm). "It is questionable whether such a small amount of GTCC waste would warrant a pursuit of this disposal solution," states NRC staff.

NRC staff has identified the following "pros" associated with Option 2:

- Option 2 with rulemaking offers the benefit of providing generic regulatory requirements for disposal of GTCC and TRU waste.
- Option 2 is consistent with the historical Commission statement expressing a desire to retain the option of allowing states to regulate GTCC waste disposal.
- From a practical perspective, Option 2 is advantageous because Texas is familiar with the site at WCS, having licensed the facility. This may result in greater regulatory efficiency if Texas is responsible for the licensing of a GTCC waste disposal cell at WCS.
- Option 2 would establish clear-cut federal and state licensing pathways for the disposal of GTCC waste.

NRC staff has identified the following "cons" associated with Option 2:

- Completing a rulemaking to incorporate TRU into the definition of low-level radioactive waste could cause licensing delays.
- There is some risk with this option because the statute could be read as conferring authority only upon the NRC.
- Current priorities and workload would need to be reevaluated and adjusted to coordinate with the State of Texas in the development of technical safety and security criteria for the review of an application and to conduct a rulemaking to generically resolve issues concerning TRU and GTCC waste disposal with existing NRC staff resources. Some existing activities may need to be shed.

<u>Option 3: No-action</u>.

The Commission could decline to extend the 10 CFR Part 61 licensing scheme to allow near-surface disposal of GTCC and TRU waste without further development of a safety and security regulatory framework. This option maintains the Commission policy preference for the disposal of GTCC waste in a geologic repository. The GTCC and TRU waste streams can continue to be safely

stored until geologic disposal is developed for these wastes. Under this option, the NRC would advise Texas that the state does not have authority to license disposal of GTCC or TRU waste without Commission action. According to NRC staff, "[t]he response to the Texas letter should clarify that the State will need to ensure any action it takes on the WCS PRM should not result in any incompatible regulations."

NRC staff has identified the following "pro" associated with Option 3:

> Option 3 requires minimal staff resources to address the disposal of GTCC and TRU waste at this time, allowing the NRC to focus on other higher-priority safety issues. This assumes, based on the Commission's direction, that staff would only need to respond to Texas's inquiry.

NRC staff has identified the following "cons" associated with Option 3:

- Option 3 would delay any decisions regarding disposal of GTCC and TRU waste until a geologic repository is developed or an alternative justified.
- No specific technical safety and security criteria would be developed to address disposal of GTCC waste.

**NRC Staff Recommendation**

Although NRC staff has determined that all of the options are protective of public health and safety, based on its analysis, the staff recommends Option 2. Staff also recommends a rulemaking in order to generically revise the definition of low-level radioactive waste to address TRU waste in 10 CFR § 61.2. According to NRC staff, "Proceeding with Option 2 would allow the Federal Government to meet its statutory responsibilities under the Amendments Act and the AEA, as amended, by authorizing Texas to exercise its AEA-derived regulatory authority for the licensing of … [low-level radioactive waste]."

"Option 2 with rulemaking offers the benefit of providing a broadly applicable regulatory solution for any future disposal questions concerning TRU and GTCC waste," states NRC staff, "as the standards promulgated through a rulemaking would be codified, rather than limited to just the more narrowly tailored set of site-specific criteria developed for WCS."

NRC staff acknowledges that the proposed rulemaking under Option 2 could be reviewed as inconsistent with the current and projected environment of constrained resources. However, the staff argues that there are compelling reasons that justify the need for a rulemaking including creating a national standard for an otherwise orphan waste stream. Furthermore, NRC staff has determined that Option 2 would require fewer resources than Option 1. Staff also points out that DOE is expected to issue its final EIS on GTCC waste disposal in 2015. "While Commission approval of either Option 1 or Option 2 would establish a clear licensing pathway for DOE's GTCC waste disposal," states NRC staff, "Option 2 offers additional practical efficiency as Texas has already licensed the WCS facility for disposal of Class A, B, and C … [low-level radioactive waste]."

**Background**

10 CFR § 61.2 defines low-level radioactive waste as radioactive waste not classified as high-level radioactive waste, TRU waste, spent nuclear fuel, or byproduct material as defined in paragraphs (2), (3), and (4) of the definition of byproduct material set forth in 10 CFR § 20.1003. 10 CFR § 61.55(a)(2) sets out the classification scheme for low-level radioactive waste that includes Class A, Class B, Class C, and waste "for which form and disposal methods must be different, and in general more stringent, than those specified for Class C waste" (i.e., GTCC).

In 1985, Congress amended the Low-Level

Radioactive Waste Policy Act of 1980 (1980 Act) to clarify the responsibilities of the states versus those of the federal government. In the Amendments Act, Congress addressed all classes of low-level radioactive waste, including GTCC. Responsibility for the disposal of federally generated waste streams as set forth in Sections 3 (b)(1)(A)-(C) of the Amendments Act, as well as GTCC waste described under Section 3(b)(1)(D), was assigned to the federal government. Under Sections 3(b)(1)(A)-(C), the federal government is responsible for the waste that the DOE generates, certain naval waste streams, and waste the federal government generates or owns as a result of activities related to atomic weapons.

Furthermore, Section 3(b)(2) of the Amendments Act states that GTCC wastes resulting from activities licensed by the NRC under the AEA "shall be disposed of in a facility licensed by the [NRC] that the Commission determines is adequate to protect human health and safety." Thus, federal waste streams designated a federal responsibility under Sections 3(b)(1)(A)-(C) could conceivably consist of all classes of low-level radioactive waste and may be disposed of in a facility of DOE's choosing, either federal (established by DOE or the U.S. Department of Defense (DOD)) or commercial (licensed by NRC or an Agreement State). It is only the GTCC waste streams in Section 3(b)(1)(D), as conditioned by Section 3(b)(2), for which the Amendments Act explicitly designates the licensing authority for a disposal facility as the NRC. In February 1987, the DOE issued a Report to Congress (DOE/NE-0077), in which DOE acknowledged its responsibility for the waste designated in Section 3(b)(1)(D) of the Amendments Act.

Following the enactment of the Amendments Act, NRC amended 10 CFR § 61.55 to provide a mechanism by which GTCC waste may be disposed of in an NRC licensed low-level radioactive waste disposal facility subject to Commission approval of the disposal. As a part of that rulemaking, the Commission clarified that it found no health and safety basis to limit GTCC waste disposal to federal facilities to the exclusion of other facilities licensed under the AEA (which would include facilities licensed by Agreement States), and that the Amendments Act appeared to recognize the continued authorities of states to license facilities to accept GTCC waste for disposal.

In September 2014, the Commission directed the staff in SRM-M140918 to provide a paper on NRC's regulatory history on GTCC waste disposal with a discussion on the types of GTCC waste streams and disposal challenges, including risk-significant sealed sources.

To meet its obligation under the Amendments Act, in 2011, DOE issued a "Draft Environmental Impact Statement [EIS] for the Disposal of Greater-Than-Class C (GTCC) Low- Level Radioactive Waste and GTCC-Like Waste." The draft EIS considered the potential environmental impacts associated with constructing and operating a new facility or facilities, or using an existing facility, for the disposal of GTCC waste. DOE categorized the GTCC waste into activated metals, sealed sources, and other waste. DOE analyzed four methods of disposal including geologic repository, above grade vault, enhanced near-surface trench, and intermediate depth borehole. The GTCC waste could be co-mingled with TRU waste. DOE did not identify a preferred alternative in the draft EIS. Although DOE does not specifically discuss Agreement State authority, it asserts in its EIS that GTCC waste "cannot be disposed of in currently licensed commercial … [low-level radioactive waste] disposal facilities." As to the licensing authority, DOE reiterates the language from the Amendments Act, stating that the NRC is to license the disposal of GTCC waste addressed in Section 3(b)(1)(D). According to SECY-15-00954, DOE anticipates issuing the final EIS considering stakeholder comments and suggesting a preferred alternative in calendar year 2015.

On June 20, 2014 (resubmitted on July 21, 2014), WCS filed a Petition for Rulemaking (PRM) with the State of Texas. The PRM requests the State revise certain provisions of the Texas Administrative Code (TAC) to remove prohibitions on the disposal of GTCC and GTCC-like waste at the company's low-level radioactive waste disposal facility, which would allow WCS to receive the DOE inventory of GTCC and GTCC-like waste. As a result of the PRM, on January 30, 2015, TCEQ submitted a letter to the NRC requesting clarification of its jurisdiction to license the disposal of GTCC, GTCC-like, and TRU waste. The TCEQ letter raises legal and policy issues regarding GTCC, GTCC-like and TRU waste disposal.

*Information regarding Statutory Language and Regulatory History of GTCC Waste Disposal can be found in ADAMS under Accession No. ML15162A816. Information regarding Technical Considerations Associated with GTCC Waste Disposal and a Qualitative Examination of Disposal Challenges can be found in ADAMS under Accession No. ML15162A821. Information regarding Statutory Language and Regulatory History of Commercial Transuranic Waste Disposal can be found in ADAMS under Accession No. ML15162A828.*

*TCEQ's January 30, 2015 letter can be found in ADAMS under Accession No. ML15034A174.*

*For additional information, please contact Melanie Wong of the NRC at Melanie.Wong@nrc.gov or at (301) 415-2432.*

***Nuclear Power Plants and Other NRC Licensees***

# News Briefs for Nuclear Power Plants Across the Country

The following news briefs provide updates on recent activities, enforcement actions and general events at nuclear power plants and other licensees around the country. The briefs are organized by compact and state.

*For additional information, please contact the referenced facility or licensee.*

**Atlantic Compact/State of New Jersey**

**Mistras Group, Inc.** On June 30, 2015, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency had cited Mistras Group, Inc., of Princeton Junction, New Jersey for two violations of NRC requirements and proposed a $7,000 civil penalty. During a review of Mistras' export records, the NRC found that in July of 2014, Mistras exported two iridium-192 sealed sources to a company in Canada, without obtaining a specific export license as required. In addition, the company did not provide the export notifications to the NRC and the Canadian government in advance of the export of sources, as required. In March 2015, the NRC notified Mistras of the apparent violations and offered the company the opportunity to provide additional information to the agency. In April 2015, the company provided a written response. After considering the response and the findings of the NRC review, the agency has concluded that the violations are appropriately characterized as a Severity Level III problem. Level III is the second-least serious of the NRC's violation levels, though Level III violations are significant enough to warrant consideration of a civil penalty. The company is not required to provide an additional response to the NRC because information regarding the reason for the

violations, the corrective actions that have been or will be taken and the results achieved and the date when full compliance with NRC requirements will be achieved has already been provided to the NRC.

**Central Compact/State of Arkansas**

**Arkansas One Nuclear Power Plant** On September 17, 2015, NRC staff will meet in Russellville, Arkansas with representatives of Entergy Operations to discuss preparations for a comprehensive inspection to be conducted in early 2016 at Arkansas Nuclear One. The plant is located in Russellville. The meeting, which will be open to the public, is scheduled to begin at 6:00 p.m. in the Lakepoint Conference Center, which is located at 61 Lake Point Lane. Entergy officials will brief the NRC on preparations they are making for the comprehensive inspection being conducted because of significant performance issues that warrant the highest level of NRC oversight of operating plants. Inspectors will devote about 3,000 hours of effort to independently assess the adequacy of Entergy programs and processes used to identify, evaluate and correct performance issues; provide insights into the causes of performance deficiencies; and, evaluate the adequacy of a third-party safety culture assessment conducted at the site. The public is invited to observe the meeting and will have an opportunity to ask questions or comment after the business portion is conducted. The NRC uses color-coded inspection findings and performance indicators to assess nuclear plant performance. The colors start with green and then increase to white, yellow, or red—commensurate with the safety significance of the issues involved. Performance indicators are statistical measurements of plant and equipment performance. The NRC's action matrix reflects overall plant performance and agency response. There are five columns in the matrix with Column 1 requiring a baseline level of inspections. Plants in Column 5 are not permitted to operate. The NRC increases the level of oversight and inspection as plant performance deteriorates. In June 2014, the NRC issued yellow findings to Arkansas Nuclear One in connection with a 2013 heavy equipment-handling incident at the plant. In January 2015, the NRC issued yellow findings associated with flood protection at the plant. The cumulative effect of these violations moved the plant into Column 4, and it is receiving the highest level of NRC oversight of operating plants. Inspections will be performed by three NRC resident inspectors assigned to the plant; inspection specialists from the Region IV office in Arlington, Texas; and, specialists from the agency's headquarters in Rockville, Maryland as well as other regional offices, as needed. Information about the plant's current performance is available on the NRC web site.

**Central Midwest Compact/State of Illinois**

**Clinton Nuclear Power Plant** On August 12, 2015, NRC announced that the agency staff issued a white finding of low-to-moderate safety significance to the Clinton nuclear station for the failure to make sure that a safety-related pump would continue to perform its safety function following modifications. The finding will result in increased oversight by the NRC. On September 16, 2014, a shutdown cooling water pump failed to start during a required operability test. A subsequent review showed that the pump stopped functioning at the conclusion of a similar test performed on May 30, 2014. The failure went undetected and the pump was inoperable for 108 days, which is a violation of NRC requirements. This pump provides water to cool safety-related equipment under certain conditions, such as a loss of offsite power. Another pump remained operable and would have been available to fulfill this safety function if needed. NRC inspectors determined that the pump failed because, while performing modifications in 1995, the plant did not conduct sufficiently thorough design analysis required by the NRC to ensure the pump's long-term operability. Required tests regularly performed since 1995 demonstrated that the pump remained operable until its failure in 2014. "The cooling water pump failure did not

have a direct impact on plant or public safety. However, when licensees make modifications to safety equipment, we require them to perform a thorough analysis to ensure that safety systems stand ready in case of an event," said NRC Region III Administrator Cynthia Pederson. "Clinton failed to perform this required level of analysis and will have to demonstrate to us that they have corrected this deficiency." The company installed a new a pump of a similar design in September 2014 and committed to additional monitoring to ensure it will remain operable until a new pump with an updated design can be installed in 2016. The NRC will conduct an inspection to independently verify that the plant understands the cause of the problem and has taken sufficient action to make sure it does not recur. As a result of this finding, the plant will move from Column 1 to Column 2 of the NRC's Action Matrix, as of the first quarter of 2015. The NRC inspection report is publicly available on the NRC website by using accession number ML15134A224, and the notice of violations is available under accession number ML15223B382. The plant, operated by Exelon Generation LLC, is located in Clinton, Illinois—approximately 23 miles southeast of Bloomington.

**Honeywell International, Inc.** On August 3, 2015, NRC announced that the agency had launched a special inspection at Honeywell Metropolis Works to assess a uranium hexafluoride leak that occurred during maintenance activities two days earlier. The Metropolis, Illinois-based uranium conversion facility declared an Alert, the lower of the NRC's two emergency classification levels for fuel facilities, at 5:55 p.m. CDT on August 1, 2015. Honeywell reported that a valve installed during the maintenance activities had begun to leak. No one at the facility was injured and the company reported that no material was released past the site boundary. The company reported that workers were able to stop the leak at 7:48 p.m. CDT. Honeywell officials indicated that the leak was on the sixth floor of the plant's Feed Materials Building. The facility's mitigation towers, which are large water sprays, were activated, and according to Honeywell, no uranium hexafluoride left the plant site. Monitoring devices located at the site boundaries detected no radiological release beyond regulatory limits. "This special inspection will analyze all the details of this incident," said Victor McCree, the NRC's Region II Administrator. "While no workers were affected and there was no offsite release, any release of uranium hexafluoride is a potentially serious event." The special inspection will look at the sequence of events leading up to the release; verify that the company followed its procedures for mitigating the release and notifying local and state agencies; verify the initial information indicating that the material remained within the plant boundary; and, assess the performance of the plant's detection and sampling systems. The NRC inspectors will also review any corrective actions the company has taken or is planning to take. A report documenting NRC's findings will be issued within 45 days after the inspection is completed.

**Midwest Compact/State of Wisconsin**

**Kewaunee Nuclear Power Plant** On July 16, 2015, NRC officials held a public meeting to update the public on the status of NRC's ongoing and future oversight activities at the Kewaunee Nuclear power plant following the station's decision to decommission the plant and its permanent shutdown in May 2013. The meeting was held from 6:00 – 7:00 p.m. at the Carlton Town Hall, which is located at N 1296 Town Hall Road in Kewaunee, Wisconsin. NRC staff presented information on inspections and changes to the license since the Kewaunee facility ceased operation and were available to answer questions from the public. The NRC has conducted and documented a number of inspections since the plant ceased operation including environmental monitoring, emergency preparedness, security and spent fuel storage. Kewaunee Power Station—owned by Dominion Energy Kewaunee, Inc.—is located 27 miles southeast of Green Bay. The

facility began commercial operation in June 1974. The plant officially ceased operation on May 14, 2013 when Dominion certified that all nuclear fuel had been permanently removed from the reactor. The Kewaunee license no longer authorizes operation of the plant, but will remain in effect until Dominion completes the decommissioning process and the NRC notifies the company that the license has been terminated. The facility is being placed in a safe, stable condition called SAFSTOR. It will be maintained in this condition until the company begins the actual decommissioning process, which will involve dismantling plant equipment and structures and decontamination to levels that permit license termination. NRC inspectors will continue to monitor the safety and security of the site; provide oversight over key decommissioning activities as they occur; and, verify that the decommissioning process has been completed in accordance with NRC requirements. Dominion's Post-Shutdown Decommissioning Activities Report and Revised Report for Kewaunee are available in the NRC's online document system. Information about the Kewaunee plant and the decommissioning process are available on the NRC website.

**Southeast Compact/State of Tennessee**

**Watts Bar Nuclear Power Plant** On July 27, 2015, NRC held a meeting to discuss the results of the operational readiness team inspection of Unit 2 at the Watts Bar nuclear plant. That inspection, which concluded in June 2015, was the main focus of the discussion; however, NRC staff also covered the status of construction activities, including major milestones and the path forward for the NRC decision on whether to issue an operating license for the unit. The meeting was held from 6:00 to 7:30 p.m. in the Comfort Inn at 2811 Decatur Pike in Athens, Tennessee. The meeting was open to the public and NRC staff was available to answer questions or provide additional information after the business portion of the meeting. A teleconference line was available for people unable to attend. The Watts Bar plant is operated by the Tennessee Valley Authority and is located near Spring City, Tennessee—approximately 60 miles southwest of Knoxville. TVA began work on the two units at the Watts Bar site in the 1970s. Watts Bar Unit 2 was suspended in 1985 with an active construction permit, and TVA restarted construction in 2007. If Watts Bar Unit 2 does meet all NRC requirements and receives an operating license, it will be the first nuclear plant to go into commercial operation in this country since Watts Bar Unit 1 in 1996.

**State of Nebraska**

**Fort Calhoun Nuclear Power Plant** On June 29, 2015, NRC announced that the agency had begun a special inspection at the Fort Calhoun nuclear plant to review circumstances surrounding a June 5 reported failure of an auxiliary feed-water valve that controls water flow to the steam generator. The plant, which is operated by Omaha Public Power District, is located 19 miles north of Omaha, Nebraska. During a refueling outage, workers replaced seal material in a valve that controls cooling water flow into one of the steam generators. During testing, the valve failed to open as designed. Workers discovered that the new seal material was not adequate for the operating temperature of the valve. The seal material was replaced with a material rated for higher temperatures. Following successful testing, the plant resumed start up activities. "The purpose of this special inspection is to better understand the circumstances surrounding the valve failure, determine if the licensee's extent of condition review was sufficiently comprehensive, and review the licensee's corrective actions to ensure that the causes of the failure have been effectively addressed," NRC Region IV Administrator Marc Dapas said. NRC staff determined that a special inspection is warranted because the valve provides an important safety function in the mitigation of plant events. NRC inspectors spent about a week on site evaluating the licensee's root cause analysis, extent of

*(Continued on page 9)*

***Atomic Safety and Licensing Board***

# ASLB Holds Hearings re Indian Point and Crowe Butte Facilities

The following is a brief overview of recent activities of the U.S. Nuclear Regulatory Commission's (NRC's) Atomic Safety and Licensing Board (ASLB).

The ASLB is the independent body within the NRC that conducts adjudicatory hearings and renders decisions on legal challenges to licensing actions.

**Indian Point Nuclear Power Plant**

On July 30, 2015, an ASLB heard oral argument in Rockville, Maryland concerning a challenge to a proposed license amendment for Unit 2 of the Indian Point nuclear power plant in Buchanan, New York.

The session started at 1:00 p.m. in the board's hearing room on the third floor of the NRC's Two White Flint North building, which is located at 11555 Rockville Pike in Rockville, Maryland. The oral argument addressed the admissibility of contentions filed by the State of New York. The state contends the plant owner, Entergy, failed to meet several legal requirements in requesting a schedule change for testing Unit 2's containment structure.

Members of the public and media were allowed to observe the session, but participation was limited to lawyers for New York, Entergy, and the NRC staff.

*For additional information, please contact Scott Burnell of the NRC at (301) 415-8200.*

**Crowe Butte Uranium Recovery Facility**

On August 24, 2015, an ASLB held a hearing in Crawford, Nebraska on challenges to the license renewal for Crow Butte Energy Resources Inc.'s uranium recovery facility near Crawford. The NRC renewed the facility license in 2014, with an expiration date of November 5, 2024.

Evidence presented at the hearing addressed nine contentions filed by several local residents and the Western Nebraska Resources Council (known as consolidated interveners) and the Oglala Sioux Tribe. The board heard arguments on four technical contentions and five related to the environmental review. The contentions challenged the adequacy of the evaluation and protection of historical resources at the site, as well as the NRC's analysis of the facility's impacts on surface water, groundwater, and the ecosystem.

The hearing ran from 9:30 a.m. to 6:00 p.m. at the Crawford Community Center beginning on August 24 until all evidence was heard. Members of the public and media were invited to observe the evidentiary hearing, but participation was limited to the parties, lawyers and witnesses.

The board also asked for written comments from interested members of the public. These statements are not testimony or evidence, but may aid the board and the parties in considering the issues in the hearing. Written statements were required to be submitted by August 28, 2015.

Documents related to the Crow Butte license renewal application are available on the NRC website. Documents regarding this ASLB proceeding are available on the NRC's Electronic Hearing Docket by clicking on the folder entitled "Crow_Butte_Rsrces_40-8943-OLA" on the left side of the page. More information about the role of the ASLB in the licensing process is available on the NRC website.

*For additional information, please contact Maureen Conley of the NRC at (301) 415-8200.*

***U.S. Department of Energy***

# DOE Announces MIMS Updates

The U.S. Department of Energy (DOE), with excellent cooperation with the commercial disposal facilities, has updated the Manifest Information Management System (MIMS) to include all Calendar Year 2014 data for the four operating commercial low-level radioactive waste disposal facilities in the United States.

"We look forward to our continued coordination with … the LLW Forum on our Manifest Information Management System activities," states James Joyce of DOE's Office of Disposal Operations.

The Manifest Information Management System can be found at http://mims.doe.gov/.

*For additional information, please contact James Joyce of the U.S. Department of Energy's (DOE's) Office of Disposal Operations at (301) 903-2151 or at James.Joyce@em.doe.gov.*

***U.S. Department of Energy / U.S. Nuclear Regulatory Commission***

# Public Meetings re Yucca Mountain Environmental Report Supplement

***Maryland on September 3 and Nevada on September 15***

The U.S. Nuclear Regulatory Commission staff will hold a series of public meetings at agency headquarters in Rockville, Maryland and in Nevada to seek public comment on a supplement to the U.S. Department of Energy's (DOE's) Environmental Impact Statement (EIS) for a proposed geologic high-level nuclear waste repository at Yucca Mountain, Nevada.

**Submitting Public Comments**

The draft supplement, which evaluates the proposed repository's potential impacts on groundwater and from surface discharges of groundwater, was released on August 13, 2015. The public comment period began with publication of a notice at 80 *Federal Register* 50,875 (August 21, 2015). The public comment period ends on October 20, 2015.

On August 26, 2015, NRC staff held a public conference call to explain how to submit comments. Procedures for submitting comments are also explained in the *Federal Register* notice that was released on August 21, 2015.

**Public Meetings**

On September 3, 2015, NRC held the first public meeting to present the draft supplement's findings and accept public comments from 3:00 – 5:00 p.m. in the Commission Hearing Room at the agency's headquarters at 11555 Rockville Pike in Rockville, Maryland.

Two subsequent meetings will be held in Nevada. The first will take place on September 15, 2015 at the Embassy Suites Convention Center located at 3600 Paradise Road in Las Vegas. The second will be held on September 17, 2015 at the Amargosa Community Center located at 821 E. Amargosa Farm Road in Amargosa Valley. Both meetings will run from 7:00 – 9:00 p.m. PDT. NRC staff members will be available for an open house for one hour before each of the Nevada meetings to meet informally with members of the public.

On October 15, 2015, NRC staff will conduct a final public meeting by conference call from 2:00 – 4:00 p.m. EDT. Phone line information

will be posted on the Public Meetings Page of the NRC web site at www.nrc.gov.

*For additional information, please contact Dave McIntyre at (301) 415-8200.*

# DOE and NRC Host Advanced Reactor Workshop

On September 1-2, 2015, the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE) held a joint workshop on innovative reactor technologies in Bethesda, Maryland. The workshop explored options for increased efficiency, from both a technical and regulatory perspective, for safely developing and deploying advanced non-light water reactors.

The workshop, which was open to the public, was held at the Bethesda North Marriott that is located across from NRC headquarters. During the workshop, NRC and DOE staff discussed advanced nuclear reactor concepts with participants including reactor design vendors, electric utilities, public interest groups and other federal agencies. The discussions covered both near- and longer-term opportunities to test, demonstrate, and build prototype non-light water reactors while establishing appropriate licensing processes.

Workshop topics included:

- clarifying roles and responsibilities;
- reaching common understanding of terminology;
- outlining existing regulations, policies and guidance, as well as existing support for advanced reactor development; and,
- identifying potential challenges, information gaps and critical needs.

The workshop included presentations as well as structured and open discussions, using a facilitator. NRC and DOE staff expects that future workshops will build on these discussions.

*For additional information, please contact Scott Burnell of the NRC at (301) 415-8200.*

*(Continued from page 1)*

**Overview and Questions for Respondents**

The NRC is conducting this financial scoping study to determine if financial planning requirements for decommissioning and end-of-life management for some radioactive byproduct material are necessary. The NRC is seeking stakeholder input and perspective on this action. Respondents are asked to consider the background material discussed in the *Federal Register* notice when preparing their comments and insights. In addition, the NRC staff requests that respondents consider the following topical areas, and specifically the eight listed questions, that an NRC staff internal working group has identified.

**Consideration of Feasible Disposition Paths Other Than Disposal** According to NRC, disposition pathways other than disposal may be available and appropriate for sources, including reuse and recycling. Factors important for financial planning for these disposition pathways may be significantly different from those associated with disposal.

> Question 1: What disposition pathways are available to various licensee types beyond the traditional disposal pathway and should be considered in any potential new financial planning requirements?

**Establishing Funding Requirements for Dispositioning** NRC believes that establishing appropriate and equitable funding requirements sufficient for the disposition of certain individual sources is a challenge. Funding requirements must account for interim storage, conditioning, and packaging for transportation and disposal, as well as the transportation and disposal costs. NRC states that, in many cases, it is difficult to establish accurate values for each of these elements even with current information. Furthermore, NRC contends that there will be uncertainty regarding the adequacy of financial surety requirements in the future. Some sealed sources may have a service life of decades; therefore, a financial surety established today may not be adequate 20 to 30 years from now. NRC states that, at present, it may be easier to articulate an appropriate decommissioning funding plan or fixed dollar amount for Category 3 and 4 sources than for Category 1 and 2 sources because disposal access is more readily available for smaller sources.

> Question 2: What should be the primary considerations in establishing and imposing appropriate and equitable financial planning requirements on radioactive sealed sources?

**Timeliness in Declaring Disused Sources** Currently there is no NRC requirement for licensees to declare licensed sources as disused, although they are encouraged to do so. Financial planning requirements may establish an appropriate time (*i.e.*, two years) for applying requirements to sources considered disused by the licensee.

> Question 3: Should licensees be required to specifically declare disused sources? If so, how long after a source is disused must a licensee declare it as disused?

**Source Characteristics** According to NRC, financial planning must also account for source characteristics such as type of radioactive material, half-life, physical form, and remaining useful life. For relatively short half-life byproduct material, there is a need to evaluate the equitable application (and removal) of financial planning requirements for sources that may decay below the quantities of concern.

> Question 4: How should source characteristics be factored into establishing equitable financial planning requirements for end-of-life management?

**Compatibility With Agreement State Requirements** NRC acknowledges that any agency rulemaking must involve Agreement State regulators in determining the compatibility category assigned to a potential rule.

> Question 5: If NRC rulemaking is initiated as a result of this scoping study, how should NRC engage with and consider the impact on Agreement States? What would be the primary considerations in establishing compatibility levels for rule requirements?

**Applicability to General Licensees** NRC states that the applicability of financial planning requirements to licensees possessing generally licensed sealed sources should be considered. According to the 2014 report, there are at least a few licensees who possess generally licensed sources in quantities of concern.

> Question 6: When necessary, what mechanism should be used to administer financial planning requirements on general licensees?

**Characteristics and Qualifications of the Fund Custodian** Another consideration in establishing financial planning requirements, as identified by NRC, is how to determine the proper custodian for the fund that is to be earmarked for disposition.

> Question 7: What are the ideal characteristics and qualifications for an entity that will act as the custodian for any funds earmarked for

long-term management of disused sealed sources? For instance, what characteristics and qualifications should be taken into consideration regarding the custodian's relationship to the licensee (*e.g.*, the ability of the custodian to access the funds, or the custodian's independent financial viability)? In the event that there is a residual amount remaining in the fund following payment of disposition cost, what should be the fate of the residual funds?

**Tracking** NRC states that, for licensees possessing Category 1 or 2 radioactive sealed sources, regulators can access the National Source Tracking System (NSTS) to determine the number and type of licensees that would be potentially impacted by end-of-life financial assurance requirements. For new sources, source manufacturers or suppliers could be contacted to determine how they would be impacted by any new requirements. However, it may be more difficult to implement requirements and ensure accountability regarding sources that are not tracked in the NSTS (*e.g.*, Category 3 and lower).

Question 8: What are the key characteristics of a tracking system for byproduct material (sealed sources) subject to financial planning requirements? Which of these characteristics are not available as part of the NSTS?

**Path Forward and Next Steps**

In the *Federal Register* notice, NRC states that the topical areas and questions that agency staff has identified are consequential, but not exhaustive. "Varied perspectives from a broad range of stakeholders will be beneficial," states NRC. "Further, NRC staff anticipates that stakeholders will identify and provide their perspectives on additional issues they identify that are relevant to financial planning for management of disused or unwanted radioactive byproduct material."

Based on the results of the expanded byproduct material financial scoping study, NRC staff will compile a report with study results and recommendations for next steps to be provided to the Commission in the spring of 2016. NRC staff recommendations could include options such as limited rulemaking, broad scope rulemaking, advance notice of proposed rulemaking, development of guidance, issuance of a generic communication, or no action.

**Topic-Specific Public Meeting**

The NRC will convene a topic-specific public meeting at the agency's headquarters in Rockville, Maryland in the early fall of 2015. The public meeting will include a webinar and teleconference for the convenience of participants who find attendance inconvenient or prohibitive. A meeting notice will be posted to the NRC's public web site at http://meetings.nrc.gov/pmns/mtg no fewer than 10 days prior to the meeting providing the date, time, and venue of the meeting, as well as remote participation instructions. A transcript of the public meeting will be made publicly available in ADAMS, as well as posted on the federal rulemaking web site at http://www.regulations.gov under Docket ID NRC–2015–0182. The federal rulemaking web site allows interested stakeholders to receive alerts when changes or additions occur in a docket folder. To subscribe, do the following:

1. navigate to the docket folder NRC–2015–0182;
2. click the ''Email Alert'' link; and,
3. enter your email address and select how frequently you would like to receive emails (i.e., daily, weekly, or monthly).

The NRC staff will use the information gathered from the public meeting to supplement information gathered in response to the August 3 *Federal Register* notice and other sources to prepare a report on byproduct material financial scoping study for the Commission, which will

include the NRC staff's recommendations for next steps.

**Obtaining Information**

Please refer to Docket ID NRC–2015–0182 when contacting the NRC about the availability of information for this action. Interested stakeholders may obtain publicly available information related to this action by any of the following methods:

Federal Rulemaking Web Site: Go to http://www.regulations.gov and search for Docket ID NRC–2015–0182.

NRC's Agency-Wide Documents Access and Management System (ADAMS): Interested stakeholders may obtain publicly available documents online in the ADAMS Public Documents collection at http://www.nrc.gov/reading-rm/adams.html. To begin the search, select ''ADAMS Public Documents'' and then select ''Begin Web-based ADAMS Search.'' For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff via phone at (800) 397–4209 or (301) 415–4737 or via email at pdr.resource@nrc.gov.

**Submitting Comments**

Interested stakeholders may submit comments by any of the following methods:

Federal Rulemaking Web Site: Go to http://www.regulations.gov and search for Docket ID NRC–2015–0182. Address questions about NRC dockets to Carol Gallagher at (301 415–3463 or at Carol.Gallagher@nrc.gov.

Mail Comments: Mail comments to Cindy Bladey, Office of Administration, Mail Stop: OWFN–12–H08, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001.

Stakeholder are requested to please include Docket ID NRC–2015–0182 in the subject line of any comment submissions. The NRC cautions stakeholders not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. The NRC posts all comment submissions at http://www.regulations.gov, as well as enters the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

**Background**

The issue of adequacy of financial mechanisms for end-of-life management of disused Category 1 and 2 sealed sources was raised in the 2006 report by the Radiation Source Protection and Security Task Force (Task Force), which can be found at http://www.nrc.gov/security/byproduct/task-force.html). The Energy Policy Act of 2005 created the Task Force, which is comprised of 14 federal agencies and the Organization of Agreement States (OAS), to evaluate the status of various factors affecting the security of Category 1 and 2 sealed sources. In Recommendation 9–2 of the 2006 report, the Task Force recommended that the NRC ''evaluate the financial assurance required for possession of Category 1 and 2 radioactive sources to assure that funding is available for final disposition of the sources.''

Similarly, in the NRC staff's 2007 ''Strategic Assessment of the U.S. Nuclear Regulatory Commission's Low- Level Radioactive Waste Regulatory Program'' (Strategic Assessment), financial assurance scoping for byproduct material was identified as one of seven high priorities. (See ADAMS Accession No. ML071350291.) The Strategic Assessment identified the issue more broadly than the Task Force, whose charter was to focus on security related to Category 1 and 2 sources. In fact, the NRC staff proposed to also review the ''adequacy of financial assurance requirements to anticipate the ultimate costs of disposal of or dispositioning radioactive sources not addressed by the Task Force.''

Two recent drivers that prompted the NRC staff to initiate this financial scoping study were specific recommendations related to financial planning in the 2014 Task Force report (ADAMS Accession No. ML14219A642) and recommendations related to financial assurance in a March 2014 report issued by the LLW Forum's DSWG (ADAMS Accession No. ML14084A394).

During a September 18, 2014 Commission briefing on management of low-level radioactive waste, high-level radioactive waste and spent nuclear fuel, the Director of the Division of Waste Management and Environmental Protection (now the Division of Decommissioning, Uranium Recovery, and Waste Programs) stressed the timeliness of a scoping study related to financial requirements for end-of-life management of byproduct material, in particular disused radioactive sealed sources (ADAMS Accession No. ML14265A396), stating as follows:

> The 2007 programmatic assessment [i.e., the Strategic Assessment of the U.S. Nuclear Regulatory Commission's Low-Level Radioactive Waste Regulatory Program] included an activity to perform a scoping study of the need to revise or expand byproduct material financial assurance. Resource constraints unfortunately delayed that initiative. However, it has become more important and timely based upon the recommendation of the 2014 Radiation Source Protection and Security Task Force report as well as a report prepared by the Low-Level Waste Forum Task Group on disused cell [sealed] sources. And the staff now intends to focus on this important and emerging issue.

In a Staff Requirements Memorandum (SRM) dated September 24, 2014, in response to the briefing, the Commission stated that ''[t]he staff should provide the Commission with the results of the byproduct financial scoping study and provide recommendations on next steps.'' (See ADAMS Accession No. ML14267A365.) The staff received subsequent administrative instructions to report the results of the scoping study and recommendations by April 13, 2015. In preparing a response to the Commission in compliance with the first directive in the SRM, the staff determined that the byproduct material financial scoping study would benefit from much broader stakeholder involvement than was originally envisioned. NRC staff identifies the four primary reasons for the expanded involvement as follows:

1. Recent reports (the 2014 Task Force report and the 2014 DSWG report) addressing this topic have been generated by a limited group of federal and state stakeholders. The views and perspectives of important external stakeholders such as industry, users groups, and current licensees are needed to fully inform the scoping study and any subsequent NRC staff's recommendations.

2. Currently, there are a number of ongoing national initiatives and activities that could add perspective to the staff's consideration of options and recommendations to address byproduct material financial planning.

3. Financial planning associated with end-of-life management of byproduct material has also garnered the attention of the international community. The financial scoping study would benefit from consideration of international experience and perspectives.

4. An NRC internal working group has identified a number of topical areas that are relevant to financial planning. Broader stakeholder input would assist the NRC staff in analyzing these topical areas and potentially identifying other financial planning issues.

**Recommendations Warranting Broader Review** The NRC staff believes that the following recommendations warrant broader review in the scoping study and asks that respondents consider them when developing their comments.

- Summary recommendations from the Report by the Interagency Working Group (IWG) on Financial Assurance for Disposition of Category 1, 2, and 3 Radioactive Sealed Sources (ADAMS Accession No. ML100050105): To address the financial assurance concerns raised in the 2006 Task Force Report, an Interagency Working Group (IWG) on Financial Assurance for Disposition of Category 1, 2, and 3 Radioactive Sealed Sources was established in December 2008. The IWG was tasked with proposing a comprehensive list of viable financial assurance solutions to increase the likelihood that Category 1, 2, and 3 radioactive sealed sources will be disposed of in a safe, appropriate and timely manner. The IWG identified three main areas of concern including: (1) lack of disposal capacity for sources, (2) an inadequate supply of containers for transportation of these sources for final disposition/disposal, and (3) storage of these sources by licensees for extended periods of time.

  The IWG recognized that certain financial assurance options might mitigate, but not resolve, these concerns. Possible options considered in the evaluation included:

  1. Develop risk-based financial assurance requirements and lower financial assurance thresholds in § 30.35 of Title 10 of the *Code of Federal Regulations* to capture all Category 1, 2, and 3 radioactive sealed sources.
  2. Assess a universal surcharge on all licensees to cover the cost of disposal.
  3. Assess an up-front surcharge on all new Category 1, 2, and 3 sources to cover the entire anticipated cost of packaging and disposal.

  The IWG report has recently been made publicly available. The recommendations from the IWG report were also articulated in the 2010 Radiation Source Protection and Security Task Force report. (See ADAMS Accession No. ML102230141.)

- Recommendation 2 of the 2014 Task Force Report: According to NRC, the 2014 Task Force report highlighted that significant progress has been made to address the commercial sealed source management and disposal challenges identified in the 2006 and 2010 Task Force reports. Disposal options for many commercial Class A, B, and C sealed sources are now available to low-level radioactive waste generators in all 50 states, including the 36 states which had been without such an option when the 2010 Task Force report was published. The 2014 Task Force report also found that progress has been made in addressing ongoing challenges regarding both the transportation and disposal of the highest activity sealed sources. The Task Force noted that although disposal options for many sealed sources are now available, there are currently few incentives for generators to dispose of their disused sealed sources in a timely fashion. In addition, commercial disposal options are still unavailable for many Category 1 and 2 sources, and challenges remain regarding the availability of certified Type B shipping containers required for transport of these sources. Consequently, the 2014 Task Force report contains a specific recommendation, Recommendation 2, related to financial planning that states as follows:

  > The Task Force recommends that the NRC evaluate the need for sealed source licensees to address the eventual disposition/disposal costs of Category 1 and 2 quantities of radioactive sources through source disposition/disposal financial planning or other mechanisms. Disposition costs should include the cost of packaging, transport, and disposal (when available) of these sources.

- Recommendations from the 2014 DSWG Report: The 2014 report from the LLW Forum's DSWG contained a recommendation that the NRC develop financial assurance requirements for sealed source radionuclides of concern for all categories. The report suggested that the requirement apply to general licensees as well as specific licensees. The vast majority of licensees possessing Category 1 and 2 sources are specific licensees. However, some sources in the lower categories (Category 3–5) are possessed under a general license. The DSWG offered several recommendations directly related to financial assurance including:

    1. To encourage timely disposal, the NRC should develop robust financial assurance requirements for all licensees with sources that pose a threat to national security (Categories 1 through 3). The financial assurance requirements should be adequate to cover the entire cost of packaging, transport, and disposal.

    2. The existing NRC-Conference of Radiation Control Program Directors (CRCPD) program should be adequately funded to address orphaned and abandoned sources throughout the United States. Individual states should retain the ability to operate their own orphaned and abandoned source programs, such as is currently done in Texas.

    3. Federal research agencies should require applicants to budget for the full life-cycle cost of use and disposition in grant applications.

**Relevant National Activities Related to Byproduct Material Financial Planning** In recent years, several important activities have ensued related to byproduct material financial assurance. The NRC invites public comment and perspective as to the impact that these activities, individually or in combination, may have on financial planning related to end-of-life management of radioactive sealed sources (or other byproduct material) including:

1. The NRC staff published a revised Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP), which increased the recommended activity limit for Cs-137 disposal from 30 curies to 130 curies allowing disposal of more Cs-137 sources. (See ADAMS Accession No. ML14169A380.)

2. The Waste Control Specialists disposal facility in Texas was authorized to collect and dispose of sealed sources on April 25, 2012.

3. The Office of Radiological Security (ORS), formerly Global Threat Reduction Initiative (GTRI), of the U.S. Department of Energy/ National Nuclear Security Administration (DOE/NNSA) continued to offer federally funded security upgrades based on best practices. (See http://nnsa.energy.gov/ mediaroom/factsheets/reducingthreats.) When requested by a licensee, the ORS works to assess existing security conditions, provide recommendations on security enhancements, and (when warranted) fund the procurement and installation of jointly agreed-upon security best practices. These voluntary security enhancements complement and do not replace the NRC's current requirements. Also, some sealed sources are recovered through ORS' Offsite Source Recovery Project (OSRP).

4. The Source Collection and Threat Reduction Program (SCATR), administered by the CRCPD, was created in early 2007 to provide sealed source licensees in states which do not have access to a low-level radioactive waste disposal facility an opportunity to dispose of certain unwanted radioactive sealed sources. (See http:// www.crcpd.org/StateServices/ SCATR.aspx.) SCATR is funded through a

grant provided by the DOE/NNSA.

5. New Type B packages were available for use beginning in 2014. The DOE/NNSA's ORS procured vendor services for the design, development, testing, and certification of two Type B packages to support the recovery and transportation of Category 1 and Category 2 sources commonly used in irradiators and cancer treatment devices. The new containers will enable shipment of nearly 100 percent of all commercially used devices containing Cs-137 and cobalt-60 (Co-60).

6. The CRCPD is currently convening a working group to consider revising Agreement State financial planning requirements, to include restructuring the criteria used to determine what radioactive material requires financial surety to ensure proper end-of-life management, particularly (but not exclusively) Category 1 and 2 sealed sources.

**Recent International Activities Related to Byproduct Financial Planning** There are also recent activities in the international community related to byproduct material financial planning. In November 2014, IAEA Nuclear Energy Series No. NW–T–1.3 was released, which summarizes the reviewed information distributed in previous IAEA publications. It also provides an up-to-date, overall picture of the management of disused sealed radioactive sources based upon the current status and trends in this field. Section 5.5 of the publication addresses aspects of financing including cost distribution, cost uncertainty, and financial implications of the lack of availability of an ownership transfer path.

In addition, the Joint Convention on the Safety of Spent Nuclear Fuel and on the Safety of Radioactive Waste Management requires that contracting parties address aspects of end-of-life source management.

NRC invites respondents with insight into relevant international initiatives to provide their perspectives regarding international best practices or other experiences that the NRC staff should consider.

*For additional information, please contact Ryan Whited at (301) 415–1154 or at Ryan.Whited@nrc.gov or James Shaffner at (301) 415–5496 or at James.Shaffner@nrc.gov, both of whom are staff in the NRC's Office of Nuclear Material Safety and Safeguards.*

# Comment Period Reopened re Part 61 Rulemaking Initiative

***Comments Now Due September 21, 2015***

On August 27, 2015, the U.S. Nuclear Regulatory Commission (NRC) published a *Federal Register* notice announcing the reopening of the comment period for the proposed rule that would amend 10 CFR Parts 20 and 61 and associated draft technical guidance document "to allow more time for members of the public to develop and submit their comments." The comment period now expires on September 21, 2015.

A panel of state and industry representatives has been scheduled for the fall 2015 Low-Level Radioactive Waste Forum (LLW Forum) meeting to discuss stakeholder feedback on the Part 61 rulemaking initiative. The meeting will be held at the Embassy Suites Hotel in downtown Chicago, Illinois on October 22-23, 2015. (See related story, this issue.) Additional information about the meeting—including the meeting bulletin (with information for making hotel reservations), registration form, and draft agenda—can be found on the bottom of the Home Page at www.llwforum.org.

Prior to the reopening of the comment period, approximately 80 comments were submitted to

NRC on the Part 61 rulemaking initiative, of which approximately 30 were submitted on behalf of stakeholder entities and approximately 50 were submitted from individuals. The LLW Forum's Part 61 Working Group (P61WG)—which is comprised of representatives from the four sited-states of South Carolina, Texas, Utah and Washington, as well as a representative from the Commonwealth of Pennsylvania—submitted comments to the NRC on July 22, 2015. (See related story, this issue.)

*Links to the stakeholder entity comments on the Part 61 rulemaking initiative, as well as a list of ML numbers for individual comment submissions, can be found on the P61WG web site at http://part-61.org/resources/.*

**Submitting Comments**

The methods for submitting comments on the proposed rule are different from the methods for submitting comments on the draft guidance.

**Proposed Rule** Public comments on the proposed rule may be submitted using any of the following methods:

- via the federal government's rulemaking web site at www.regulations.gov using Docket ID NRC-2011-0012;
- via facsimile to (301) 415-1101;
- via email to Rulemaking.Comments@nrc.gov;
- via mail to Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, ATTN: Rulemaking and Adjudications Staff; or,
- via hand-delivery to 11555 Rockville Pike, Rockville, Maryland 20852 between 7:30 a.m. to 4:15 p.m. EDT on federal workdays.

**Draft Guidance** Public comments on the associated draft technical guidance may be submitted using either of the following methods:

- via the federal government's rulemaking web site at www.regulations.gov using Docket ID NRC-2015-0003; or,
- via mail to Cindy Bladey, Office of Administration, Mail Stop 3OWFN-12-H08, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

*Questions about NRC dockets should be addressed to Carol Gallagher at (301) 415-3463 or at Carol.Gallagher@nrc.gov.*

**Background**

NRC is proposing to amend its regulations that govern low-level radioactive waste disposal facilities to require new and revised site-specific technical analyses, to permit the development of site-specific criteria for low-level radioactive waste acceptance based on the results of these analyses, to facilitate implementation, and to better align the requirements with current health and safety standards. The proposed rule would affect low-level radioactive waste disposal licensees or license applicants that are regulated by the NRC or the Agreement States. (See *LLW Notes,* March/April 2015, pp. 1, 33-35.)

**Proposed Rule** Major provisions of the proposed rule include changes to:

- revise the existing technical analysis for protection of the general population to include a 1,000-year compliance period;
- add a new site-specific technical analysis for the protection of inadvertent intruders that would include a 1,000-year compliance period and a dose limit;
- add new analyses that would include a 10,000-year protective assurance period and annual dose minimization target;

- add a new analysis for certain long-lived low-level radioactive waste that would include a post-10,000-year performance period;
- add new analyses that would identify and describe the features of the design and site characteristics that provide defense-in-depth protections;
- add a new requirement to update the technical analyses at closure; and,
- add a new requirement to develop site-specific criteria for the future acceptance of low-level radioactive waste for disposal based on either the results of these technical analyses or the existing low-level radioactive waste classification requirements.

The proposed rule anticipates a need to dispose of large quantities of depleted uranium from newly licensed uranium enrichment facilities. "Depleted uranium actually becomes more radioactive as it decays over centuries, and the current regulations did not anticipate large quantities of it being disposed of commercially as Class A low-level waste (the least radioactive classification)," states NRC. "In addition, the industry anticipates blending some Class A waste with more-radioactive Class B and Class C wastes that currently lack a disposal path. Blending could create large quantities of Class A waste near the upper classification limit of radioactivity. The current regulations anticipated only a small amount of waste near the upper limit."

According to NRC, the proposed amendments would ensure that low-level radioactive waste streams that are significantly different from those considered during the development of the current regulations (i.e., depleted uranium and other unanalyzed waste streams) can be disposed of safely and meet the performance objectives for land disposal of low-level radioactive waste. NRC believes that the proposed amendments would also increase the use of site-specific information to ensure performance objectives are met that are designed to provide protection of public health and safety.

**Public Meetings** NRC conducted a series of public meetings on the agency's Part 61 rulemaking initiative including in Phoenix, Arizona on March 20, 2015; in Bethesda, Maryland on April 28, 2015; in Austin, Texas on May 12, 2015; in Columbia, South Carolina on June 2, 2015; in Richland, Washington on June 9, 2015; and, in Salt Lake City, Utah on June 10, 2015. A Commissioner briefing was also held at the NRC headquarters in Rockville, Maryland on June 25, 2015.

The purpose of the meetings was to initiate a discussion on the Part 61 technical rulemaking, answer questions and solicit comments from the public, and encourage the submittal of formal comments on the proposed rulemaking. These were Category 3 meetings in which public participation was actively sought to fully engage the public in a discussion of regulatory issues.

*The proposed rule to amend 10 CFR Parts 20 and 61, "Licensing Requirements for Land Disposal of Radioactive Waste," was published in the Federal Register (80 Federal Register 16,081) for public comment on March 26, 2015. NRC also published a notice of availability of associated guidance, "Guidance for Conducting Technical Analyses for Low-Level Radioactive Waste Disposal," for public comment in the Federal Register (80 Federal Register 15,930) for public comment on March 26, 2015. Links to both documents can be found on the LLW Forum's Part 61 Working Group (P61WG) web site at www.part-61.org.*

*For additional information, please contact either Gary Comfort or Stephen Dembek of the NRC's Low Level Waste Branch in the Division of Decommissioning, Uranium Recovery, and Waste Programs of the Office of Nuclear Material Safety and Safeguards. Gary may be reached at (301) 415-8106 or at Gary.Comfort@nrc.gov. Stephen may be reached at (301) 415-2342 or at Stephen.Dembek@nrc.gov.*

# NRC Holds Commissioner Briefing on Greater-than-Class C Waste

On August 13, 2015, the U.S. Nuclear Regulatory Commission held a public briefing of the Commissioners on the current regulatory environment and challenges for the disposal of Greater-than-Class C (GTCC) low-level radioactive waste.

The briefing, which began at 9:00 a.m. EDT, was held in the Commissioners' Conference Room on the first floor at the agency's headquarters in Bethesda, Maryland.

*The slides from the August 13 Commissioner briefing on GTCC are posted at http://www.nrc.gov/reading-rm/doc-collections/commission/slides/2015/20150813/.*

**Agenda**

The following is the agenda from the August 13 Commissioners' briefing on GTCC:

Panel One: External Stakeholders

- Janet Schlueter—Director, Fuel and Materials Safety, Nuclear Energy Institute (topic: industry views on GTCC waste disposal)
- Thomas Kalinowski—Vice President, DW James Consulting, LLC
  (topic: low-level waste streams from nuclear power plants, including GTCC waste streams)
- Scott Kirk—Vice President, Licensing and Regulatory Affairs, Waste Control Specialists
  (topic: low-level radioactive waste disposal site interest in accepting all GTCC low-level radioactive waste)
- Arjun Makhijan—President, Institute for Energy and Environmental Research
  (topic: public interest perspective on disposing of GTCC waste)
- Commission questions and answers
- *break*

Panel Two: Government

- Frank Marcinowski—Deputy Assistant Secretary for Waste Management, Office of Environmental Management, U.S. Department of Energy (DOE)
  (topic: disposal of GTCC waste)
- Charles Maguire—Director, Radioactive Materials Division, Texas Commission on Environmental Quality (TCEQ)
  (topic: Texas consideration of disposal of GTTC low-level radioactive waste)
- Michael Weber—Deputy Executive Director for Operations for Materials, Waste, Research, State, Tribal, and Compliance Programs, NRC; Catherine Haney—Director, Office of Nuclear Material Safety and Safeguards (NMSS), NRC; and, Larry W. Camper—Director, Division of Decommissioning, Uranium Recovery and Waste Programs, NMSS, NRC
  (topics: historical perspective, policy issues, challenges)
- Commission questions and answers
- discussion and wrap-up

**Background**

The Low-Level Radioactive Waste Policy Amendments Act of 1985 (Amendments Act) states that NRC licensee generated GTCC waste "shall be disposed of in a facility licensed by the [NRC]." In 1989, the NRC promulgated a regulation specifying that GTCC waste must be

disposed of in a geologic repository licensed by the NRC unless the Commission approves an alternative proposal. In September 2014, the Commission directed the staff to provide an historical perspective on GTCC waste disposal in Staff Requirements Memorandum (SRM)-M140918, "Briefing on Management of Low-Level Waste, High-Level Waste, and Spent Nuclear Fuel."

On January 30, 2015, TCEQ sent a letter to the NRC requesting responses to questions concerning the state's authority to license a disposal cell for GTCC, GTCC-like, and TRU waste. Thereafter, the staff conducted an analysis of Texas' authority to license and regulate the disposal of GTCC, GTCC-like and TRU waste in order to answer Texas' inquiry. In SECY-15-0094, dated July 17, 2015, NRC staff developed three options, identifying and evaluating the strengths and challenges for each of the options. (See related story, this issue.) Based on the results of the staff's analysis, the staff recommended proceeding with Option 2—i.e., NRC would allow the State of Texas to license and regulate the disposal of GTCC waste which may be co-mingled or co-located with GTCC-like and TRU waste under Commission approval pursuant to 10 CFR § 61.55(a)(2)(iv) and the NRC staff would pursue a rulemaking to address TRU waste disposal in Part 61.

*SECY-15-0094 can be found in the NRC's Agency-Wide Documents Access and Management System (ADAMS) under Accession No. ML15162A807. TCEQ's January 30, 2015 letter can be found in ADAMS under Accession No. ML15034A174.*

*For additional information, please contact Melanie Wong of the NRC at Melanie.Wong@nrc.gov or at (301) 415-2432.*

# License Renewals Continue to Move Forward

The U.S. Nuclear Regulatory Commission (NRC) continues to process license renewal applications from various nuclear power plant operators. In that regard, the agency recently took the following actions:

- On July 1, 2015, NRC announced its intention to develop and publish an Environmental Impact Statement (EIS) for the proposed license renewal of the Diablo Canyon Nuclear Power Plant, Units 1 and 2, and is seeking public comment on issues to be covered by the report. NRC staff subsequently conducted two public meetings in San Luis Obispo on August 5, 2015 to describe the EIS process and receive public comment on the scope of the report. Comments may also be submitted in writing through August 31, 2015. Pacific Gas and Electric Co. (PG&E) submitted its license renewal application for Diablo Canyon on November 23, 2009, seeking to extend the licenses for an additional 20 years beyond the current expiration dates of November 2, 2024 for Unit 1 and August 26, 2025 for Unit 2. The NRC conducted a public "scoping" process for an EIS in early 2010. However, in May 2010, the NRC suspended its review of the application at PG&E's request. The NRC staff has decided to resume its review and re-open the scoping process and proceed with developing the EIS. The August 5, 2015 public meetings were held at the Courtyard by Marriott San Luis Obispo. The first session ran from 1:30 - 4:30 p.m., and the second from 7:00 – 10:00 p.m. These meetings were transcribed. NRC staff was also available to meet informally with members of the public for an hour before each session. Comments or information provided to the staff outside of the public meetings will not be included in the docket. *For additional information, please*

*contact Scott Burnell of the NRC at (301) 415-8200.*

- On July 10, 2015, NRC announced that staff had issued its final Safety Evaluation Report (SER) for the proposed renewal of operating licenses for the Byron and Braidwood nuclear power plants in Illinois. The report concluded there are no technical issues to preclude license renewal for an additional 20 years of operation. Byron's two pressurized-water reactors are located approximately 17 miles southwest of Rockford, Illinois. Braidwood's two pressurized-water reactors are located approximately 20 miles southwest of Joliet, Illinois. Exelon Generation Company submitted an application in May 2013 to renew all four reactors' licenses for an additional 20 years. If approved, Byron Unit 1's renewed license would expire on October 31, 2044, and Byron Unit 2's renewed license would expire on November 6, 2046. If approved, Braidwood Unit 1's renewed license would expire on October 17, 2046, and Braidwood Unit 2's renewed license would expire on December 18, 2047. The SER documents the results of the NRC staff's review of the license renewal application and site audit of Byron's and Braidwood's aging-management programs to address the safety of plant operations during the period of extended operation. Overall, the results show that Exelon has identified actions to manage the effects of aging in the appropriate systems, structures and components of the plant, and that their functions will be maintained during the period of extended operation. Issuing the final SER is a significant milestone in the license renewal review process. This process proceeds along two tracks—one for review of safety issues and another for environmental issues. The staff published Byron's draft Supplemental Environmental Impact Statement (SEIS) for public comment in December 2014. The staff published Braidwood's draft SEIS for public comment in March 2015. NRC expects to publish the final SEIS for both plants later this year. The SER and the license renewal application have been provided to the Advisory Committee on Reactor Safeguards, an independent body of experts that advises the Commission on reactor safety matters. The committee is scheduled to discuss the SER during its September meeting and then submit its recommendation on license renewal to the Commission. Documents related to the Byron and Braidwood license renewal application, including the SER, as well as information about the license renewal process, are located on the NRC's website. *For additional information, please contact Scott Burnell of the NRC at (301) 415-8200.*

- On July 23, 2015, NRC announced that the agency had published its final report detailing the environmental impacts of renewing the operating licenses of the Byron Station nuclear power plant in Illinois. The Supplemental Environmental Impact Statement (SEIS) contains the NRC staff's conclusion that the impacts would not preclude renewing the plant's licenses for an additional 20 years. Byron Station has two pressurized water reactors, located in Byron, Illinois—approximately 17 miles southwest of Rockford. Unit 1 is currently licensed to operate through October 31, 2024, and Unit 2 through November 6, 2026. The operator, Exelon Generation Company, submitted its renewal application on May 29, 2013. The NRC published its final safety evaluation report, detailing the staff's technical review of the application, earlier in July 2015. The SEIS is Supplement 54 to NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants. It is now available on the NRC's website, along with the Byron station license renewal application and general information about reactor license renewal. The NRC published a draft version of the SEIS in December 2014 and held two public meetings near the plant in February 2015 to receive public comment. The final

report includes the staff's responses to the comments. *For additional information, please contact David McIntyre of the NRC at (301) 415-8200.*

- On July 30, 2015, NRC announced that the agency had published its final report detailing the environmental impacts of renewing the operating license of the Seabrook Station nuclear power plant in New Hampshire. The Supplemental Environmental Impact Statement (SEIS) contains the NRC staff's conclusion that the impacts would not preclude renewing the plant's license for an additional 20 years. Seabrook Station is a pressurized water reactor located about 13 miles south of Portsmouth, New Hampshire. It is currently licensed to operate through March 15, 2030. The operator, NextEra Energy Seabrook LLC, submitted its renewal application on May 25, 2010. The SEIS is Supplement 46 to NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants. It is now available on the NRC's website, along with the Seabrook Station license renewal application and general information about reactor license renewals. The NRC published a draft version of the SEIS in October 2011 and a supplement to the draft in May 2013 for public comment. The final report includes the staff's responses to the comments. *For additional information, please contact David McIntyre of the NRC at (301) 415-8200.*

*For a complete listing of completed renewal applications and those currently under review, go to http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html.*

# NRC Amends FY 2015 Licensing, Inspection and Annual Fees Rule

The U.S. Nuclear Regulatory Commission has amended its regulations to reflect the licensing, inspection and annual fees it will charge its applicants and licensees for fiscal year (FY) 2015.

The final fee rule, published in the *Federal Register* on June 30 2015, includes fees required by law to recover approximately 90 percent of the agency's budget authority.

**Overview**

The final fee rule includes several changes from the NRC's final fees for FY 2014. The hourly rate decreases 4 percent, from $279 to $268 for FY 2015, and fees charged under 10 CFR Part 170 have been updated accordingly. Annual fees for FY 2015 decrease by 3.8 percent over last year for operating reactors, 0.4 percent for spent fuel storage/reactor decommissioning, and 1.2 percent for research and test reactors.

The NRC estimates the FY 2015 annual fees will be paid by licensees of 99 operating commercial power reactors, 4 research and test reactors, 23 spent nuclear fuel storage and decommissioning reactor facilities, 10 fuel cycle facilities, 12 uranium recovery facilities and approximately 3,000 nuclear materials licensees.

**Background**

For FY 2015, the NRC is required to collect approximately 90 percent of its appropriation, or $895.5 million, through fees assessed to licensees. After accounting for billing adjustments, an estimated $888.7 million is to be recovered through fees. Approximately 36 percent of the fees will recover the cost of specific services to applicants and licensees under 10 CFR Part 170.

The remaining 64 percent will be billed as annual fees under 10 CFR Part 171. By law, the NRC is required to collect all fees by September 30, 2015. This money goes to the U.S. Treasury's general fund.

A proposed rule was originally published for public comment on March 23, 2015.

*For additional information, please contact Ivonne Couret of the NRC at (301) 415-8200.*

# Victor McCree Selected as NRC's Next Executive Director for Operations

By press release dated August 12, 2015, the U.S. Nuclear Regulatory Commission announced the selection by the Commission of Victor McCree, the Regional Administrator in the NRC's Atlanta-based office, as the agency's next Executive Director for Operations. This is the highest-ranking career position in the agency and one responsible for overseeing the agency's regulatory programs. McCree succeeds Mark Satorius, who will retire on December 30, 2015 after serving with the NRC since 1989. McCree is expected to assume his new responsibilities beginning September 27, 2015.

"Victor McCree is the right choice to help the agency as it addresses the challenges of a changing regulatory environment and the need to more effectively apply limited resources while still ensuring the health and safety of the public," said NRC Chair Stephen Burns. "His leadership experience in heading the NRC's largest regional office (Region II) will be a tremendous asset."

McCree joined the NRC in 1988 as an inspector in the Office of Nuclear Reactor Regulation and held progressively more responsible jobs in that office and later in the office of then-NRC Chair Shirley Ann Jackson.

"The agency is in the midst of change, and I am looking forward to helping ensure that our central mission of protecting people and the environment is maintained during this transformation," said McCree. "Over the years, I have had the privilege of working closely with our excellent staff in both headquarters and the regions, and I am looking forward to building on those relationships as we move forward."

Assigned to Region II in Atlanta in 1989, McCree served as the Deputy Director and Director for both the Divisions of Reactor Safety and Reactor Projects. He became the Deputy Regional Administrator for operations in 2006, and was appointed to lead the region in 2010. The Region II office has a staff of more than 300 and is responsible for regulating 32 reactors in seven southeastern states as well as all fuel cycle facilities in the country. The region also oversees implementation of the construction inspection program at all new nuclear power plants and fuel facilities nationwide.

McCree, a native of Jackson, Mississippi, graduated from the Naval Academy in 1981 and holds an Executive Master of Business Administration degree from Georgia State University. Before joining the NRC, he was a nuclear qualified submarine officer in the Navy. He received the Presidential Meritorious Rank Award in 2007.

*For additional information, please contact Eliot Brenner of the U.S. Nuclear Regulatory Commission at (301) 415-8200.*

# To Obtain Federal Government Information

### by telephone

- DOE Public Affairs/Press Office ..... (202) 586-5806
- DOE Distribution Center ..... (202) 586-9642
- EPA Information Resources Center ..... (202) 260-5922
- GAO Document Room ..... (202) 512-6000
- Government Printing Office (to order entire *Federal Register* notices) ..... (202) 512-1800
- NRC Public Document Room ..... (202) 634-3273
- Legislative Resource Center (to order U.S. House of Representatives documents) ..... (202) 226-5200
- U.S. Senate Document Room ..... (202) 224-7860

### by internet

- NRC Reference Library (NRC regulations, technical reports, information digests, and regulatory guides)..... **www.nrc.gov**

- EPA Listserve Network • Contact Lockheed Martin EPA Technical Support at (800) 334-2405 or email (leave subject blank and type help in body of message)..... **listserver@unixmail.rtpnc.epa.gov**

- EPA • (for program information, publications, laws and regulations) ..... **www.epa.gov**

- U.S. Government Printing Office (GPO) (for the Congressional Record, *Federal Register*, congressional bills and other documents, and access to more than 70 government databases)..... **www.access.gpo.gov**

- GAO homepage (access to reports and testimony) ..... **www.gao.gov**

***To access a variety of documents through numerous links, visit the website for the LLW Forum, Inc. at www.llwforum.org***

# Acknowledgement and Disclaimer

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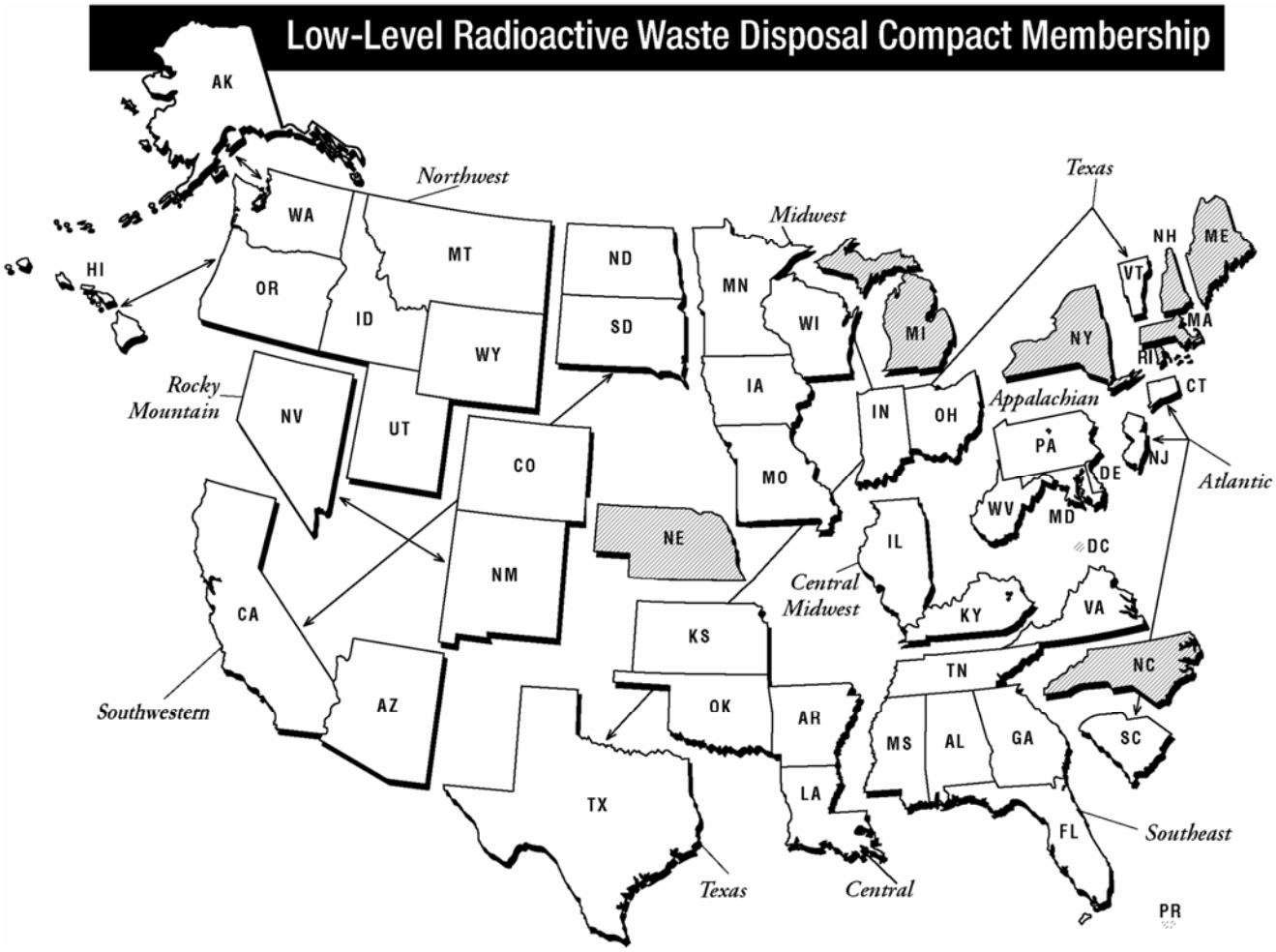


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Maryland
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**Atlantic Compact**
Connecticut
New Jersey
South Carolina

**Central Compact**
Arkansas
Kansas
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Oklahoma

**Central Midwest Compact**
Illinois
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**Northwest Compact**
Alaska
Hawaii
Idaho
Montana
Oregon
Utah
Washington
Wyoming

**Midwest Compact**
Indiana
Iowa
Minnesota
Missouri
Ohio
Wisconsin

**Rocky Mountain Compact**
Colorado
Nevada
New Mexico

*Northwest accepts Rocky Mountain waste as agreed between compacts*

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Florida
Georgia
Mississippi
Tennessee
Virginia

**Southwestern Compact**
Arizona
California
North Dakota
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