LLW notes

Volume 29, Number 1 January/February 2014

*U.S. Nuclear Regulatory Commission*

# 10 CFR Part 61 Staff Requirements Memorandum Released

On February 20, 2014, the U.S. Nuclear Regulatory Commission released a Staff Requirements Memorandum (SRM-SECY-13-0075) related to a proposed rule that would amend Part 61 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Licensing Requirements for Land Disposal of Radioactive Waste." In SRM-SECY-13-0075, dated February 12, 2014, the Commission approves publication of the proposed rule and the associated draft guidance for public comment, subject to listed comments and changes.

According to NRC staff, "Due to the breadth of the changes directed by the SRM, it will take the staff a significant amount of time to revise the proposed rule, supporting documents, and associated draft guidance before sending the package back to the Secretary of the Commission for signature and publication."

*A copy of SRM-SECY-13-0075 is available at http://www.nrc.gov/reading-rm/doc-collections/commission/srm/2013/2013-0075srm.pdf.*

**Commission Direction**

On February 12, 2014, the Commission approved publication of the proposed rule and draft guidance for public comment subject to, among other things, the following comments and changes:

- The proposed rule should be revised to include a regulatory compliance period of 1,000 years.
- The proposed rule should be published with a compatibility category "B" applied to the most significant provisions of the revised rule, including the Period of Compliance; the Protective Assurance Analysis Period and its analytical threshold, which, as it is approached, requires the applicant to propose remedial changes to the disposal site design, or impose inventory limits, or propose alternative methods of disposal; and the Waste Acceptance Criteria.

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**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.

Current members are allowed to distribute these written materials to a limited number of persons within their particular organization (e.g., compact commissioners, state employees, staff within a federal agency, employees in a commercial enterprise.) It has become clear, however, that there will be instances where members and subscribers wish to share LLW Forum materials with a broader audience of non-members.

This Copyright Policy is designed to provide a framework that balances the benefits of a broad sharing of information with the need to maintain control of published material.

1. LLW Forum, Inc., publications will include a statement that the material is copyrighted and may not be used without advance permission in writing from the LLW Forum.

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3. Persons may briefly summarize information reported in LLW Forum publications with general attribution (e.g., the LLW Forum reports that . . .) for distribution to other members of their organization or the public.

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5. Members and subscribers may with written approval from the LLW Forum's officers reproduce LLW Forum materials one time per year with complete attribution without incurring a fee.

6. If persons wish to reproduce LLW Forum materials, a fee will be assessed commensurate with the volume of material being reproduced and the number of recipients. The fee will be negotiated between the LLW Forum's Executive Director and the member and approved by the LLW Forum's officers.

***LLW Notes***
**Volume 29, Number 1 January/February 2014**
**Editors and Writers: Todd D. Lovinger and Cecilia Snyder and Sebastian Christian**
**Layout and Design: Rita Houskie, Central Interstate Low-Level Radioactive Waste Compact**

*LLW Notes* is published several times a year and is distributed to the Board of Directors of the Low-Level Radioactive Waste Forum, Inc. — an independent, non-profit corporation. Anyone — including compacts, states, federal agencies, private associations, companies, and others — may support and participate in the LLW Forum, Inc. by purchasing memberships and/or by contributing grants or gifts. For information on becoming a member or supporter, please go to our website at www.llwforum.org or contact Todd D. Lovinger — the LLW Forum, Inc.'s Executive Director — at (754) 779-7551.



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.

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LLW
FORUM, INC.

**Low-Level Radioactive Waste Forum, Inc.**
**2657 Bayview Drive**
**Ft. Lauderdale, FL 33306**
**(754) 779-7551**
**FAX (754) 223-7452**
**EMAIL llwforuminc@aol.com**
**INTERNET www.llwforum.org**

### 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 to Hold Spring 2014 Meeting in Austin

Interested stakeholders are encouraged to attend the spring 2014 meeting of the Low-Level Radioactive Waste Forum in Austin, Texas on March 17-18, 2014. The meeting is being co-sponsored by the Texas Commission on Environmental Quality (TCEQ) and Waste Control Specialists LLC (WCS).

The meeting will include an optional site tour of the WCS and URENCO USA facilities for interested meeting attendees on March 19, 2014.

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

**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 March 2014 LLW Forum meeting will be held at the Omni Hotel in downtown Austin, Texas on Monday, March 17, 2014, from 9:15 a.m. - 5:00 p.m., and Tuesday, March 18, 2014, from 9:00 a.m. - 1:00 p.m.

A limited block of 60 rooms has been reserved for for meeting attendees at the special, discounted rate of $120 (single rate) plus tax. To make a reservation, please call (512) 476-3700. *Please ask for the Low-Level Radioactive Waste Forum block.*

**Optional Site Tour**

Meeting attendees are invited to participate in an optional tour of the WCS and URENCO USA facilities from approximately 9:00 am – 3:00 pm on March 19, 2014. Persons participating in the site tour will have to travel to Andrews immediately following the conclusion of the LLW Forum meeting at 1:00 pm on March 18.

A hotel block has been set up for site tour participants at the Oakwood Suites Hotel in Andrews, Texas. To make a reservation at the discounted rate, please call the Oakwood Suites Hotel at (432) 355-4313. *Please ask for a room in the Low-Level Radioactive Waste Forum (LLW Forum) block.*

**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 to Farrah Court of the TCEQ 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.)

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

### *Disused Sources Working Group (DSWG)*

## Disused Sources Working Group to Release Report

The Low-Level Radioactive Waste Forum's (LLW Forum's) Disused Sources Working Group (DSWG or working group) will present its report on the management and disposition of disused sources that pose a threat to national security at the organization's spring meeting in Austin, Texas. *(See related story, this issue.)* This will represent the conclusion of the first phase of the project. Thereafter, subject to available funding, the working group will continue to meet with stakeholders to discuss the report's findings and begin addressing implementation of the recommendations.

At the request of the National Nuclear Security Administration/Global Threat Reduction Initiative (NNSA/GTRI), the LLW Forum—a national association of state, radioactive waste compacts, federal agencies, and industry representatives—formed the DSWG in September 2011 to develop recommendations for improving the management and disposition of disused sealed sources that pose a threat to national security.

The DSWG, which is comprised of eight Directors of the LLW Forum, solicited input from a broad range of stakeholders at 19 meetings over the last 30 months including, but not limited to, manufacturers; distributors; recyclers; brokers and processors; users; state and compact officials; federal agencies including the U.S. Department of Defense (DoD), U.S. Department of Energy (DOE), U.S. Nuclear Regulatory Commission, and NNSA/GTRI; the federal interagency Radiation Source Protection & Security Task Force (Task Force); organizations including the Conference of Radiation Control Program Directors (CRCPD), Organization of Agreement States (OAS) and Health Physics Society (HPS); and disposal facility operators.

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

## Low-Level Radioactive Waste Forum Meetings

### *Spring 2014 and Beyond*

The following information on future meetings of the Low-Level Radioactive Waste Forum is provided for planning purposes only. Please note that the information is subject to change.

*For the most up-to-date information, please see the LLW Forum's web site at www.llwforum.org.*

**2014 Meetings**

The State of Texas and Waste Control Specialists LLC (WCS) have agreed to co-host the spring 2014 meeting in Austin, Texas. The meeting will be held at the Omni Hotel in Austin, Texas on March 17-18, 2014. There will be an optional site tour of the WCS and URENCO USA facilities for interested attendees as well on March 19, 2013. *(See related story, this issue.)*

The Midwest Interstate Low-Level Radioactive Waste Compact Commission and the Rocky Mountain Low-Level Radioactive Waste Board

have agreed to co-host the fall 2014 meeting in Denver, Colorado. The meeting is scheduled to be held at the Embassy Suites Hotel in downtown Denver, Colorado on October 30-31, 2014.

**Search for Volunteer Hosts for 2015 Meetings**

The LLW Forum is currently seeking volunteers to host both the spring and fall 2015 meetings and those thereafter. Although it may seem far off, substantial lead-time is needed to locate appropriate facilities.

If your state or compact has not hosted a meeting in the past two years, we ask that you consider doing so. If necessary, we may be able to assist you in finding a co-host.

Non-state and non-compact entities are eligible to co-host LLW Forum meetings, so please let us know if your company or organization is interested in doing so.

*Anyone interested in potentially hosting or sponsoring a meeting should contact one of the officers or Todd D. Lovinger, the organization's Executive Director, at (754) 779-7551 or at LLWForumInc@aol.com.*

*Appalachian Compact/State of Maryland*

# Special Inspection Team Dispatched to Calvert Cliffs Nuclear Power Plant

On January 27, 2014, the U.S. Nuclear Regulatory Commission announced that the agency had initiated a Special Inspection at the Calvert Cliffs nuclear power plant in Lusby, Maryland. The inspection further reviewed an unplanned shutdown of both reactors at the site that occurred on January 21, 2014.

Comprised of three members, the inspection team began its work on January 27 at the plant, which is operated by Constellation Energy LLC. The review evaluated what happened during the event, including the response by plant operators and safety systems. The inspection also examined the event's causes and any related issues. It expanded on initial assessments performed by two NRC inspectors, one of whom is the Senior Resident Inspector assigned to the facility on a full-time basis. The Senior Resident reported to the plant when the reactors shut down.

"We want to gain a better understanding of the chain of events that caused both of the reactors to simultaneously shut down and equipment anomalies subsequent to the plant trips," said NRC Region I Administrator Bill Dean. "This inspection is designed to shed additional light on not only why the outages happened but how the plant operators handled them."

Nuclear power plants not only send power out to the electrical grid, they also take a certain amount of power in for operational purposes. During a winter storm on January 21, an electrical supply system that distributes some of this off-site power to the plant was temporarily interrupted. At this point, it appears that snow and ices affected a

ventilation louver filter, causing an electrical fault, or short-circuit. Breakers tripped, or opened, as designed to clear the fault, shutting down the electrical supply system.

Subsequently, several electric-powered plant systems and components shut down, including motors for moving control rods and circulating-water pumps for Unit 2, triggering an automatic plant shutdown. The electricity loss also caused the Unit 1 main turbine control circuit to malfunction, which led to the automatic shutdown of Unit 1.

Both of the pressurized-water reactors were safely taken out of service following the power interruption, and there were no impacts on public health and safety.

*For additional information, please contact Diane Screnci at (610) 337-5330 or Neil Sheehan at (610) 337-5331.*

*Northwest Compact/State of Utah*

# Energy*Solutions* Acquires Studsvik Assets and Technology

On February 12, 2014, Energy*Solutions* announced that it has reached an agreement to acquire Studsvik, Inc.'s Tennessee processing facilities and exclusive rights to its THOR technology in the commercial North America market and China. The agreement also includes Energy*Solutions'* acquisition of Studsvik's membership interests in Semprasafe, LLC—a joint venture with Energy*Solutions.*

"This acquisition and the buyout of Studsvik's interest in the Semprasafe joint venture will further strengthen our position as the market leader in low-level nuclear waste," said Energy*Solutions'* President and CEO David Lockwood. "With this transaction, we are expanding our range of products and services to offer our customers a complete solution—transportation, processing and disposal—for waste management."

Energy*Solutions* offers customers a full range of integrated services, including nuclear operations, characterization, decommissioning, decontamination, site closure, transportation, nuclear materials management, processing, recycling, and disposition of nuclear waste, and research and engineering services across the nuclear fuel cycle.

*For additional information, please contact Mark Walker at (801) 231-9194 or at mwalker@energysolutions.com.*

# Utah Radiation Control Board Holds Meetings

The Utah Radiation Control Board held meetings on January 14, 2014 and February 11, 2014. Both meetings were open to the public.

**January 2014 Meeting**

On January 14, 2014, the Board held a regularly scheduled meeting in Salt Lake City, Utah. The meeting—which was open to the public—began at 1:00 pm.

The following items, among others, were on the January 2014 meeting agenda:

I. Welcome

II. Approval of the Minutes from the November 12, 2013 Board Meeting

III. Radon Action Month
   a. National and Utah Poster Contest Winners Recognition
   b. Governor Herbert's Declaration
   c. Introduction of new Indoor Radon Program Coordinator

IV. Administrative Rulemaking
   a. Final Adoption of proposed changes to R313-14, Violations and Escalated Enforcement
   b. Final Adoption of proposed changes to R313-25, License Requirements for Land Disposal of Radioactive Waste - General Provisions
   c. Status of proposed changes to R313-22-34, Issuance of Specific License, R313-38-3, Clarifications or Exceptions, and R313-70-5, Payment of Fees
   d. Status of Public Comment on preliminary proposed changes to R313-26, Generator Site Access Permit Requirements for Accessing Utah Radioactive Waste Disposal Facilities

V. Radioactive Materials
   a. Intermountain Medical Center – Request for an exemption from requirement of R313-32 [incorporating 10 CFR 35.615(f)(3) by reference] and the U.S. Nuclear Regulatory Commission (NRC) definition of "physical presence" as per NRC Regulatory Issue Summary 2005-23

VI. Information Items
   a. Qualified Experts - Certificate Renewal
   b. Uranium Mills
      i. Energy Fuels Resources - White Mesa Mill - status update
      ii. Uranium One - Shootaring Canyon - status update
   c. Low-level Radioactive Waste
      i. Depleted Uranium Performance Assessment update
   d. Other Division Items
      i. Division of Quarterly Activities Report – Fourth Quarter 2013

VII. Election of Chair and Vice Chair [per UCA 19-3-103(8)]

VIII. Public Comment

IX. Next Scheduled Board Meeting: Tuesday, February 11, 2014, 1:00 p.m. Multi Agency State Office Building, Board Conference Room #1015
195 North 1950 West
Salt Lake City, Utah

**February 2014 Meeting**

On February 11, 2014, the Board held a working lunch and regularly scheduled meeting in Salt

Lake City, Utah. The meetings were open to the public.

**Working Lunch Meeting Agenda** The following items, among others, were on the working lunch meeting agenda:

I. Welcome

II. Administrative Rulemaking
   a. Discussion of Final adoption of proposed changes to R313-22-34, Issuance of Specific License, and R313-70-5, Payment of Fees
   b. Discussion to Approve change in proposed rule changes to R313-38-3, Clarifications or Exceptions
   c. Discussion of Status of Public Comment on preliminary proposed changes to R313-26, Generator Site Access Permit Requirements for Accessing Utah Radioactive Waste Disposal Facilities

III. Other Items

**Regular Board Meeting** The following items, among others, were on the regular Board meeting agenda:

I. Welcome

II. Approval of the Minutes from the January 14, 2014 Board Meeting

III. Administrative Rulemaking
   a. Final adoption of proposed changes to R313-22-34, Issuance of Specific License, and R313-70-5, Payment of Fees
   b. Approve change in proposed rule changes to R313-38-3, Clarifications or Exceptions
   c. Status of Public Comment on preliminary proposed changes to R313-26, Generator Site Access Permit Requirements for Accessing Utah Radioactive Waste Disposal Facilities

IV. Radioactive Materials

V. Information Items
   a. Uranium Mills
      i. Energy Fuels Resources – White Mesa Mill – Status Update
      ii. Uranium One – Shootaring Canyon – Status Update
   b. Low-Level Radioactive Waste
      i. Depleted Uranium Performance Assessment update
   c. Other Division Items
   d. Legislative Update

VI. Public Comment

VII. Next Scheduled Board Meeting: Tuesday, March 11, 2014 at 1:00 p.m.
Multi Agency State Office Building,
Board Conference Room 1015
195 North 1950 West
Salt Lake City, Utah

**Background**

The Board—which is appointed by the Utah Governor with the consent of the Utah Senate—guides development of Radiation Control policy and rules in the state.

The Board holds open meetings ten times per year at locations throughout the state. A public comment session is held at the end of each meeting.

*Copies of the Utah Radiation Control Board meeting agendas can be found at http://www.radiationcontrol.utah.gov/Board/minagd/agenda.pdf.*

*For additional information, please contact Rusty Lundberg, Director of the Division of Radiation Control at the Utah Department of Environmental Quality, at (801) 536-4257 or at rlundberg@utah.gov.*

# Shootaring Canyon Mill to Change Control and Ownership

On February 7, 2014, the Utah Division of Radiation Control (DRC) issued a notice regarding a recent submission involving a Transfer of Control and Change in Ownership of the Shootaring Canyon Uranium Mill in Garfield County, Utah.

On January 14, 2014, the Director of the Utah Division of Radiation Control (DRC) received a Notice of Change of Control and Ownership from Uranium One Americas, Inc. involving Radioactive Material License UT0900480 and Ground Water Quality Discharge Permit UGW170003.

Pursuant to an Asset Purchase Agreement, dated October 25, 2013, Black Range Utah has agreed to purchase all of Uranium One Americas' assets relating to the Shootaring Canyon Uranium Mill, including the Mill Permits. The approval by the DRC Director of the transfer of the Mill Permits to Black Range Utah is a precondition to the closing of the proposed transaction.

Additional information was provided in a letter dated January 20, 2014. The submission is currently under review by the Division.

**Background**

On December 12, 2011, Radioactive Material License UT 0900480 was extended until April 30, 2014. Black Range Utah has entered into the proposed transaction with the express intention of recommencing operations at the Shootaring Canyon Uranium Mill in the near to medium term.

As such, in the January 20 letter, Uranium One Americas requested that concurrent with the Director's approval of the transfer of the Mill Permits, that the Director also approve the extension of the Mill Permits for a further 36 months. The request is intended to allow Black Range Utah sufficient time to prepare applications to recommence operations at the Shootaring Canyon Uranium Mill.

The letter included Black Range Utah's parent company, Black Range Minerals Limited, proposed strategy and timelines for the development of its uranium assets in the United States, which includes the recommencement of operations at the Shootaring Canyon Uranium Mill.

*The January 14, 2014 Notice, along with other documents, have been posted to the DRC web page at http://www.radiationcontrol.utah.gov/Uranium_Mills/uraniumone/index.htm.*

*For additional information, please contact Rusty Lundberg, Director of the Division of Radiation Control at the Utah Department of Environmental Quality, at (801) 536-4257 or at rlundberg@utah.gov.*

*Rocky Mountain Compact/New Mexico*

# Enforcement Conference Held for URENCO USA

On February 28, 2014, the U.S. Nuclear Regulatory Commission held a pre-decisional enforcement conference with officials from Louisiana Energy Services (LES) / URENCO, USA of Eunice, New Mexico.

*The LLW Forum is hosting an optional site tour of the URENCO USA facility, as well as of the Waste Control Specialists LLC facility, on March 19 in conjunction with our spring 2014 meeting that will be held in Austin, Texas on March 17-18, 2014. Additional information on the optional site tour can be found at www.llwforum.org. (See related story, this issue.)*

**Violations**

The purpose of the conference was to discuss two apparent violations of NRC requirements related to criticality safety controls. Specifically, the licensee failed to adequately track the mass of uranium in containers in the facility's Small Component Decontamination Train. The second apparent violation is related to LES' failure to report the procedural problem to the NRC.

No actual criticality safety event occurred at the plant and there was never any danger to the public. However, strict control and monitoring of uranium is important in maintaining appropriate safety margins at the facility.

**Enforcement Conference**

The NRC enforcement conference began at 9:00 a.m. EST at the NRC Region II office located at 245 Peachtree Center Avenue in Atlanta, Georgia. The meeting was open to the public and NRC officials were available after the meeting to answer any questions.

No decision on enforcement action was made at the conference. NRC officials will review information presented by LES at the conference and reach a decision on appropriate regulatory action at a later date.

*An NRC inspection report with more information on the violations is available on the NRC website at www.nrc.gov. For additional information, please contact Roger Hannah at (404) 997-4417 or Joey Ledford at (404) 997-4416.*

*Southeast Compact*

# Electric Power Research Institute Selected as Hodes Award Winner

The Southeast Compact Commission for Low-Level Radioactive Waste Management has selected the Electric Power Research Institute (EPRI) as the recipient of the 2014 Richard S. Hodes, M.D. Honor Lecture Award—a program that recognizes an individual, company, or organization that has contributed in an innovative way to improving the technology, policy, or practices of low-level radioactive waste management in the United States.

**2014 Award Winner**

EPRI is being recognized for the significant role the organization plays in advancing low-level radioactive waste management improvements in the United States. EPRI's leadership and innovative efforts in developing waste storage guidelines and providing site-specific support for low-level waste programs at nuclear power plants have enhanced public safety, as well as contributed to the efficient management of radioactive waste in the US. The organization's work clearly exemplifies the qualities that the Hodes Award is intended to recognize.

EPRI is an independent, nonprofit organization that conducts research, development and demonstration relating to the generation, delivery and use of electricity for the benefit of the public. The organization brings together scientists and engineers, as well as experts from academia and the industry to help address challenges in nearly every area of electricity generation, delivery and use, management and environmental responsibility.

Lisa Edwards, who is a Senior Program Manager at EPRI, accepted the Hodes Award on behalf of the organization. Edwards also presented a lecture during the 2014 Waste Management conference in Phoenix, Arizona. A specific time was reserved on Monday, March 3, 2014, for the presentation of the award and the lecture.

**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); and,
- Energy*Solutions*, the Utah Department of Environmental Quality (UDEQ), the Conference of Radiation Control Program Directors (CRCPD), and the U.S. Department of Energy's (DOE) Global Threat Reduction Initiative (2013 *honorable mention*).

*For additional information, please contact the Southeast Compact Commission at (919) 380-7780 or at secc@secompact.org.*

*Texas Compact Commission*

# Texas Compact Commission Holds January Meeting

On January 16, 2014, the Texas Low-Level Radioactive Waste Disposal Compact Commission (Texas Compact Commission) held a regularly scheduled meeting in Room E1.028 at the Texas State Capitol at 1100 Congress Avenue in Austin, Texas.

**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;
- discussion of revisions to 31 Texas Administrative Code §675.21, §675.22 and §675.23 related to exportation and importation of waste;
- consideration of and possible action on request for amendments to agreements for importation of low-level radioactive waste from Bionomics; Duke Energy Brunswick Nuclear Power Plant; and, Tennessee Valley Authority;
- consideration of and possible action on applications and proposed agreements for importation of low-level radioactive waste from Alaron Nuclear Services; Perkin Elmer; RAM Services and NNSI;
- consideration of and possible action on petitions and proposed orders for exportation of low-level radioactive waste from Bionomics-Alcon Fort Worth, Texas (liquids in vials) and Bionomics-Alcon Fort Worth, Texas (dry active waste with sharps);
- receive reports from the Texas Commission on Environmental Quality (TCEQ) on the status of pending facility operator license amendment applications; status of the TCEQ rulemaking associated with the low-level radioactive waste rate case; and, any other matter TCEQ wishes to bring to the attention of the Texas Compact Commission;
- receive reports from Waste Control Specialists LLC (WCS) about recent site operations; Class A waste importation presentation; and, any other matter WCS wishes to bring to the attention of the Texas Compact Commission;
- Chairman's report on Texas Compact Commission activities including reporting on fiscal matters and on other actions to be taken by the compact;
- report from Leigh Ing, Consulting Supervisory Director of the Texas Compact Commission, on her activities and questions related to Commission operations;
- discussion and possible changes of dates and locations of future Texas Compact Commission meetings; and,
- adjourn.

**Background**

The Texas Compact Commission may meet in closed session on any item listed above if authorized by the Texas Open Meetings Act, Chapter 551, Texas Government Code.

*Texas Compact Commission meeting agendas may be found on the Commission's website at http://www.tllrwdcc.org/.*

*For additional information, please contact Leigh Ing, Consulting Supervisory Director of the Texas Compact Commission, at (512) 217-8045 or at* ing.leigh@gmail.com *or Robert Wilson, Chairman of the Texas Compact Commission, at (512) 820-2930 or at* bob.wilson@tllrwdcc.org.

*Texas Compact/State of Texas*

# Texas House Speaker Releases Interim Committee Charges

**Includes Consideration of Storage or Disposal of High-Level Waste in Texas**

On January 31, 2014, Speaker of the Texas House of Representatives Joe Straus issued the interim charges for the 83rd Legislature.

"These charges will help every standing committee in the Texas House begin the important work of preparing for the 2015 legislative session," explains Straus in an accompanying letter. "The charges reflect many of the ideas and issues that you have suggested the House study over the course of the next year. I want to thank you for those suggestions and encourage you to work on these charges with focus and diligence. I also hope you will approach these issues with an open mind. Don't be afraid to consider new and different ways to make state government more effective, efficient and accountable to the taxpayers."

The House Committee on Environmental Regulation has three charges as follows:

1. *Study the environmental permitting processes at the Texas Commission on Environmental Quality (TCEQ), specifically the contested-case hearing process at the State Office of Administrative Hearings (SOAH) and the timeliness associated with the process. Study the economic impact that the state's permitting processes have on Texas manufacturing sectors and how neighboring states' and the federal permitting processes and timeliness compare to those in Texas.*

2. *Study the rules, laws, and regulations pertaining to the disposal of high-level radioactive waste in Texas and determine the potential economic impact of permitting a facility in Texas. Make specific recommendations on the state and federal actions necessary to permit a high-level radioactive waste disposal or interim storage facility in Texas.*

3. *Conduct legislative oversight and monitoring of the agencies and programs under the committee's jurisdiction and the implementation of relevant legislation passed by the 83rd Legislature. In conducting this oversight, the committee should:*
   a. *consider any reforms to state agencies to make them more responsive to Texas taxpayers and citizens;*
   b. *identify issues regarding the agency or its governance that may be appropriate to investigate, improve, remedy, or eliminate;*

c. *determine whether an agency is operating in a transparent and efficient manner; and*
d. *identify opportunities to streamline programs and services while maintaining the mission of the agency and its programs.*

In his letter, Straus states that in the coming months he plans to release additional charges and highlight some of his own priorities for the upcoming session. The interim charges are intended to assist the House in preparing for the beginning of the 84th Legislature.

# Texas Billionaire Harold Simmons Dies at 82

On December 28, 2013, Billionaire Harold Simmons died at Baylor University Medical Center at Dallas, Texas. Simmons, who was 82 at the time of his death, served as Chairman of Valhi Inc. Waste Control Specialists LLC (WCS) is a subsidiary of Valhi, Inc.

The East Texas native, who sat at No. 40 on Forbes' list of the 400 wealthiest Americans, was reportedly very sick for the last two weeks before his death and in Baylor's intensive care unit for eight days according to his wife. The specific cause of death has not been announced.

Simmons was a major donor to the Republican Party. "The Texas billionaire was a controversial figure and often did battle with federal regulators as head of Contran Corp., a holding company for other companies that dealt in hazardous waste and toxic chemicals," stated an article in the Wall Street Journal. "He was also a major philanthropist, giving millions to Texas universities, the Dallas Opera and to a girls' school in Africa founded by Oprah Winfrey."

"Harold Simmons was a true Texas giant, rising from humble beginnings and seizing the limitless opportunity for success we so deeply cherish in our great state," said Texas Governor Rick Perry in a prepared statement. "His legacy of hard work and giving, particularly to his beloved University of Texas, will live on for generations."

*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.*

**Appalachian Compact/States of Maryland and Pennsylvania**

**Calvert Cliffs Nuclear Plant** On January 27, 2014, the U.S. Nuclear Regulatory Commission announced that the agency had initiated a Special Inspection at the Calvert Cliffs nuclear power plant, which is operated by Constellation Energy LLC and is located in Lusby, Maryland. The inspection is intended to further review an unplanned shutdown of both reactors at the site that occurred on January 21 when, during a winter storm, an electrical supply system that distributes off-site power to the plant was temporarily interrupted. At this point it appears that snow and ice affected a ventilation louver filter, causing an electrical fault, or short-circuit. Breakers tripped, or opened, as designed to clear the fault, shutting down the electrical supply system. Subsequently, several electric-powered plant systems and components shut down, including motors for moving control rods and circulating-water pumps for Unit 2, triggering an automatic plant shutdown. The electricity loss also caused the Unit 1 main turbine control circuit to malfunction, which led to the automatic shutdown of Unit 1. Both of the pressurized-water reactors were safely taken out of service following the power interruption, and there were no impacts on public health and safety. Comprised of three members, the inspection team will evaluate what happened during the event, including the response by plant operators and safety systems. The inspection will also examine the event's causes and any related issues. It will expand on initial assessments performed by two NRC inspectors, one of whom is the Senior Resident Inspector assigned to the facility on a full-time basis.

**Pennsylvania-Based Firm** On February 6, 2014, NRC announced that staff is proposing a $3,500 civil penalty for a Pennsylvania-based company over violations involving inadequate control and security of a portable nuclear gauge. On May 3, 2013, Valley Quarries, Inc.—based in Chambersburg (Franklin County), Pennsylvania—reported that one of its nuclear gauges was missing. One of the company's employees had been using the device that day to take a compaction reading at a road construction site near Martinsburg, West Virginia. After completing the reading, the individual placed the gauge in the back of a pick-up truck and departed for another work site. Upon arriving at the second site, the employee realized the truck's gate had opened and the gauge was missing. A search for the gauge failed to locate it. However, a member of the public found the device on the roadside. After seeing public notices from the Pennsylvania Department of Environmental Protection (PA DEP) and the NRC that the gauge was being sought, the citizen turned it over to the PA DEP on May 15. The PA DEP later returned the gauge to Valley Quarries. Based on subsequent inspections by the NRC staff and an investigation by the agency's Office of Investigations, the NRC is proposing the fine for three violations of agency requirements: (1) failure to properly secure the gauge from shifting during transport; (2) failure to control and maintain constant surveillance of the gauge; and, (3) failure to use two independent physical controls to secure the gauge from unauthorized removal. Valley Quarries is licensed to use nuclear gauges by Pennsylvania, which is an NRC Agreement State. However, the company was performing the work in West Virginia, which is not an Agreement State, under

a reciprocity agreement with the NRC. Therefore, this event was under the NRC's jurisdiction, though the agency coordinated follow-up activities with Pennsylvania.

**Atlantic Compact/States of Connecticut and South Carolina**

**Millstone Unit 3 Nuclear Plant** On February 3, 2014, NRC announced that the agency has begun a Special Inspection at the Millstone Unit 3 nuclear power plant to further review repetitive problems involving a pump that is part of a reactor safety system. The plant, which is operated by Dominion Nuclear Connecticut Inc., is located in Waterford, Connecticut. The inspection, to be conducted by a four-member team, will focus on a turbine-driven auxiliary feed-water pump for the plant. The auxiliary, or back-up, feed-water system is one of several that can be used to help cool down the reactor following a shutdown by pumping water into the secondary side of the plant's steam generators. The steam generators are essentially large heat exchangers that convert heat produced by the reactor into steam, which in turn is used to spin the plant's turbine and generate electricity. Among the areas to be reviewed during the Special Inspection are Dominion's responses to the issues, including the adequacy and completeness of testing on the pump and root-cause evaluations of the problems. It will expand on earlier assessments performed by the NRC Resident Inspectors assigned to Millstone on a full-time basis and by NRC specialist inspectors. On May 15, 2013, at the end of a refueling and maintenance outage, plant personnel observed that the turbine-driven auxiliary feed-water pump was experiencing speed oscillations, or unexpected fluctuations, during testing. There were also problems involving the pump on several other dates, most recently on January 23, 2014. The issues included oscillations and over-speeding.

**Westinghouse Fuel Facility** On February 24, 2014, NRC held a meeting to discuss the Westinghouse Fuel Facility's modified plans for withstanding earthquakes. The Westinghouse facility, which fabricates fuel assemblies for commercial power reactors using low-enriched uranium dioxide, is located near Columbia, South Carolina. At the meeting, which was open to the public, Westinghouse officials provided the results of the facility's Seismic Improvement Plan. Following the 2011 earthquake and tsunami in Fukushima, Japan, NRC encouraged all nuclear fuel facilities to re-analyze their ability to withstand a significant seismic event.

**Central Interstate Compact/State of Kansas**

**Wolf Creek Nuclear Plant** On January 22, 2014, NRC staff met with officials of the Wolf Creek Nuclear Operating Corp. to discuss the licensee's progress in addressing safety conscious work environment concerns. The plant is located north of Burlington, Kansas. The meeting, which was open to public observation, was held in the NRC's Region IV office. On August 19, 2013, following inspections and interviews with plant workers, the NRC issued a chilling effect letter after determining a "chilled work environment" exists within the Quality Assurance (QA) group at the plant. A chilled work environment is one in which workers are hesitant to raise safety concerns for fear of retaliation. The company responded with a letter a month later outlining actions it is taking to address the concerns and ensure they facilitate a strong safety conscious work environment. At the meeting, company officials provided an update on their progress. On May 15, 2013, the U.S. Department of Labor's Occupational Safety & Health Administration (OSHA) found that Enercon, a Wolf Creek contractor, fired a worker for raising concerns with how work was being performed at Wolf Creek. The NRC considered OSHA's finding and decided to issue the chilling effect letter as the firing might affect the willingness of other workers to speak up on nuclear-related projects at the plant.

**Central Midwest Compact/State of Illinois**

**Braidwood and Byron Nuclear Plants** On February 10, 2014, NRC announced that the agency has approved a request by Exelon Generation Company, LLC to increase the generating capacity of the Braidwood and Byron Nuclear Power Stations by 1.63 percent for each reactor. The NRC staff determined that Exelon could safely increase the reactors' output primarily through more accurate means of measuring feed-water flow. NRC staff also reviewed the company's evaluations showing the plant's design can accommodate the increased power level. Braidwood Station is located in Braceville, Illinois—approximately 20 miles southwest of Joliet. Byron Station is located in Byron, Illinois—approximately 17 miles southwest of Rockford. Each station has two pressurized water reactors. The power uprate will increase each station's total generating capacity from approximately 2,350 to 2,390 megawatts electric. The NRC's safety evaluation of the plant's proposed power uprate focused on several areas, including the nuclear steam supply systems, instrumentation and control systems, electrical systems, accident evaluations, radiological consequences, fire protection, operations and training, and technical specification changes. The NRC published a notice about the power uprate application in the *Federal Register* on December 6, 2011. *The agency's evaluation of the power uprate is available through the NRC's ADAMS electronic document database by entering Accession Number ML13281A000.*

**Davis-Besse Steam Generator Installation** On February 20, 2014, NRC's Region III office held a webinar to discuss inspection efforts for Davis-Besse's installation of two steam generators and how the agency's activities help ensure the public and environment are protected. During the webinar, the NRC Region III office explained the agency's regulations, discussed its inspection process and answered questions associated with the plant's new steam generator installation.

**LaSalle Nuclear Plant Unit 2** On February 4, 2014, NRC announced that staff issued a finding to the LaSalle nuclear plant Unit 2 for failing to adhere to a procedure, which resulted in a manual shutdown. The two-unit plant operated by Exelon Generation Company is located in Marseilles, Illinois—approximately 11 miles southeast of Ottawa. NRC inspectors identified the finding during a September 2013 inspection at the plant. The finding involved the failure of the plant staff to perform certain procedural steps in accordance with existing procedures. As a result, approximately a foot of circulating water flowed into a small area in the turbine building, triggering intake pumps to shut off and a loss of normal heat removal, which led to a reactor shutdown. The NRC will conduct a supplemental inspection to review the plants corrective actions such as additional training activities for operators, procedure revisions and whether plant staff understood the cause of the problem. The NRC evaluates a nuclear power plant's performance with a color-coded process that classifies regulatory findings as green, white, yellow or red, in order of increasing safety significance. After considering the information regarding this violation at LaSalle, the NRC staff has characterized the inspection finding as white or as having a low to moderate safety significance. *The NRC inspection letter detailing the final determination will be publically available via ADAMS.*

**Midwest Compact/States of Iowa, Missouri and Ohio**

**Duane Arnold Nuclear Station** On February 19, 2014, NRC issued a white finding of low-to-moderate safety significance to the Duane Arnold nuclear power plant for failing to perform an immediate operability evaluation of the Reactor Core Isolation Cooling (RCIC) system. The finding will result in increased oversight by the NRC. The plant, operated by NextEra Energy Duane Arnold, is located eight miles northwest of Cedar Rapids, Iowa. NRC inspectors determined the licensee failed to perform an immediate

operability evaluation and did not recognize the RCIC system was inoperable after receiving a signal that the turbine speed indicator was in a degraded condition. As a result, this system, which is one of the sources of water for cooling the reactor in case of certain plant events, would not have been available to fulfill its safety function. However, in case of an actual event, other systems are in place to provide cooling water to the reactor. The utility has taken corrective actions to resolve the problem. As a result of this finding and a previous white finding issued in December 2013, the plant will move from Column 2 to Column 3 of the NRC's Action Matrix, retroactive to the third quarter of 2013. The initial white finding involved the failure to have an appropriate procedure for the reassembly of a standby diesel generator's oil heat exchanger. As a result, one of the station's two diesel generators was inoperable. The NRC will conduct an inspection focusing on both white findings to determine whether the plant staff has understood what caused the individual problems and determine if there are common performance issues for the findings; assess if there are safety culture issues that contributed to performance deficiencies; and independently verify the licensee has taken sufficient actions to correct the problems. *The NRC inspection letter detailing the final determination is publically available via ADAMS.*

**Callaway Nuclear Plant** On February 21, 2014, NRC announced that the agency is seeking public comment on a draft report assessing the environmental impacts of extending the operating license for the Callaway nuclear power plant in Fulton, Missouri. The Callaway plant is a single pressurized water reactor and is licensed to operate through October 18, 2024. Union Electric Co., a subsidiary of Ameren Missouri, applied to renew the license for an additional 20 years on December 15, 2011. The draft environmental impact statement (EIS) contains the NRC staff's preliminary finding that the environmental impacts of license renewal would not preclude renewing the license. This finding is based on the analysis and findings in the agency's generic environmental impact statement on license renewal; the environmental report submitted by Ameren; consultation with federal, state and local agencies; the NRC staff's own independent review; and the staff's consideration of public comments. The NRC staff will hold two public meetings March 19 at the Fulton City Hall to present the report's findings and receive comments from the public. Comments may also be submitted over the federal rulemakings website at www.regulations.gov, using Docket ID NRC-2012-0001, or mailed to Cindy Bladey, Chief, Rules, Announcements, and Directives Branch (RADB), Office of Administration, Mail Stop: 3WFN-06-44M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Comments will be accepted through April 7. *The draft EIS for the Callaway plant license renewal (NUREG-1437, supplement 51), along with information on the staff's review of the license renewal application, is available on the NRC website at www.nrc.gov.*

**Fermi Nuclear Plant** On February 10, 2014, NRC announced that the agency has approved a request by DTE Electric Co. to increase the generating capacity of the Fermi nuclear power plant, Unit 2, by approximately 1.6 percent. The NRC staff determined that DTE could safely increase the reactor's output primarily through more accurate means of measuring feed-water flow. NRC staff also reviewed the company's evaluations showing that the plant's design can accommodate the increased power level. The NRC's safety evaluation of the plant's proposed power uprate focuses on several areas, including the nuclear steam supply system, instrumentation and control systems, electrical systems, accident evaluations, radiological consequences, fire protection, operations and training, testing, and technical specification changes. The power uprate for Fermi Unit 2, a boiling water reactor located approximately 25 miles northeast of Toledo, Ohio, will increase the unit's generating capacity from approximately 1,179 to 1,198 megawatts electric. DTE intends to implement the

uprate during the current refueling outage. The NRC published a notice about the uprate application in the *Federal Register* on June 11, 2013. *The staff's evaluation of the uprate application is available through the NRC's ADAMS online documents database by entering Accession Number ML13364A131.*

**Southeast Compact/States of Alabama, Florida and Tennessee**

**Farley Nuclear Plant** On January 21, 2014, NRC announced that the agency has launched a special inspection at Southern Nuclear Operating Co.'s Farley nuclear power plant to assess the circumstances surrounding the failure of some electrical circuits on Unit 2 during testing earlier that month. The two-unit Farley plant is located near Columbia, Alabama—approximately 18 miles east of Dothan. The circuits that failed the test would automatically start one group or train of equipment that would cool the reactor during certain accident scenarios. Farley plant employees found the circuits in a condition that would have prevented the equipment from functioning if needed, but other equipment providing similar functions would have been available. When the condition was discovered, operators shut down Unit 2 and began troubleshooting the issue. The NRC two-member special inspection will review the failed test information, the company's actions, the plant's maintenance practices for the circuits and any history of related failures. The team is comprised of a senior resident inspector from another site with experience at the Farley plant and a region-based inspector with electrical expertise. *A report documenting the results should be issued within 45 days of the completion of the inspection.*

**Browns Ferry Nuclear Plant** On January 30, 2014, NRC held a public meeting near the Browns Ferry nuclear plant to discuss the results of inspections stemming from a confirmatory action letter issued to the plant last year. The letter, issued August 22, 2013, lists a number of actions committed to by the Tennessee Valley Authority, the plant's operator. Those commitments are intended to ensure the continued improvement of the utility's Browns Ferry plant, located near Athens, Alabama—approximately 32 miles west of Huntsville. During the meeting, NRC officials discussed the results of NRC inspections following the issuance of the letter as well as the current NRC assessment of the plant's safety performance. The letter, and a long series of inspections conducted over the last three years, stem from a red, or high safety significance finding, which was finalized in 2011. The improvements TVA agreed to institute include an improved safety culture as well as upgrades in the plant's corrective action program, safety system reliability plans, work management processes and a procedure upgrade project. The letter also detailed a second group of longer-term actions focused on sustained performance and long-term success criteria, which are scheduled to be completed by December 15, 2014, though some are scheduled for completion as early as May 2014. The red finding was issued due to the failure of a Unit 1 low-pressure coolant injection valve in the fall of 2010. That valve is part of a system relied upon for core cooling during certain accident scenarios. The valve was promptly repaired after its condition was discovered, but the NRC oversight process identified the issue as a red finding with high safety significance resulting in increased NRC inspection and oversight. Supplemental inspections began in 2011 following the red finding and a 23-person NRC team completed an intensive supplemental inspection at the plant last spring.

**Crystal River Nuclear Plant** On January 16, 2014, NRC staff held a public meeting in Crystal River, Florida to discuss and receive comments on the Post-Shutdown Decommissioning Activities Report (PSDAR) for the Crystal River 3 nuclear power plant. The report was submitted to the NRC on December 2. It describes Duke Energy's plans under the decommissioning option it has selected, including putting structures on the site into SAFSTOR for many years, the eventual dismantling of those buildings, the removal of

components and the clean-up of any residual radioactivity. Crystal River 3 is a pressurized-water reactor located in Crystal River. On February 20, 2013, Duke Energy formally notified the NRC that the plant, which had been shut down since 2009, had permanently ceased operations and that the nuclear fuel had been permanently removed from the reactor. *A copy of the PSDAR can be viewed on the NRC's web site, in the agency's ADAMS electronic documents system, using Accession Number ML13340A009.*

**Watts Bar Nuclear Plant** On February 5, 2014, NRC held a public meeting near the Watts Bar nuclear plant to discuss the results of inspections stemming from flooding-related violations issued to the plant last year. During the regulatory performance meeting, NRC officials discussed the results of supplemental and follow-up inspections related to two inspection findings, one of substantial safety significance, and the second of low to moderate safety significance. The violations stem from the plant's failure to meet NRC requirements for analyzing and preparing for potential floods. The plant, operated by the Tennessee Valley Authority, is located on Watts Bar Lake—which is located approximately 60 miles southwest of Knoxville. At the meeting, NRC discussed the corrective actions TVA has taken and plans to take to prepare for the unlikely failure of upstream dams. No actual flooding event that would have affected the plant's operations has occurred.

**Sequoyah Nuclear Plant** On February 4, 2014, NRC held a public meeting near the Sequoyah nuclear plant in Tennessee to discuss the results of inspections stemming from flooding-related violations issued to the plant last year. During the regulatory performance meeting, NRC officials discussed the results of supplemental and follow-up inspections related to two inspection findings of low to moderate safety significance. The violations stem from the plant's failure to meet NRC requirements for analyzing and preparing for potential floods. The plant, operated by the Tennessee Valley Authority, is located on Chickamauga Lake—approximately 16 miles northeast of Chattanooga. At the meeting, NRC discussed the corrective actions TVA has taken and plans to take to prepare for the unlikely failure of upstream dams. No actual flooding event that would have affected the plant's operations has occurred.

**Southwestern Compact/State of South Dakota**

**Dewey-Burdock Uranium Recovery Project**
On January 30, 2014, NRC issued the final supplemental environmental impact statement (SEIS) for the proposed Dewey-Burdock in-situ uranium recovery project in Custer and Fall River counties in South Dakota. The report concludes that there are no environmental impacts that would preclude licensing the facility. Powertech (USA) Inc. submitted a license application for the facility on August 10, 2009. The license would authorize Powertech to construct, operate and ultimately decommission the facility. The facility would use the in-situ recovery process to extract uranium from underground ore and convert the recovered uranium into yellowcake for use in the production of nuclear fuel. The NRC report analyzes environmental impacts specific to the Dewey-Burdock site and mitigation strategies to reduce or avoid adverse effects on the surrounding environment. The staff completed its analysis in March 2013 of the safety aspects of the application in a separate technical review. That review concluded that Powertech's application complies with NRC regulations. The NRC is also reviewing the project's potential impacts on historic and cultural resources and would only issue a license after that process is completed. Later this year, an NRC Atomic Safety and Licensing Board will hear oral arguments from interveners that raised concerns about the project. *The SEIS for the proposed Dewey-Burdock uranium recovery project is available on the NRC website as Supplement 4 to NUREG-1910, Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities.*

**State of Michigan**

**University of Michigan** On January 10, 2014, NRC proposed a $3,500 civil penalty against the Regents of the University of Michigan Radiation Safety Service, for security-related violations stemming from a routine NRC materials inspection. The NRC conducted the inspection between June and September of 2013. NRC staff looked at the usage of licensed materials for medical applications, research and development at the Ann Arbor, Flint and Pellston campuses. The security violations were identified at the Ann Arbor campus. Once the violations of NRC requirements were identified, the university took immediate corrective actions to restore compliance. Details about security-related violations are not made public. *A copy of the Enforcement Action is available on ADAMS.*

**State of Nebraska**

**Fort Calhoun Nuclear Station** On February 27, 2014, NRC met with Omaha Public Power District (OPPD) officials to discuss the status of performance improvement activities at the Fort Calhoun nuclear power plant. The plant is located approximately 19 miles north of Omaha, Nebraska. It restarted on December 13, 2013, after a shutdown of 32 months, but remains under increased NRC oversight.

*International Atomic Energy Agency*

# IAEA Mission Concludes Peer Review of U.S. Nuclear Regulatory Framework

## *Report Features Post-Fukushima Efforts & Enhancing Regulations*

On February 11, 2014, an international team of senior nuclear safety experts concluded a nine-day International Atomic Energy Agency (IAEA) mission to review the regulatory framework for the safety of operating nuclear power plants in the United States. The Integrated Regulatory Review Service (IRRS) assesses a country's regulatory infrastructure against international safety standards and good practices.

The team was tasked with following-up to the IRRS mission to the U.S. Nuclear Regulatory Commission (NRC) that was conducted in 2010, with the key additional aim of reviewing whether the NRC's response to the implications of the accident at TEPCO's Fukushima Daiichi plant had been timely and effective. The IRRS team concluded that the NRC "has acted promptly and effectively… in the interests of the public health and safety" following the March 2011 Fukushima nuclear accident, and that the report of its Near-Term Task Force represents a sound and ample basis for taking into account the lessons learned from the accident.

*NRC staff is scheduled to give a presentation on lessons learned from the Fukushima incident at the upcoming Low-Level Radioactive Waste Forum (LLW Forum) meeting in Austin, Texas on March 17-18, 2014. The draft meeting agenda, bulletin and registration form can be found on the LLW Forum's web site at www.llwforum.org.*

**IRRS and NRC Statements**

"The NRC is to be commended for its positive response to the findings of the IRRS mission in 2010," said Colin Patchett, IRRS mission Team Leader and Director – IRRS Missions at the United Kingdom's Office for Nuclear Regulation. "NRC staff have shown their professionalism and commitment, enabling the team to close the majority of issues from the previous mission."

"We greatly appreciate the team's findings that the NRC's post-Fukushima actions are appropriately addressing the lessons we've learned," said NRC Chairman Allison Macfarlane. "I'm pleased to see not only that our 2011 Near-Term Task Force report is internationally respected, but that our inspection activities are also highlighted as being 'exemplary.'"

**IRRS Team Observations**

In its preliminary report, the IRRS team made the following general observations:

- the NRC has put in place measures to clarify that the prime responsibility for safety lies with the licensees;
- the NRC has made a clear commitment to complete and implement the description and map of its Management System;
- the NRC has implemented procedures to ensure a systematic review of its Guides is carried out, taking account of operational experience feedback and IAEA safety standards;
- requirements for emergency preparedness have been expanded to ensure that the emergency exercise program is challenging to all those involved; and,
- the role of the safety/security interface has been enhanced through improved analysis of operating experience, and development of an integrated safety/security culture.

The IRRS team identified the following good practice:

- significant non-nuclear events in other industries are systematically analyzed as part of the operating experience program, and this analysis is coordinated and communicated through the new Operating Experience Center of Expertise.

It also identified the following one new suggestion where overall performance of the regulatory system could be enhanced:

- the NRC should consider developing consolidated regulatory requirements and corresponding guidance in order to facilitate the orderly transition from operation to decommissioning of nuclear power plants.

**Background**

The weeklong visit of eight nuclear regulators and support staff from European countries examined the NRC's response to recommendations and suggestions from a full IRRS mission in 2010. The team's examination of the agency's response to Fukushima concluded the NRC acted in a timely manner and properly implemented short-term actions. The team also discussed the agency's commitment to action in the long term, as well as the significant effort that remains for fully incorporating all the changes into NRC regulations.

The follow-up team commended the NRC for effectively addressing one of two recommendations and 19 of 20 suggestions from the original IRRS mission. The unresolved recommendation involves comprehensively mapping the NRC's various processes in order to develop a more integrated management approach. The NRC continues to address the remaining recommendation and suggestion, and will address

the team's new suggestion on consolidating rules and guidance for plants permanently ceasing operation and moving to decommissioning.

The 2010 IRRS mission focused on technical and policy issues regarding the agency's oversight of operating U.S. nuclear power plants. The IRRS program provides independent peer review of a country's nuclear regulator by interviewing staff, examining documents and observing inspection activities. The IAEA has conducted 51 full or follow-up IRRS missions in countries that include Australia, Canada, France, Japan, Mexico, Russia and the United Kingdom.

The IRRS mission to the U.S. in 2010 reviewed a broad spectrum of legal and regulatory issues within the nuclear regulatory framework, resulting in recommendations to fully comply with the IAEA safety standards and suggestions for further possible improvement of the regulatory framework. The IAEA encourages countries that have hosted initial IRRS missions to invite follow -up missions two to four years after the initial mission.

*The follow-up team's report will be available on the NRC website at www.nrc.gov. For additional information, contact Scott Burnell of the U.S. Nuclear Regulatory Commission at (301) 415-8200.*

*Waste Management Symposia*

# Waste Management 2014 Conference Held in Phoenix

The Waste Management 2014 Conference, *"40 Years of Meeting Global Radioactive Waste Management Challenges,"* was held at the Phoenix Convention Center in Phoenix, Arizona from March 2-6, 2014. The technical conference, which focuses on the safe management and disposition of radioactive waste and radioactive materials, featured 127 technical sessions with over 600 papers and panels covering the breadth of the radioactive waste management issues.

**Highlighted Speakers**

**Plenary Speakers** The plenary program on Monday morning featured a world-wide perspective of the field of radioactive waste management including:

- Christopher Eckerberg**,** Managing Director, SKB (Sweden);
- Reijo Sundell**,** President of Posiva Oy (Finland);
- John Lehew**,** Senior Vice President, CH2M HILL Nuclear Business Group; and,
- David Huizenga**,** Senior Advisor, U.S. Department of Energy—Environmental Management.

**Lunch Speaker** The conference welcomed Kazuhiro Suzuki, Executive Director of the International Research Institute for Nuclear Decommissioning in Tokyo, as the Monday luncheon speaker. Suzuki provided an update on recovery activities at Fukushima.

**Technical Programs**

Continuing throughout the conference, there were five sessions dedicated to the featured nations of Finland and Sweden. In addition, the focus of several other sessions shifted to the U.S. DOE sites of Hanford and Los Alamos National Laboratory. The final day, Thursday, featured an afternoon panel session *"Management of Radioactive Waste Following a Nuclear Accident or Extreme Contamination Scenario,*" which addressed Three Mile Island NPP (United States), Chernobyl NPP (Ukraine), Fukushima NPP (Japan), Kyshtym Waste Depot Accident (Russian Federation), Windscale Pile I (United Kingdom) and the Rocky Flats Infinity Rooms (United States) Remediation. There were other parallel sessions on Thursday, including the EFCOG Waste Management Roundtable. On Friday, the U.S. Nuclear Regulatory Commission held a public meeting to discuss new regulatory standards pertaining to radioactive waste management. *(See related story, this issue.)*

**Sponsorship and Events**

**Exhibit Hall & Sponsorships** The WM Marketplace included hundreds of exhibitors providing information on their latest waste management industry developments, technologies and programs. And, new for this year, the Exhibit Hall remained open later—until 6:30 p.m. on Monday & Tuesday evenings to give attendees more time to explore and network.

**Roy G. Post Foundation Golf Tournament** The Roy G. Post Foundation Golf Tournament was held on Sunday, March 2, at the Raven Golf Club. Tournament proceeds provide educational scholarships for the next generation of nuclear scientists and engineers.

**Networking Event** The conference also included a Wednesday Night Networking Event at the internationally recognized Heard Museum. Attendees enjoyed an evening of food, cocktails and tours of the museum.

**Background**

WM Symposia is a non-profit organization dedicated to education and opportunity in waste

management. WM Symposia's mission is to provide the foundation of global nuclear waste management exemplified through education and information dissemination.

*For additional information about the conference, please go to www.wmsym.org.*

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***Waste Management Symposia/LLW Forum Panel Presentation***

# LLW Forum Hosts Panel Presentation at Waste Management Symposia

***Hot Topics and Emerging Issues in U.S. Commercial LLRW Management***

On March 3, 2014, the Low-Level Radioactive Waste Forum (LLW Forum) hosted a panel titled "Hot Topics and Emerging Issues in U.S. Commercial LLRW Management" at the Waste Management conference in Phoenix, Arizona. *(See related story, this issue.)*

The panel focused on emerging issues in commercial LLW management in the United States from the perspective of five active LLW Forum members. State, compact, federal and industry officials shared their views on a variety of timely and significant topics related to low-level radioactive waste management and disposal including, but not limited to:

- proposed changes to the Texas Low-Level Radioactive Waste Disposal Compact Commission's (TLLRWDCC's) import and export rules and the White Paper on establishing the generator of low-level radioactive waste, as well as requirements and restrictions regarding waste type, origin, and volume;

- the U.S. Nuclear Regulatory Commission's (NRC's) Part 61 site-specific performance assessment rulemaking, branch technical position on concentration averaging and encapsulation, and low-level waste strategic assessment;

- proposed revisions to low-level waste manifesting guidance, including what is not optimal about current practice and ways to improve, with particular focus on the phantom four;

- issues, findings and recommendations from the LLW Forum's Disused Sources Working Group (DSWG) to the National Nuclear Security Administration/Global Threat Reduction Initiative (NNSA/GTRI) on the management and disposition of disused sources that pose a threat to national security; and,

- current issues, technologies and matters of significance for brokers and processors of low -level radioactive waste including nuclear clean-up during challenging economic times.

Panelists included Leigh Ing**,** TLLRWDCC Consulting Supervisory Director; Larry Camper, Director of NRC's Division of Waste Management and Environmental Protection; Billy Cox, Senior Project Manager in Nuclear Chemistry at the Electric Power Research Institute (EPRI); Rusty Lundberg, Director of the Utah Division of Radiation Control; and, Renee Echols, Senior Vice-President of Sales and Marketing at Perma-Fix Environmental Services.

*For additional information about the Waste Management Symposia, please go to www.wmsym.org.*

*NRC Workshop re Part 61 and LLW Strategic Assessment*

# NRC Hosts Workshop re Part 61 Revisions and LLW Strategic Assessment

On March 7, 2014, the U.S. Nuclear Regulatory Commission conducted a public workshop immediately following the annual Waste Management 2014 Conference. *(See related story, this issue.)* The meeting was held from 8:00 a.m. – 1:00 p.m. MST in Phoenix, Arizona.

**Public Workshop**

The purpose of the public workshop was to discuss the status of proposed revisions to the agency's low-level radioactive waste disposal regulations and to gather information on an update to the NRC's 2007 strategic assessment of its low-level radioactive waste regulatory program from stakeholders and other interested members of the public.

Participants from NRC staff included members of the Office of Federal and State Materials and Environmental Management Programs (FSME).

The agenda for the workshop was as follows:

7:30 – 8:00 am Registration
8:00 – 8:15 am Facilitator Opening Comments C. Cameron, Facilitator
8:15 – 8:30 am NRC Welcome L. Camper, NRC/FSME
8:30 – 9:30 am Status of Low-Level Radioactive Waste Disposal Rulemaking and Discussions D. Esh, NRC/FSME

*9:30 – 9:45 am Break*

9:45 – 10:00 am Strategic Assessment of Low-Level Waste Regulatory Program M. Wong, NRC/FSME
10:00 – 11:30 am Panel Discussions
11:30 – 12:45 pm Facilitated Public Discussions
12:45 – 1:00 pm Closing Remarks A. Mohseni, NRC/FSME

Interested members of the public were able to participate in the workshop via webinar or via a dedicated toll-free telephone line.

All were welcome to attend, including waste generators, processors, disposal facility operators, states, low-level radioactive waste compacts, advocacy groups and members of the public. Although this meeting was not a part of the Waste Management 2014 Conference, it was held the day after the conference ends in an effort to facilitate attendance and participation by members of the waste industry and other stakeholders who have an interest in the subject.

**Background**

On July 18, 2013, NRC staff requested Commission approval to publish a proposed rule in the *Federal Register* that would amend Part 61 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Licensing Requirements for Land Disposal of Radioactive Waste." (See *LLW Notes,* July/August 2013, pp. 1, 32-38.) The staff is proposing to revise Part 61 in response to Commission direction and stakeholders' comments. On February 20, 2014, NRC released a Staff Requirements Memorandum (SRM-SECY -13-0075) in which the Commission approved publication of the proposed rule and the associated draft guidance for public comment, subject to listed comments and changes. *(See related story, this issue.)*

The staff is also seeking comments on developments that would affect the Low-Level

Radioactive Waste Regulatory Program in the next 5 to 7 years, including changes to the national landscape in the low-level radioactive waste area that would affect licensees and sited states in the context of safety, security, and the protection of the environment.

*For questions or additional information, please contact Melanie Wong of the NRC at (301) 415-2432 or at Melanie.Wong@nrc.gov or Tarsha Moon of the NRC at (301) 415-6745 or at Tarsha.Moon@nrc.gov.*

*NRC Regulatory Information Conference*

# NRC to Host 2014 Regulatory Information Conference

***March 11-13 in Bethesda, Maryland***

On January 9, 2014, the U.S. Nuclear Regulatory Commission announced that registration is now open for the 26th annual Regulatory Information Conference (RIC). The conference, which will be held from March 11-13, 2014, is jointly hosted by the NRC's offices of Nuclear Reactor Regulation and Nuclear Regulatory Research. It will be held at the Bethesda North Marriott Hotel located at 5701 Marinelli Road in Bethesda, Maryland.

More than 3,000 people are expected to attend the conference—including industry executives, representatives from state governments, non-governmental organizations, individual community members, and representatives from more than 30 foreign countries. The conference is free and open to the public, but registration is required. Conference agenda and online registration are now available on the NRC website at www.nrc.gov. The deadline for online registration was February 25, 2014.

"Our Regulatory Information Conference provides a valuable forum for exchanging information and ideas with our licensees, the public, international counterparts, non-governmental groups and others," said NRC Chairman Allison Macfarlane. "With our shared focus on the safety and security of radioactive materials, we all benefit from this conference."

The program features Chairman Macfarlane as the keynote speaker. Additional program highlights include plenary sessions with Commissioners Kristine Svinicki, George Apostolakis, William Magwood IV and William Ostendorff. The RIC plenary sessions will also include remarks by Mark Satorius, NRC's Executive Director for Operations. Eric Leeds, Director of the Office of Nuclear Reactor Regulation, will moderate a special plenary session with NRC senior managers and industry officials.

This year's RIC includes sessions on reactor operations, spent fuel storage, risk-informing regulations, computer modeling, facility security and many other topics.

Early registration is encouraged; however, onsite registration will also be available during the conference.

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

*Advisory Committee on Reactor Safeguards (ACRS)*

# ACRS Holds Public Meetings re Proposed Revisions to 10 CFR Part 61

On January 16, 2014, the U.S. Nuclear Regulatory Commission's (NRC's) Advisory Committee on Reactor Safeguards' (ACRS') Subcommittee on Radiation Protection and Nuclear Materials held a meeting to discuss the 10 CFR Part 61 rulemaking revisions and technical justifications. The purpose of the meeting was for the Subcommittee to gather information, analyze relevant issues and facts, and formulate proposed positions and actions, as appropriate, for deliberation by the Full Committee. The Subcommittee heard presentations by and held discussions with the NRC staff and other interested persons regarding this matter.

Shortly thereafter, on February 5, 2014, the full ACRS held a meeting to receive reports from the Subcommittee regarding proposed revisions to 10 CFR Part 61. The meeting was open to public attendance.

*Additional information can be found on the ACRS' meeting schedule website at http://www.nrc.gov/reading-rm/doc-collections/acrs/agenda/2014/.*

*For additional information, please contact Andrew Carrera, Health Physicist in the Division of Intergovernmental Liaison and Rulemaking of the Office of Federal and State Materials and Environmental Management, U.S. Nuclear Regulatory Commission, at (301)415-1078 or at Andrew.Carrera@nrc.gov.*

*U.S. Army Corps of Engineers and U.S. Nuclear Regulatory Commission*

# Final EIS Issued re Proposed South Carolina Reactors

On December 27, 2013, the U.S. Nuclear Regulatory Commission announced that agency staff has concluded that there are no environmental impacts to preclude issuing Combined Licenses (COLs) to build and operate two reactors at the proposed Lee Nuclear Station site in Cherokee County, South Carolina. The NRC developed the Lee project's Final Environmental Impact Statement (FEIS) jointly with the U.S. Army Corps of Engineers, Charleston District. The Corps will use the document's information in considering its federal permit decision in accordance with the Clean Water Act and Rivers and Harbors Act of 1899.

**Review Process**

Issuing the statement is part of the overall Lee COL review. NRC staff continues working on the Lee project's Final Safety Evaluation Report (FSER), which will include a review by the NRC's Advisory Committee on Reactor Safeguards ACRS—an independent group of nuclear safety experts. Once completed, the NRC's five Commissioners will conduct a separate mandatory hearing regarding the application and the staff's review.

While all of these review activities continue, a Commission Order from August 2012 directs the staff to hold off on any new reactor license decisions until completion of a rulemaking and environmental impact statement to update the waste confidence decision, which is expected by September 2014. If the rulemaking leaves any Lee-specific issues unresolved, those issues will be addressed separately. All of this work must be completed before the NRC can reach a final decision on the Lee application.

**Background**

On December 12, 2007, Duke Energy Carolinas submitted a COL application that seeks permission to construct and operate two AP1000 reactors at the Lee site near Gaffney, South Carolina. In December 2011, the NRC certified the AP1000 for use in the United States. Additional information on the design's certification review is available on the NRC website.

The NRC staff, in cooperation with the Corps, started the environmental review in March 2008 by gathering community input on what issues should be considered. The agencies gathered additional community comments in June 2010 and issued a draft EIS in December 2011. The agencies met with the local community again in January 2012 for additional comments.

The three-volume FEIS and Reader's Guide are also available via the NRC's electronic document database, ADAMS, under accession numbers ML13352A015 (the guide), ML13340A005, ML13340A006, and ML13340A007. The guide provides the public a general-language explanation of the proposed action and its potential environmental impacts, with computer hyperlinks to sections in the FEIS that can provide detailed analyses.

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

*Atomic Safety and Licensing Board (ASLB)*

# ASLB Holds Oral Argument on Dresden Confirmatory Order

On March 6, 2014, the Atomic Safety and Licensing Board (ASLB) heard oral arguments in Morris, Illinois involving a challenge to the U.S. Nuclear Regulatory Commission's October 2013 Confirmatory Order to the Dresden Nuclear Power Station. The ASLB is the independent body within the NRC that conducts adjudicatory hearings and renders decisions on legal challenges to licensing and enforcement actions.

The oral argument was open to public observation, but participation in the proceeding was limited to the parties: Local Union No. 15, International Brotherhood of Electrical Workers; Exelon, the plant owner; and the NRC.

The union is challenging the Confirmatory Order, which involves changes to Dresden's behavioral observation program. The NRC and Exelon used the Alternative Dispute Resolution process to formulate the program changes. The oral argument will examine whether the union has established a right to an evidentiary hearing on its challenge to the Confirmatory Order.

*Documents regarding this board's proceeding are available on the NRC's Electronic Hearing Docket by clicking on the folder entitled "Dresden_50-237&50-249-EA" on the left side of the page. More information about the role of the ASLB in the NRC's licensing and enforcement process is available on the NRC website at www.nrc.gov.*

*U.S. Environmental Protection Agency*

# EPA Seeks Comment re Environmental Radiation Protection Standards for Nuclear Power Operations (40 CFR 190)

On February 4, 2014, the U.S. Environmental Protection Agency (EPA) published an Advance Notice of Proposed Rulemaking (ANPR) in the *Federal Register* on "Environmental Radiation Protection Standards for Nuclear Power Operations" (40 CFR 190). The standards, which were issued in 1977, limit radiation releases and doses to the public from the normal operations of nuclear power plants and other uranium fuel cycle facilities—the facilities involved in the manufacture and use of uranium fuel for generating electrical power.

Since 1977, scientific understanding of radiation risk and dose to human health has advanced, and new nuclear technologies have emerged. These developments have led EPA to consider whether to revise the standards at 40 CFR 190. As a result, EPA published the ANPR and initiated a public comment period. The ANPR requests information on exposure limits, dose calculations, release limits for radioactive substances, spent fuel storage, protection of water resources, and environmental standards for new uranium fuel cycle technologies. The ANPR does not propose revisions to the current regulations, but is being issued only to collect information to support EPA's review.

Comments on the ANPR are due on or before June 4, 2014. To be considered, comments must be submitted in writing to the 40 CFR 190 Docket No. EPA-HQ- OAR–2013–0689.

*A copy of the ANPR is available at http://www.gpo.gov/fdsys/pkg/FR-2014-02-04/pdf/2014-02307.pdf.*

**Background**

EPA's mission is to protect human health and the environment. The Agency sets generally applicable environmental standards that limit the amount of radioactivity that can be released into the environment. EPA does not directly regulate the daily operations of nuclear power plants or nuclear fuel facilities. The Nuclear Regulatory Commission (NRC) has regulatory responsibility for licensing and oversight of nuclear power plants and other commercial facilities that use radioactive materials. NRC implements EPA standards at applicable facilities.

*For additional information and updates, please visit the EPA website at www.epa.gov/radiation/laws/190 or contact Brian Littleton at littleton.brian@epa.gov.*

***(Continued from page 1)***

- The Commission has approved staff's proposal to require a 10,000 year intruder assessment analysis, built upon the same assumptions as the compliance and protective assurance analyses contained in the rule, which should be detailed in guidance documents.
- The site-specific analysis for protection of the general public within the 1,000-year compliance period should set a specific dose limit of 25 mrem/yr.
- The staff should focus on ensuring a thorough review of the draft guidance by the limited community of disposal operations in the U.S. This includes the licensees, Agreement States, and interested public. The staff should also ensure the draft guidance is reviewed by the broader scientific and academic community and other government agencies with disposal experience.
- The proposed rule should clearly indicate that the intruder assessment should be based on intrusion scenarios that are realistic and consistent with expected activities in and around the disposal site at the time of site closure.
- A further protective assurance analysis should be performed for the period from the end of the compliance period through 10,000 years. Given the significant uncertainties inherent in these long timeframes, and to ensure a reasonable analysis, this performance assessment should reflect changes in features, events, and processes of the natural environment such as climatology, geology, and geomorphology only if scientific information compelling such changes from the compliance period is available. In general, this analysis should strive to minimize radiation dose with the goal of keeping doses below a 500 mrem/yr analytical threshold. The radiation doses should be reduced to a level that is reasonably achievable based on technological and economic considerations.
- The Commission has approved the staff's proposal for applicants to provide a qualitative analysis covering a performance period of 10,000 years or more after site closure to evaluate the ability of the disposal system to mitigate long-term risks associated with the disposal of long-lived low-level radioactive waste.
- The proposed rule should include a clear statement that licensing decisions are based on defense in depth (DID) protections, such as siting, waste forms and radionuclide content, engineered features, natural geologic features of the disposal site, and on performance assessment (PA) goals and insights, as well as scientific judgment. This combination of DID and PA should be identified as the "safety case" for licensing. The staff should clearly describe the attributes of the safety case in the proposed rule, as modified by this SRM, in terms of the types of DID protections and the role of the PA in satisfying performance criteria and establishing a safety case. Confirming changes should be made throughout the rulemaking package.
- The staff should develop a specific question for the *Federal Register* notice that introduces this proposed rule regarding whether the compatibility designations assigned to the various sections of the proposed rule as modified by this SRM are appropriate and solicit comments on whether changes should be considered and for what reason. Although the Commission has assigned Compatibility "B" for the Compliance Period and the Protective Assurance Analysis Period, the staff should specifically solicit comment on that designation. In addition, a question should be added to the *Federal Register* notice regarding whether 500 mrem/yr is an appropriate analytical threshold for the Protective Assurance Analysis period.
- The Advisory Committee on Reactor Safeguards (ACRS) is encouraged to continue to provide their independent review and recommendations on the technical basis supporting this rule, and the accompanying draft guidance, during the rulemaking period.
- The public comment period should be extended to 120 days.

- The revised *Federal Register* notice arising from the direction in the staff requirements memorandum should be provided to the Commission for its review no later than 10 business days prior to its transmittal for publication.

*For information related to Commission direction regarding specific changes to be made to the Federal Register notice and regulatory analysis, please refer directly to SRM-SECY-13-0075.*

**Background**

On July 18, 2013, NRC staff requested Commission approval to publish a proposed rule in the *Federal Register* that would amend 10 CFR Part 61. (See *LLW Notes,* July/August 2013, pp. 1, 32-38.)

The proposed amendments would revise 10 CFR Part 61 to require low-level radioactive waste disposal licensees and license applicants to conduct updated and new site-specific analyses and to permit the development of criteria for future low-level radioactive waste acceptance based on the results of these analyses. According to NRC staff, these amendments would ensure that low-level radioactive waste streams that are significantly different from those considered during the development of the current regulations will be disposed of safely and meet the performance objectives for land disposal of LLRW.

The proposed rule would update the existing technical analysis requirements for protection of the general population (i.e., performance assessment) to include a 10,000-year compliance period; add a new site-specific technical analysis for the protection of inadvertent intruders (i.e., intruder assessment) that would include a 10,000-year compliance period and a dose limit; add a new analysis for certain long-lived low-level radioactive waste (i.e., performance period analysis) that would include a post-10,000 year performance period; and revise the technical analyses required at closure.

NRC would also add a new requirement to develop criteria for the acceptance of low-level radioactive waste for disposal based on either the results of these technical analyses or on the existing low-level radioactive waste classification requirements. This would facilitate consideration of whether a particular disposal site is suitable for future disposal of depleted uranium (DU), blended low-level radioactive waste, or any other previously unanalyzed low-level radioactive waste stream. Additionally, the NRC is proposing amendments to facilitate implementation and better align the requirements with current health and safety standards. This rule would affect low-level radioactive waste disposal licensees and license applicants that are regulated by the NRC or the Agreement States.

*The proposed rule (SECY-13-0075) can be found in the NRC's Agency-wide Documents Access and Management System (ADAMS) using accession number ML13129A268. The following enclosures were submitted along with the proposed rule: a draft Federal Register notice (ML13129A262); draft regulatory analysis (ML13129A264); and, summary of stakeholder feedback (ML13129A266).*

*To locate the proposed rule and enclosures on NRC's web site, please go to www.nrc.gov and click on "Adams Public Documents" on the right-hand column. Then, click on "Begin Web-Based ADAMS Search." When you open that page, click on "Advance Search" tab near the top. Then, for "document properties" enter "Accession Number" as the property, "is equal to" as the operator, and the specific ML number for the desired document.*

*For additional information, please contact Andrew Carrera in the NRC's Office of Federal and State Materials and Environmental Management Programs at (301) 415-1078 or at Andrew.Carrera@nrc.gov.*

# Review Schedule Extended for Waste Confidence GEIS and Final Rule

On January 23, 2014, the U.S. Nuclear Regulatory Commission announced that the agency is revising its review schedule for the final versions of its Waste Confidence Generic Environmental Impact Statement (GEIS) and final rule on the extended storage of spent nuclear fuel at the nation's commercial nuclear power plants.

**Extended Review Schedule**

When the Commission directed the staff to develop the environmental study and regulation, it gave a deadline of September 2014. The new schedule envisions publication of the rule and GEIS no later than October 3, 2014. The delay reflects time lost during the government shutdown and lapse of appropriations last October. The shutdown led the agency to reschedule several public meetings and extend the public comment period on the draft versions of the GEIS and rule by nearly a month.

"Waste confidence remains a high agency priority," NRC Chairman Allison Macfarlane said. "Our staff will continue to work aggressively to meet its schedule milestones and come as close as possible to meeting the original deadline. However, it's important for the public and our licensees to know now that, due to unanticipated events, the staff may need some extra time to give the array of public comments the attention they deserve."

During the 98-day public comment period, the NRC held 13 public meetings nationwide to collect public comments on the draft environmental statement and rule. The agency also received more than 33,000 written comments.

**Background**

The proposed rule was published in the *Federal Register* on September 13 for public comment that was originally scheduled to last through November 27. Known as "waste confidence," the proposed rule would replace a similar provision in NRC's environmental regulations that was vacated last year by the U.S. Court of Appeals for the District of Columbia Circuit.

The rule does not authorize extended storage of spent fuel at reactor sites – a separate license is required for that. Rather, waste confidence is a generic finding of the environmental impacts of storing spent fuel for extended periods beyond the licensed operating life of reactors.

The Waste Confidence GEIS forms the regulatory basis for the proposed rule. The statement is available on the NRC's waste confidence webpage.

*Additional information on the Waste Confidence rulemaking and GEIS is available on the NRC's Waste Confidence website at http://www.nrc.gov/waste/spent-fuel-storage/wcd.html.*

*For additional information, please contact Sarah Lopas, NMSS/WCD, at (301) 287-0675 or at Sarah.Lopas@nrc.gov.*

# 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***

## Accessing LLW Forum, Inc. Documents on the Web

*LLW Notes,* LLW Forum *Contact Information* and the *Summary Report: Low-Level Radioactive Waste Management Activities in the States and Compacts* are distributed to the Board of Directors of the LLW Forum, Inc. As of March 1998, *LLW Notes* and membership information are also available on the LLW Forum website at www.llwforum.org. The *Summary Report* and accompanying Development Chart have been available on the LLW Forum website since January 1997.

As of March 1996, back issues of these publications are available from the National Technical Information Service at U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161, or by calling (703) 605-6000.


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**Rocky Mountain Compact**
Colorado
Nevada
New Mexico

*Northwest accepts Rocky Mountain waste as agreed between compacts*

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