LLW notes

Volume 28, Number 4 July/August 2013

U.S. Nuclear Regulatory Commission

NRC Staff Proposes Rule to Amend 10 CFR Part 61

On July 18, 2013, U.S. Nuclear Regulatory Commission 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."

The proposed rule (SECY-13-0075) can be found in the NRC's Agencywide 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).

Subsequently, by letter dated July 22, 2013, the Advisory Committee on Reactor Safeguards (ACRS) transmitted comments to NRC Chairman Allison Macfarlane on the staff's proposed draft rule. (See related story, this issue.)

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.

Summary

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

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In This Issue

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

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

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LLW Notes
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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.

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Key to Abbreviations

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

Low-Level Radioactive Waste Forum, Inc.

Register Now for Fall 2013 LLW Forum Meeting

Marriott Hotel in Park City, Utah: October 21-23, 2013

Register Now for Fall 2013 LLW Forum Meeting

Marriott Hotel in Park City, Utah: October 21-23, 2013

Interested stakeholders are encouraged to register at the earliest convenience for the fall 2013 meeting of the Low-Level Radioactive Waste Forum, Inc.—which will be held at the Marriott Hotel in Park City, Utah on October 22-23, 2013.

When making travel arrangements, please note that there will be an optional site tour of the EnergySolutions' Clive facility the afternoon of Monday, October 21, 2013—as well as a closed, members-only meeting of the LLW Forum's Board of Directors on Monday evening, October 21, for the receipt of a status report from the Disused Sources Working Group (DSWG).

The meeting documents 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 October 2013 LLW Forum meeting will be held in Park City, Utah on Tuesday, October 22, 2013, from 9:15 a.m.-5:30 p.m., and Wednesday, October 23, 2013, from 9:00 a.m.-1:00 p.m. (See below for information regarding the optional site tour of the Energy*Solutions'* Clive facility and closed meeting of the LLW Forum's Board of Directors—both scheduled for Monday, October 21, 2013.)

The meeting will be held at:

Park City Marriott Hotel
1895 Sidewinder Drive
Park City, Utah 84060

Located in the Prospector Square area of Park City amid the scenic backdrop of a mountain community, the Park City Marriott will host the LLW Forum Fall 2013 meeting. A complimentary local shuttle to the Utah Olympic Park, Factory Stores at Park City or Old Town Main Street services the hotel.

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 Rusty Lundberg at the State of Utah's Division of Radiation Control 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.)

Optional Site Tour

Meeting attendees are invited to participate in an optional tour of the Energy*Solutions* Clive facility the afternoon of Monday, October 21. The Clive facility is located approximately 80 miles west of Salt Lake City, just south of I-80. A bus will be provided by Energy*Solutions* and will leave from the Park City Marriott at noon and will make a stop at the SLC airport at about 1:00 p.m. and then proceed to the disposal site. Additional details will be provided.

Board of Directors' Meeting

There will be a closed meeting of the LLW Forum's Board of Directors on Monday evening, October 21. The purpose of the meeting, which is tentatively scheduled for 7:00 – 8:30 p.m., is to receive a status report from the Disused Sources Working Group (DSWG). Only designated state and compact officials may attend this closed session meeting.

Reservations

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

A limited block of hotel rooms has been reserved at a discount rate of $94, plus tax, for Sunday, October 20th for meeting attendees participating on the optional tour of Clive. A larger block of rooms at the same rate has been reserved for Monday, October 21 and Tuesday, October 22. The discount rate may be available, upon request, for 3 days prior to and 3 days following the meeting dates by contacting reservations supervisor Jeremy Pickett at (435) 615-4547.

To make a reservation, please call (435) 649-2900. The deadline for reserving a room at the discounted rate is September 18, 2013. ***Please ask for the Low-Level Radioactive Waste Forum block.***

Transportation and Directions

The Park City Marriott is located approximately 35 miles from the Salt Lake International Airport. The hotel does not provide shuttle service from and to the airport. However, shuttle service is available by reservation from Park City Shuttle (435-658-2227 or http://www.parkcityshuttle.com) or Park City Transportation (800-637-3803 or http://www.parkcitytransportation.com). One-way taxi fare is available for approximately $90.

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

Fall 2013 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.

2013 Meetings

The State of Utah, Division of Radiation Control, has agreed to co-host the fall 2013 meeting of the LLW Forum. The meeting will be held on October 22-23, 2013 at the Marriott facility in Park City, Utah. (See related story, this issue.) On the afternoon of October 21, there will be an optional site tour of the Energy*Solutions'* Clive facility for interested attendees as well. On the evening of October 21, there will be a closed, members-only meeting of the LLW Forum's Board of Directors for the receipt of a status report from the LLW Forum's Disused Sources Working Group (DSWG).

2014 Meetings

The State of Texas and Waste Control Specialists LLC (WCS) have agreed to co-host the spring 2014 meeting in Austin, Texas. There will be an optional site tour of the WCS facility for interested attendees as well. The meeting will be held at the Omni Hotel in Austin, Texas on March 17-18, 2014.

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 the State of Colorado in October 2014. The specific meeting dates and location are still being determined and will be announced once arrangements have been finalized.

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.

Central Midwest Interstate Low-Level Radioactive Waste Commission

Central Midwest Commission to Hold Annual Meeting

The Central Midwest Interstate Low-Level Radioactive Waste Commission will hold its annual meeting on September 10, 2013. The meeting—which will be held at the Illinois Emergency Management Agency (IEMA) office at 2200 S. Dirksen Parkway in Springfield, Illinois—is scheduled to begin at 9:30 a.m.

The following items are on the draft agenda for the meeting:

- Call to Order
- Adoption or Modification of the Agenda
- Election of Officers
- Adoption of Minutes of the Previous Meeting for September 14, 2012
- Executive Session
- First Public Comment Period
- Reports
  - Chairman and Host State Report
  - Executive Assistant Report
  - Investment Update
- Acceptance of Auditor's Report
- Adoption of Fiscal Year Budget
- Acceptance of Annual Report
- Other Business
  - Unfinished Business
  - New Business
- Second Public Comment Period
- Next Scheduled Meeting or Announcement of Special Meeting
- Adjournment

An agenda, kept continuously, is available by contacting the Commission's Office or visiting their web page.

For additional information, please contact Jennifer Rominger, Executive Assistant to the Central Midwest Commission, at (217) 836-3018 or at http://www.cmcompact.org/meetings.asp.

Northwest Compact / State of Utah

Proposed Changes to Utah Rules R313-25 & R313-14

Comment Period and Public Meeting

On August 2, 2013, the Utah Department of Environmental Quality (DEQ), Division of Radiation Control (DRC), announced the commencement of an informal public comment period regarding the proposed preliminary rule changes to R313-25, *License Requirements for Land Disposal of Radioactive Waste—General Provisions*, and R313-14, *Violations and Escalated Enforcement*.

Notice of the opening of the comment period was published on the DRC's webpage and via distribution by electronic mail server.

Public Comment Meeting

On August 13, 2013, an open-house style public meeting was held from 3:00 – 6:00 p.m. in DEQ Board Room 1015 at 195 North 1950 West in Salt Lake City to receive oral and written comments regarding the preliminary proposed changes.

Those interested in commenting may attend anytime during the meeting to provide comment.

Submitting Written Comments

Written comments will be accepted until the close of business on August 30, 2013. Written

comments should be directed by correspondence to the Utah DRC via

- mailing address at P.O. Box 144850, Salt Lake City, UT 84114-4850;
- street address at 195 North 1950 West, Salt Lake City, UT 84116; or,
- email to radpublic@utah.gov.

Comments sent via email should be identified by putting the following in the subject line: "Public Comment on Proposed Draft Radiation Control Rules."

Next Steps

All comments received within the informal comment period will be provided to the RCB for its consideration at a Board meeting on September 10, 2013. At that time, the Board will review and discuss comments received in order to prepare the proposed rule changes that will subsequently be issued for formal rulemaking and public comment.

Background

As a result of the passage of H.B. 124 (Radiation Control Amendments) during the 2013 General Session of the Utah Legislature, the Utah Radiation Control Board (RCB) is charged with establishing rules that address the licensing and permitting of low-level radioactive waste disposal as follows:

- categorize different levels of license and permit applications submitted to the DRC by a low-level radioactive waste disposal facility; and,
- set timeframes, based on the category, for the DRC to perform and complete the required application reviews and make a determination.

H.B. 124 also increased the maximum civil penalty for violations of state radiation control laws, rules, and enforceable administrative actions to $10,000 per violation. The Board is also proposing to amend the pertinent provisions of the existing radiation control rules addressing violations and enforcement to incorporate this statutory change.

During its July 2013 meeting, the Board discussed and developed proposed preliminary rule changes and determined to receive public comment on the preliminary changes.

Additional information on the proposed rule changes is available at http://www.radiationcontrol.utah.gov/Rules/scopingnotice.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

Comment Period re Modification to Clive Groundwater Discharge Permit

On August 1, 2013, the Utah Department of Environmental Quality, Division of Radiation Control (DRC), announced the commencement of a forty-five day public comment period regarding an initial decision by the DRC Director to amend the Energy*Solutions* Ground Water Quality Discharge Permit (No. UGW450005).

Notice of the Director's decision and opening of the comment period was published on the DRC's webpage and via distribution by electronic mail server. The notice was also placed in the *Salt Lake*

Tribune, the *Deseret News*, and the *Tooele County Transcript-Bulletin*.

The action is being taken under the authority of the Utah Water Quality Act, Section 19-5-104 (1)(i) Utah Code Annotated 1953, as amended, and the Utah Administration Code (UAC) R317-6.

Written comments will be accepted until the close of business on September 17, 2013. Written comments should be directed by correspondence to the Utah DRC via

- mailing address at P.O. Box 144850, Salt Lake City, UT 84114-4850;
- street address at 195 North 1950 West, Salt Lake City, UT 84116; or,
- email to radpublic@utah.gov.

Comments sent via email should be identified by putting the following in the subject line: "Public Comment on Energy*Solutions* Groundwater Permit modification."

The Statement of Basis (SOB) and draft Ground Water Quality Discharge Permit describing the Permit change(s) are available on the DRC website at:
www.radiationcontrol.utah.gov/EnSolutions/licamends.html

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.

Minor Amendment Approved re Clive 11e.(2) Byproduct Material License

By letter dated August 2, 2013, the Director of the Utah Division of Radiation Control (DRC) approved Amendment 10 to Energy*Solutions* 11e.(2) byproduct material (uranium mill tailings) Radioactive Material License UT 2300478. The minor amendment to License Condition 10.8(e) decreased the maximum volume of waste that may be stored as in-cell bulk waste from 40,000 cubic yards to 15,000 cubic yards.

In addition, the DRC made a minor change to License Condition 9.12. As written, License Condition 9.12 required the surety and standby trust agreement to be in favor of the Executive Secretary. Upon review, however, the DRC replaced "Executive Secretary" with "Director of the Utah Division of Radiation Control." This is consistent with the October 9, 2012 amendment to the Irrevocable Letter of Credit issued by Zions Bank, as well as changes to the state's Radiation Control Rules from passage of SB 21.

DRC determined that the changes to License to Condition 10.8(e) and 9.12 are minor, administrative in nature, to be consistent with Surety volumes submitted in the May 21, 2013 submittal, do not include monitoring, or sampling, and is a decrease in waste storage. Therefore, a public comment period is not required for this request.

Background

On May 21,2013, Energy*Solutions* submitted the 2013 Annual 11e.(2) Surety Review. The annual surety review letter included a request to revise the 11e.(2) Radioactive Material License UT 2300478.

DRC staff reviewed the request along with additional information provided in a letter dated July 17, 2013. Subsequently, on July 30, 2013, DRC staff conducted a site inspection.

DRC determined that Energy*Solutions* has less than 15,000 yd^3 of stored waste on site and could therefore act on the request to reduce the in-cell bulk storage limit in License Condition 10.8(e).

Copies of the Division of Radiation Control's cover letter, Statement of Basis, and amended license may be found at http://www.radiationcontrol.utah.gov/EnSolutions/docs/2013/Aug/ESAmend10Docs2.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.

Utah Radiation Control Board Holds July 2013 Meeting

Cancels Previously-Scheduled August Meeting

On July 9, 2013, the Utah Radiation Control Board held a regularly scheduled meeting in Conference Room 1015 of the Multi Agency State Office Building at 195 North 1950 West in Salt Lake City, Utah. The meeting—which was open to the public—began at 1:00 p.m.

The following items, among others, were on the July 2013 meeting agenda:

I. Welcome

II. Minutes **(Board Action)**
   a. Approval of the Minutes from the May 14, 2013 Board Meeting

III. Administrative Rule Changes
   a. Proposed rule change to R313-28-80 (Intraoral Dental Radiographic Systems) to allow portable handheld units **(Board Action)**

IV. Request for an Exemption to R313-35 by XOS **(Board Action)**

V. Administrative Rules
   a. H.B. 124 Rulemaking
      i. Status Report from Board Subcommittee
      ii. Board discussion

VI. Information Items
   a. Low-Level Radioactive Waste
      i. Sealed Source Variance – Update
      ii. Low-Level Radioactive Waste Forum. Fall 2013 Meeting – Park City, Utah (October 22-23, 2013)
   b. Other Division Items
      i. Second Quarter 2013 (April-June) Activities Summary
   c. NRC Activities
      i. Management Review Board (June 17, 2013) – Addressing the Periodic Meeting between NRC and the Division

VII. Public Comment

VIII. Next Scheduled Board Meeting: Tuesday, August 10, 2013, 1:00 p.m.
Multi Agency State Office Building
Conference Room 1015
195 North 1950 West
Salt Lake City, Utah

The Radiation Control Board canceled the subsequent meeting, which had previously been scheduled for August 13, 2013. The next meeting is scheduled to begin at 1:00 p.m. on September 10, 2013 in Conference Room 1015 of the Multi Agency State Office Building at 195 North 1950 West, Salt Lake City, Utah.

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.

Texas Low-Level Radioactive Waste Disposal Compact Commission

Comments Accepted re Texas Compact Commission Rules and White Paper

Import, Export, and Establishing the Generator of Low-Level Radioactive Waste

At a meeting on June 6, 2013, the Chairman of the Texas Low-Level Radioactive Waste Disposal Compact Commission (Texas Compact Commission) established the Rules Committee to review the existing rules under 31 TAC §675.21 (Exportation of Waste to a Non-Party State for Disposal), §675.22 (Exportation of Waste to a Non-Party State for Management or Processing and Return to the Party States for Management or Disposal in the Compact Facility) and §675.23 (Exportation and Importation of Waste) and to develop any proposed changes to the existing rules. In addition, the Rules Committee is reviewing the draft document titled, "White Paper – Establishing the Generator of Low-Level Radioactive Waste."

Comments on the existing rules and draft document to the Rules Committee were accepted from interested stakeholders until July 26, 2013.

For additional information, the Texas Compact Commission has provided links to the existing rules and draft document on its web site at http://www.tllrwdcc.org/rules/.

Background

On June 28, 2013, a planning meeting of the Rules Committee was held at the offices of the Texas Commission on Environmental Quality (TCEQ) in Austin, Texas. (See LLW Forum News Flash titled, "Texas Low-Level Radioactive Waste Compact Commission Rules Committee to Hold Organizational Meeting," June 26, 2013.) Members of the Rules Committee include Commissioners Linda Morris, Richard Saudek and Compact Commission Chairman Robert Wilson.

Accepting Comments

As per discussions during the meeting, which was open to the public, the Rules Committee invited all interested stakeholders to provide informal comments. The Rules Committee also accepted informal comment on the draft document titled, "White Paper – Establishing the Generator of Low-Level Radioactive Waste." The deadline for submitting comments on both documents was July 26, 2013.

Subject Rules and White Paper

31 TAC §675.21 31 TAC §675.21 establishes principles for the exportation of waste to a non-

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

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

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

White Paper The White Paper provides guiding principles for answering the question as to who is considered the waste generator when radioactive materials are to be disposed at the Compact Facility? This question is important for three reasons. First, Texas law specifies that waste from non-party states must pay a 20% surcharge when disposed at the Compact Facility. Second, Texas law specifies that no waste of international origin may be disposed at the Compact Facility. Third, the Texas Compact Commission is charged with protecting the disposal capacity for Texas and Vermont low-level radioactive waste generators. As drafted, the White Paper applies a different set of principles for use in determining who the waste generator is for purposes of disposal at the Compact Facility, based on whether the radioactive materials were acquired on or after April 27, 2012—the first operational year for the Compact Facility. *(See the White Paper for the bullet list of principles for each scenario.)* The White Paper does not address when a radioactive material is, or should be, declared waste—as that is a business decision that involves many economic and technical factors.

Next Steps

On August 7, 2013, the Rules Committee met to review any comments received and to move forward in the rulemaking process. The August 7th meeting was not open to the public, but a report of meeting activities was given at a Texas Compact Commission meeting in Austin, Texas on August 8, 2013.

Key to the rule development process will be seeking input to the Rules Committee deliberations prior to the development of a draft rule proposal; that draft would then be submitted

to the full Texas Compact Commission for its action prior to proposal in the *Texas Register*.

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 *or go to the Commission's website at* http://www.tllrwdcc.org/.

Texas Compact / State of Texas

Texas Compact Commission Holds August Meeting

On August 8, 2013, 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 amendment to agreement for importation of low-level radioactive waste from Bionomics, Inc.;
- consideration of and possible action on applications and proposed agreements for importation of low-level radioactive waste from University of Missouri; American Airlines; Constellation Nuclear Energy Group; Philotechnics Ltd.; PPL Susquehanna; Tennessee Valley Authority; and, Xcel Energy – Monticello;
- consideration of and possible action on petitions and proposed orders for exportation of low-level radioactive waste from Bionomics on behalf of Peloton Therapeutics; Bionomics on behalf of Presbyterian Hospital of Dallas, Texas; and, Bionomics on behalf of VA Medical Center in Houston, Texas;
- 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 and any other matter WCS wishes to bring to the attention of the Texas Compact Commission;
- discussion and possible action to renew or extend the contract with Leigh Ing as Consulting Executive Director and Audrey Ferrell as Executive Assistant;
- discussion and possible action to renew or extend the contract with digiTech Web Design for web development, maintenance and hosting services;
- update on activities of the Texas Compact Commission's Fiscal Advisory Committee related to funding of Commission activities and with the development of a budget for Commission operations during Texas fiscal year 2014 in connection with funds that are available for Commission operations during the upcoming 2014 fiscal year;

- consideration of and possible action to adopt the Texas Compact Commission's annual budget for fiscal year 2014 pursuant to Article VI, Section Two of the Commission's Bylaws;
- consideration and possible action with respect to banking resolutions;
- 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.

State of New York

New York State LLRW Status Report for 2012 Now Available

The twenty-seventh annual *New York State Low-Level Radioactive Waste Status Report* is now available. The report, which covers calendar year 2012, can be found on the New York State Energy Research and Development Authority's (NYSERDA's) web site at www.nyserda.ny.gov/llrw-reporting.

The New York State Low-Level Radioactive Waste Management Act (Chapter 673, Laws of 1986) requires facilities in the State that produce low-level radioactive waste to file annual reports with NYSERDA detailing the types and quantities of waste generated. The Act further requires NYSERDA to prepare an annual status report summarizing this information and to submit the report to the Governor and the New York State Legislature.

The 2012 Status Report provides data on the volume and activity of low-level radioactive waste shipped to out-of-state disposal sites and data on low-level radioactive waste stored at the end of the year pending disposal.

For additional information, please contact Alyse Peterson of NYSERDA at (518) 862-1090 ext. 3274.

Conference of Radiation Control Program Directors, Inc.

CRCPD Invites Nominations for the 2014 John C. Villforth Lecture Series

In mid-July 2013, the Conference of Radiation Control Program Directors, Inc. (CRCPD) announced that it is accepting nominations for the 2014 John C. Villforth Lecture Series that will be presented during the opening session (Monday—May 19, 2014) at the 46th National Conference on Radiation Control in Atlanta, Georgia.

The lecture series was established by the CRCPD Board of Directors to honor Villforth for his steadfast support of state radiation control agencies as working partners with the FDA/CDRH in the protection of the American people from unnecessary exposure to electronic product radiation, radioactive materials (especially radium), and protection of the environment from radioactive contamination, as well as for his strong support of the CRCPD in its early days of development. With this lecture series, CRCPD pays tribute "to a man with impeccable integrity, a person with outstanding leadership credentials, and a giant in the field of radiological health."

To assist with the nomination and selection process, CRCPD has posted the following information on its web site:

- a "Fact Sheet" that explains in detail the selection criteria and nomination process; and,
- a "Nomination Form" for actually submitting nominations to CRCPD.

CRCPD will reimburse travel expenses for the 2014 John C. Villforth Lecturer, in accordance with CRCPD policies and procedures. The individual will also be presented with a special plaque commemorating his or her participation in the Lecture Series.

Nominations are due no later than September 30, 2013.

The Fact Sheet may be found at at www.crcpd.org/Awards/FactSheet.Villforth.pdf. The Nomination Form may be found at www.crcpd.org/Awards/Nomination_Form_Villforth.pdf.

For additional information, please contact the CRCPD at (502) 227-4543 or at www.crcpd.org.

U.S. Congress

Annual Report to Congress Published re Nuclear Security Inspections

The U.S. Nuclear Regulatory Commission has made available to the public an unclassified version of its annual report to Congress detailing the previous year's security inspection program. The report is required under the Energy Policy Act of 2005.

The report covers the NRC's security inspection program, including force-on-force exercises, for commercial nuclear power plants and Category I fuel cycle facilities for calendar year 2012. "This report describes NRC's efforts to ensure the protection of the nation's nuclear power infrastructure against terrorist attacks," said NRC Chairman Allison Macfarlane. "The NRC is committed to ensuring the nation's commercial nuclear facilities continue to be safe and secure."

During 2012, the NRC conducted 173 baseline security inspections at commercial nuclear power plants and 23 force-on-force inspections, which use a well-trained mock adversary force to test a facility's security posture. These inspections identified 153 findings, of which 146 were of very low security significance and seven were greater than very low security significance. By comparison, there were 217 security inspections (193 baseline and 24 force-on-force) and 151 findings in 2011, of which 140 were of very low security significance and 11 of greater than very low security significance.

Whenever a finding is identified during a security inspection, the NRC ensures the issue is corrected immediately or compensatory measures are put in place, if necessary. Details of security findings are considered sensitive and not released to the public.

For additional information, please contact David McIntryre of the NRC at (301) 415-8200.

Nuclear Power Plants and Other NRC Licensees

News Briefs for Nuclear Power Plants Across the Country

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

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

Atlantic Compact/States of Connecticut and South Carolina

ABB Nuclear Fuel Facility On August 13, 2013, the U.S. Nuclear Regulatory Commission conducted a public meeting regarding the pending termination of the NRC license for a former nuclear fuel manufacturing facility owned by ABB Inc. in Windsor, Connecticut. During the meeting, interested stakeholders were provided an opportunity to ask questions and/or provide comments on decommissioning work at the site and the agency's reviews of those activities. An NRC decision to terminate the license will be based on the determination that: (1) NRC-licensed radiological materials and wastes have been properly disposed of; (2) a reasonable effort has been made to eliminate residual radioactive contamination; (3) a radiological survey has been conducted that demonstrates that the site is suitable for release in accordance with the agency's decommissioning criteria; and, 4) appropriate records have been received. ABB Inc. (formerly Combustion Engineering-Windsor) manufactured nuclear fuel at the site. Facilities at the site were also used at various times to conduct and support nuclear research and development work including the construction, testing and operation of a U.S. naval reactor. The activities began in the mid-1950s and continued until 2001. As a result of those activities, soils, buildings and equipment surfaces were contaminated with uranium and radioactive byproduct materials. The company submitted a site-wide decommissioning plan to the NRC in April 2003 and revised it in October 2003 to include dose-modeling information. Several buildings at the site were subsequently demolished and the resulting waste materials shipped to a licensed disposal facility. Completion of this phase of decommissioning allowed approximately half of the 600-acre site to be released for unrestricted use in 2009. Meanwhile, certain portions of the site were the responsibility of the U.S. Army Corps of Engineers under the Formerly Utilized Sites Remedial Action Program (FUSRAP) because radioactive contamination at the facility was caused by defense-related activities. In 2008 and 2010, ABB submitted decommissioning plan revisions that addressed the FUSRAP areas. The NRC approved the changes in 2009 and 2011, respectively. ABB then conducted the decommissioning activities under NRC oversight, which included on-site inspections. Site remediation work for the remainder of the facility was completed in December 2011. Post-decommissioning radiological checks have been conducted by ABB and reviewed by the NRC. The NRC's reviews have been coordinated with other federal and state agencies. In addition, the NRC performed independent measurements and sampling that confirmed ABB's sampling results. The decommissioning plan for the site and the results of the post-decommissioning confirmatory measurements and sampling are available in the NRC's ADAMS electronic documents system.

Oconee Nuclear Plant NRC has issued a Notice of Violation and a Confirmatory Order to Duke Energy Carolinas, LLC for failing to implement a license condition on fire protection at its Oconee

nuclear power plant in South Carolina. Oconee has three pressurized water reactors and is located about 30 miles west of Greenville. As part of transitioning the plant's fire protection program to the National Fire Protection Association Standard No. 805 under NRC regulations, Duke had committed through a license condition to complete installation and implementation of the protected service water system at Oconee by January 1, 2013. When Duke notified the NRC that it would miss the deadline and requested an extension, the NRC denied the request. Failure to complete the installation of the protected service water system is a significant regulatory concern to the NRC because proper installation would improve safety and reduce risk at the plant. Duke has increased compensatory fire protection measures that further ensure adequate safety at the plant while completing the upgrades. In March 2013, NRC staff held a pre-decisional enforcement conference with officials from Duke. During that session and a subsequent meeting, Duke agreed to a schedule that will complete Oconee's transition to the NFPA 805 standard by 2016, with several intermediate milestones that will provide safety enhancements before that date. Those milestones are spelled out in the Confirmatory Order issued July 1, and are now regulatory requirements as part of the Oconee operating license. The NRC staff determined that Duke's violation of its NFPA 805 license conditions was a Severity Level III violation, the second-lowest of four severity levels in the NRC enforcement process. Because Duke took corrective actions to commit additional resources and improve management of the project, implement compensatory measures and establish a new timeline for completing the transition to the NFPA 805 standard, no civil penalty will be assessed at this time. A civil penalty will be considered if Duke misses milestones established in the Confirmatory Order.

Central Interstate Compact/State of Louisiana

River Bend Nuclear Plant On August 27, 2013, NRC held an open house to discuss the agency's assessment of the River Bend nuclear power plant's 2012 safety performance. The plant is located in St. Francisville, Louisiana. During the open house, attendees were provided an opportunity to hold one-on-one discussions with NRC staff members about the plant's 2012 performance and the agency's oversight of the facility. NRC staff on hand included the inspectors assigned to the plant on a full-time basis, and staff from the Region IV office in Arlington, Texas. The assessment letter sent from the NRC to plant officials addresses the performance of the plant during 2012 and served as the basis for the discussion. Overall, the River Bend plant operated safely during 2012. At the conclusion of last year, all performance indicators and inspection findings for the facility were green, or of very low risk. As a result, River Bend will receive the NRC's normal level of oversight during 2013. *The most current assessment for River Bend is available on the NRC website at www.nrc.gov.*

Central Midwest Compact/State of Illinois

Honeywell Metropolis Uranium Conversion Plant After a thorough evaluation and inspection of plant modifications at the Honeywell uranium conversion plant, NRC staff has determined that the company may resume all NRC-licensed activities. "We have inspected the changes made by the company and found that the facility has taken the necessary actions to meet NRC requirements," said NRC Region II Administrator Victor McCree. "Honeywell has appropriately enhanced the plant's ability to withstand earthquakes and tornadoes." In October 2012, the NRC issued a confirmatory order to Honeywell describing the steps the company would have to

take before it could resume its uranium conversion operations. That order came after inspections earlier in 2012 identified concerns related to the likelihood of a release of uranium hexafluoride following an earthquake or tornado. The plant has been shut down since May 2012 and the company has been enhancing and modifying equipment to meet the requirements of that order. In June 2013, the NRC allowed the plant to begin limited operations. The Honeywell plant takes milled uranium and converts it into uranium hexafluoride. That compound is then processed at other facilities to make fuel for commercial power reactors.

Dresden Nuclear Plant The Dresden nuclear power plant will receive additional oversight from NRC due to an inspection finding involving the plant's failure to establish a procedure that would effectively address a flooding scenario. The finding—which has been determined to be white (low to moderate safety significance—was identified by NRC inspectors during one of the agency's extensive post-Fukushima reviews of U.S. reactors. The finding will result in the plant moving from the Licensee Response Column to the Regulatory Response Column of the NRC's performance Action Matrix. The NRC will conduct a supplemental inspection to make sure the company has understood the cause and extent of the problem and has taken sufficient corrective actions to prevent recurrence. "Protection against flooding at U.S. nuclear plants is one of the areas to receive additional focus from the NRC following the March 2011 events at the Fukushima Daiichi facility in Japan," said NRC Region III Administrator Charles Casto. "We will conduct reviews to make sure the flooding issue at the Dresden station has been addressed in a thorough and comprehensive manner." NRC inspectors determined that the company failed to establish a procedure addressing all of the effects of flooding on the plant from February 1991 to November 2012. Specifically, the existing procedure did not account for an effective way to add water to the reactor if the plant had a leak resulting in the lowering of the coolant level in the reactor during a severe flooding event. This situation could cause the coolant water in the reactor to become dangerously low. This issue is not a current safety concern since Exelon has revised the procedure and is now in compliance with NRC requirements. The Dresden plant is located in Morris, Illinois—approximately 25 miles southwest of Joliet—and is operated by Exelon Generation Co., LLC.

Midwest Compact/States of Minnesota and Wisconsin

American Engineering Testing, Inc. NRC has proposed a $7,000 civil penalty against American Engineering Testing, Inc., for a security-related violation found during a routine NRC inspection. The company is located in St. Paul, Minnesota, but the violation was identified at a facility located in Gary, Indiana. NRC conducted the inspection in April 2013. Once the violation of NRC requirements was identified, the company took immediate corrective actions to restore compliance. Details about security-related violations are not made public.

Monticello Nuclear Plant On July 9, 2013, NRC staff held an open house to discuss the agency's assessment of the Monticello nuclear plant's safety performance for last year. The plant is located in Monticello, Minnesota—approximately 30 miles northwest of Minneapolis. During the open house, attendees were provided an opportunity to hold one-on-one discussions with NRC staff members about the plant's 2012 performance and the agency's oversight of the facility. NRC staff on hand included the inspectors assigned to the plant on a full-time basis, and staff from the Region III Office in

Lisle, Ill. The assessment letter sent from the NRC Region III office to plant officials addresses the performance of the plant during 2012 and served as the basis for the discussion. Overall, the Monticello plant operated safely during 2012. At the conclusion of last year, all performance indicators and inspection findings for the facility were green, or of very low risk. As a result, Monticello will continue to receive the NRC's normal level of oversight during 2013. Among the areas of performance to be inspected this year by NRC specialists are activities associated with radiological safety, independent spent fuel storage, emergency preparedness and fire protection. *The most current performance assessment for Monticello is available on the NRC website at www.nrc.gov.*

Prairie Island Nuclear Plant On July 11, 2013, NRC held a public meeting to discuss the agency's annual safety assessment of the Prairie Island nuclear power plant. The two-unit plant is operated by Northern States Power Co.-Minnesota. It is located in Welch, Minnesota—approximately 28 miles southeast of Minneapolis. During the public meeting, NRC staff presented the results of the plant's 2012 annual assessment, talked about the NRC and its range of activities and was generally available to respond to questions and comments from the public. The NRC review concluded that Prairie Island Units 1 and 2 operated safely in 2012. The performance indicators for Unit 1 during 2012 were determined to be green. Unit 1 had one white inspection finding of low-to-moderate safety significance. The finding involved the failure of the plant to maintain an effective emergency plan by not prioritizing the repair of a high range vent gas radiation detector. Unit 2 had no findings but had one white performance indicator in the area of mitigating systems. Mitigating systems are made up of key pieces of equipment and specific systems that must be available and reliable when needed. As a result of this overall performance, the NRC will perform supplemental inspections for both white issues to make sure the plant understands the causes of these deficiencies and has taken effective short- and long-term corrective actions to prevent their recurrence. *The most current performance information for Prairie Island Unit 1 and Unit 2 is available on the NRC website at www.nrc.gov.*

SHINE Medical Technologies, Inc. On July 17, 2013, NRC held two public meetings in Janesville, Wisconsin to discuss the environmental review of an application by SHINE Medical Technologies Inc. for a permit to construct a facility to produce medical radioisotopes. During the meetings, NRC staff members presented an overview of the environmental review process and took comments from the public on the scope of issues that should be covered by the review. SHINE submitted a partial application for the facility on March 26, including its environmental report. The NRC staff has reviewed the partial application and concluded it is sufficient to docket and begin formal safety and environmental reviews. In separate notices published July 1 in the *Federal Register*, the NRC announced the docketing and its intention to prepare an environmental impact statement. SHINE submitted the remainder of the application May 31. Once the NRC determines that information is sufficiently complete, the agency will publish a notice of opportunity to request a hearing. SHINE proposes to produce molybdenum-99 using a particle accelerator to induce fission from low-enriched uranium without reaching criticality. Mo-99 is used in medicine to produce technecium-99m, an isotope used in thousands of diagnostic procedures annually in the United States. Comments on the scope of the environmental impact statement were accepted through August 30.

Northwest Compact/State of Washington

Columbia Generating Station NRC conducted a special inspection at the Columbia Generating Station to review a problem with a piece of equipment that provides cool air to a room housing important emergency electrical equipment. Energy Northwest operates the plant, which is located near Richland, Washington. During a recent inspection, the licensee discovered a large heat exchanger that provides cool air for a room housing electrical circuit breakers and safety-related batteries had not been properly maintained, reducing its capability. In the event of an emergency, a redundant system could have provided cooling and workers have taken corrective action to address maintenance issues. "The purpose of this special inspection is to better understand the sequence of events that contributed to the maintenance problem and review the licensee's corrective actions to ensure this cooling system will perform as intended," said Region IV Administrator Arthur Howell. NRC inspectors spent about a week onsite evaluating the licensee's root cause analysis and corrective actions. An inspection report documenting the team's findings will be publicly available within 45 days of the end of the inspection.

Southeast Compact/States of Alabama and Mississippi

Browns Ferry Nuclear Plant On July 24, 2013, NRC staff held a regulatory conference with the Tennessee Valley Authority to discuss the risk significance of an apparent violation related to the failure to properly implement a plant operating procedure at Browns Ferry nuclear plant. Browns Ferry, operated by the Tennessee Valley Authority (TVA), is located near Athens, Alabama—approximately 32 miles west of Huntsville. During the conference, NRC and TVA officials discussed the risk significance of the apparent violation, which occurred on December 22, 2012. TVA plant staff failed to properly implement a procedure while restoring power to the Unit 2 reactor protection system. The failure caused the reactor to shut down and also caused the main steam isolation valves to close. The main steam isolation valves are designed to close in the unlikely event of a rupture in the plant's steam pipes. Even though the unit was safely shut down and there was no threat to workers or people living near the plant, the NRC has preliminarily determined that the finding is white, meaning it has low to moderate safety significance. No decision on the final safety significance and any additional NRC actions were made at the conference. That decision will be announced at a later time. *The NRC inspection report with more details on the apparent violation is available on the NRC website at www.nrc.gov.*

Grand Gulf Nuclear Station On August 5, 2013, NRC staff held an open house to discuss the agency's assessment of the Grand Gulf Nuclear Station's 2012 safety performance. The plant is located in Port Gibson, Mississippi. During the open house, attendees were provided an opportunity to hold one-on-one discussions with NRC staff members about the plant's 2012 performance and the agency's oversight of the facility. The assessment letter sent from the NRC to plant officials addresses the performance of the plant during 2012 and served as the basis for the discussion. Overall, the Grand Gulf plant operated safely during 2012. At the conclusion of last year, all performance indicators and inspection findings for the facility were green, or of very low risk. In addition to the normal level of inspection for plants that are operating well, Grand Gulf will receive a supplemental inspection this year because of a white performance indicator it received following four unplanned reactor

shutdowns. *The most current assessment for Grand Gulf is available on the NRC website at www.nrc.gov.*

Southwestern Compact/State of California

Aerotest Research Reactor The NRC has directed the permanent closure of the Aerotest Radiography and Research Reactor due to the unresolved foreign ownership of the reactor's owner/operator, Aerotest. The facility—which is located in San Ramon, California—has been voluntarily shut down since October 2010. "The agency's Order prohibits Aerotest from operating the reactor in the future," said Roy Zimmerman, Director of the NRC's Office of Enforcement. "The NRC has also given Aerotest 30 days to provide an updated plan for properly managing the reactor fuel and other licensed material until it can be permanently disposed of, and for decommissioning the facility." The Aerotest facility was among the corporate assets the Swedish firm Autoliv bought in 2000, but a transfer of the reactor license was neither requested nor approved by the NRC prior to the purchase. After fully examining the available information, the agency determined Autoliv's ownership of Aerotest violated the Atomic Energy Act, which prohibits the NRC from issuing a license to any corporation or entity that is owned, controlled or dominated by a foreign corporation or a foreign government. In 2003, the NRC directed Autoliv to correct the situation. While several transfer attempts were underway, Aerotest continued to operate safely and applied for a renewed license in 2005. The transfer attempts have proven unsuccessful, and as a result the NRC has denied the license renewal request, leaving the facility in continued violation of the Atomic Energy Act's foreign ownership restrictions. Aerotest was provided 20 days to respond to the Order or request a hearing on the NRC's action. *The Order is available on the Enforcement section of the NRC's website, as well as in the agency's electronic document database, ADAMS, under accession number ML13158A164.*

State of Michigan

Palisades Nuclear Plant On July 16, 2013, NRC's Region III office held a webinar to discuss the agency's response to the leak from the safety injection refueling water tank that occurred May 5 at the Palisades nuclear plant near South Haven, Michigan. During the webinar, the office presented information about the NRC's close monitoring of the plant's actions to identify the source of the leak and conduct repairs to ensure the tank's safety going forward. The plant returned to service June 17 after the tank was repaired. NRC inspectors independently verified the condition of the tank before Palisades could start up. Even though there is no current evidence of leakage from the tank, NRC Resident Inspectors at the plant continue to monitor its condition through visual examinations and other reviews.

State of Nebraska

Fort Calhoun Nuclear Plant On July 24, 2013, NRC held a public meeting to discuss the agency's ongoing oversight and inspection activities at the Fort Calhoun nuclear plant. The plant—which is located 19 miles north of Omaha, Nebraska—is owned and operated by Omaha Public Power District (OPPD). Fort Calhoun has been shut down for a refueling outage prior to the 2011 Missouri River flooding, and remained shutdown to address a breaker fire and other restart complications. This meeting is one of a series the NRC is holding to keep the public informed about OPPD's effort to address performance issues. No restart decision was made at the meeting.

Constellation Energy Nuclear Group, LLC

NRC Staff Meets with Constellation re Performance of Nuclear Plant Fleet

On August 5, 2013, U.S. Nuclear Regulatory Commission staff met with senior management from Constellation Energy Nuclear Group, LLC to discuss topics related to the performance of the company's nuclear power plants. Constellation operates a fleet of nuclear power plants, including Calvert Cliffs in Lusby (Calvert County), Maryland; Ginna in Ontario (Wayne County), New York; and Nine Mile Point in Scriba (Oswego County), New York.

The purpose of this meeting, which took place at the Royal Sonesta Harbor Court Hotel in Baltimore, was for Constellation to brief the NRC on activities and licensing actions involving its plants. The meeting was classified as an NRC Category 1 meeting—a session with one company to discuss particular regulatory issues regarding specific facilities. Following the business portion of the meeting, members of the public were provided an opportunity to discuss with NRC staff Constellation's performance and the role of the NRC in ensuring safe plant operation. A portion of the meeting involving security issues was closed to public observation.

"We welcome the opportunity to hear from the company during this meeting about developments and issues – some of which are common in nature – affecting all of its plants. This maximizes our resources, as well as theirs," said NRC Region I Administrator Bill Dean.

Advisory Committee on Reactor Safeguards (ACRS)

ACRS Provides Comments re Part 61 Rulemaking Initiative

By letter dated July 22, 2013, the Advisory Committee on Reactor Safeguards (ACRS) transmitted comments to U.S. Nuclear Regulatory Commission Chairman Allison Macfarlane on the staff's proposed draft rule to revise 10 CFR Part 61 ("Licensing Requirements for Land Disposal of Radioactive Waste") and the associated draft implementation guidance.

A few days earlier, on July 18, 2013, NRC staff requested Commission approval to publish the proposed rule. (See related story, this issue.) If the Commission approves the document, it will be published in the *Federal Register* for formal public comment—which is expected to occur sometime later this year.

The ACRS letter can be found in ADAMS at www.nrc.gov using Accession Number ML13203A078.

Conclusions and Recommendations

In the July 22 letter, the ACRS offers the following conclusions and recommendations:

1. *The proposed rule significantly expands the regulatory requirements for the licensing of low-level waste facilities and increases regulatory burden without sufficient justification.*
2. *Our primary concerns about the proposed changes to 10 CFR Part 61 are the requirements to demonstrate compliance for 10,000 years and protection of the inadvertent intruder.*
3. *We plan to hold additional meetings to better understand the technical justification for the elements of concern in the proposed rule.*
4. *Previously disposed wastes should not be subjected to additional compliance evaluations as proposed by the staff.*

Discussion

ACRS states that its current conclusions and recommendations are supported by the committee's prior reports on this subject—dated March 18, 2010 and September 22, 2011—and by the following points:

1. *We agree with the need for requirements and strategies to protect from inadvertent intrusion. However, there are very large uncertainties about human intrusion scenarios for periods long after the cessation of institutional controls. Analysis of the durability of the measures chosen to provide intrusion protection (i.e., depth of disposal, barriers, waste form stability), as well as long-term stability of the site, should be considered sufficient to demonstrate compliance with the 10 CFR 61.42 performance objective for protection from inadvertent intrusion.*
2. *Introducing significant uncertainties to the performance analyses through speculation on human activities, waste and site performance, and earth processes for millenia is unlikely to improve either our decision making process or our understanding of the safety decisions regarding near surface LLW disposal.*
3. *Current regulations permit disposal of limited quantities and concentrations of long-lived radionuclides in near surface land disposal facilities. For example, three types of licensing decisions in the records of the NRC address disposal of uranium. These are uranium mill tailing remedial actions under 10 CFR Part 401, disposals approved under 10 CFR 20.20022, and license terminations under 10 CFR 20, Subpart E3. The analyses supporting these*

decisions used a period of 1000 years regarding the protection of individuals from the radioactive material. Additionally, the U.S. Department of Energy evaluates the disposal of uranium and other low-level wastes using similar evaluation methodologies (a performance assessment and intruder analysis) for a time of compliance of 1000 years.

4. *The staff stated that the four Performance Objectives, 10 CFR 61.41 through 61.44, have been consistently applied since promulgation of Part 61, and there are now 30 years of LLW disposal approved under these current Performance Objectives. Previously disposed wastes should not be subjected to additional compliance evaluations.*

Additional Comments

The July 22 letter included the following additional comment from ACRS Chairman J.S. Armijo:

I agree with the conclusions and recommendations of my colleagues. However, an additional matter should be considered in the current rulemaking. I believe that the root cause of the major issues discussed in our letter is the language in § 61.42, "Protection of individuals from inadvertent intrusion," of the existing rule:

> *"Design, operation, and closure of the land disposal facility must ensure protection of any individual inadvertently intruding into the disposal site and occupying the site or contacting the waste at any time after active institutional controls over the disposal site are removed."*

This broad and open ended language creates uncertainty regarding the intent of the NRC and requires clarification. When the rule was issued in 1982, the staff estimated the quantities and concentrations of the low level radioactive waste streams then contemplated for disposal, and provided the needed clarification in § 61.7(b)(5), "Concepts":

> *"Waste that will not decay to levels which present an acceptable hazard to an intruder within 100 years is designated as Class C waste. This waste is disposed of at a greater depth than the other classes of waste so that subsequent surface activities by an intruder will not disturb the waste. Where site conditions prevent deeper disposal, intruder barriers such as concrete covers may be used. The effective life of these intruder barriers should be 500 years. Waste with concentrations above these limits is generally unacceptable for near-surface disposal. There may be some instances where waste with concentrations greater than permitted for Class C would be acceptable for near-surface disposal with special processing or design. These will be evaluated on a case-by-case basis. Class C waste must also be stable."*

The clarifications provided in the existing rule resolved these uncertainties and allowed for safe and stable disposal for several decades.

In the current rulemaking the staff now contemplates the disposal of larger quantities of depleted uranium, is interpreting the language of § 61.42 much differently, and proposes the major changes discussed in our report. As interpreted and revised by the staff, § 61.42 can create a reasonable expectation by the public that class C waste such as uranium must be treated in a manner similar to high-level waste, and obligate licensees to demonstrate, and perhaps defend in court, that the protection of inadvertent intruders in near-perpetuity is assured. This is a requirement that is impossible to achieve by a technically defensible analysis or a near-surface disposal facility design. The language

in § 61.42 should be modified to be consistent with the clarifications in the existing rule and not as proposed by the staff.

Background

Prior ACRS Review During a meeting in early March 2010, the ACRS was first briefed on proposed amendments to Part 61 that addressed the disposal of depleted uranium. On March 18, 2010, the ACRS issued a report thereon. ACRS was then briefed on the staff's proposed Part 61 rulemaking during a meeting in July 2011. That proposed rulemaking introduced both an explicit site-specific performance assessment as well as an inadvertent intruder analysis requirement. During a meeting in September 2011, ACRS reviewed the proposed rulemaking and subsequently issued a report dated September 22, 2011. The report included the following recommendations:

1. *10 CFR 61 should not be amended in accordance with the staff's recommendations. Rather, the staff should develop a risk informed, performance based LLW site assessment methodology using realistic characterizations of disposed radioactive materials; the features, events, and processes that can disrupt disposed waste; natural and engineered barriers; environmental transport mechanisms; and subsequent human exposure scenarios.*
2. *Implementation guidance for Part 61 should not specify an a priori period of performance. Rather, the performance assessment should develop a period of performance based on the features, events and processes specific to the geohydrological features of a candidate site, the technologies used to isolate wastes, and the controls used to isolate wastes from the environment and humans.*
3. *The approaches in recommendations 1 and 2 are equally applicable to the disposal of depleted uranium as well as other low-level waste.*
4. *Compliance with performance objectives of the disposal system after the institutional control period ends, as well as the possible doses to hypothetical intruders, should be evaluated considering the natural features, events, and processes for a given site for a period of time commensurate with the risk for a specific facility and site.*

On January 19, 2012, the Commission issued a Staff Requirements Memorandum (SRM) providing direction to the staff to revise the proposed rulemaking and supporting regulatory basis. The SRM included the following issues for the staff to address in revising the performance assessment and intruder analysis requirements:

1. *Allowing licensees the flexibility to use ICRP dose methodologies in a site-specific performance assessment for the disposal of all radioactive waste.*
2. *A two tiered approach that establishes a compliance period that covers the reasonably foreseeable future and a longer period of performance that is not a priori and is established to evaluate the performance of the site over longer timeframes. The period of performance is developed based on the candidate site characteristics (waste package, waste form, disposal technology, cover technology and geo-hydrology) and the peak dose to a designated receptor.*
3. *Flexibility for disposal facilities to establish site-specific waste acceptance criteria based on the results of the site's performance assessment and intruder assessment.*

The SRM also included a fourth direction requiring the staff to address the Agreement State compatibility categories for the revised requirements. ACRS has not reviewed the information addressing Agreement State compatibility.

NRC Preliminary Document On July 1, 2013, in preparation for an ACRS briefing on July 10, NRC staff released a preliminary document regarding the proposed rulemaking to modify portions of 10 CFR Part 61. (See related story, this issue.)

The proposed rule would affect existing and future low-level radioactive waste (LLRW) disposal facilities that are regulated by the NRC or an Agreement State. In particular, NRC is proposing to amend its regulations that govern LLRW disposal facilities to require new and revised site-specific technical analyses, to permit the development of criteria for LLRW acceptance based on the results of these analyses, and to facilitate implementation and better align the requirements with current health and safety standards.

The NRC considered a number of options in developing this proposed rule. In the end, the agency decided that requiring site-specific technical analyses for all LLRW inventories would be the most comprehensive approach. This approach would ensure that as LLRW streams are generated, analyses would be performed to determine if the performance objectives would be met for disposal of all isotopic concentrations and volumes of LLRW. Under the proposed rule, all sites would be required to complete performance assessments and intruder assessments for the compliance period. In addition, land disposal sites with long-lived LLRW would be required to complete performance period analyses.

For the NRC licensees and license applicants, the rule would become effective 1 year after the final rule is published in the *Federal Register*. The Agreement States will have 3 years from the published date of the *Federal Register* notice for the final rule to adopt compatible regulations.

To locate the ACRS letter and/or NRC staff's preliminary Part 61 document 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 ML number "ML13203A078" for the ACRS letter and "ML13179A321" for the preliminary document as the value.

For additional information on the preliminary document, please contact Andrew Carrera of the NRC's Office of Federal and State Materials and Environmental Management Programs (FSMEMP) at (301) 415-1078 or at Andrew.Carrera@nrc.gov or Gary Comfort of NRC's FSMEMP at (301) 415-8106 or at Gary.Comfort@nrc.gov.

ACRS Plant Operations and Fire Protection Subcommittee Meets

On July 24, 2013, the Plant Operations and Fire Protection Subcommittee of the Advisory Committee on Reactor Safeguards (ACRS) was briefed by NRC Region I Office staff on a variety of topics during a public meeting in King of Prussia, Pennsylvania.

Topics covered during the meeting included, among other things, flooding and seismic hazard inspections performed by Region I staff; fire-protection program issues at Region I plants; and, the Region I staff response to Hurricane Sandy and other recent major weather-related events. The agenda for the meeting can be found on the ACRS website.

The ACRS is an independent body of experts that performs reviews of, and advises the NRC on, a wide range of nuclear safety matters. Areas of expertise possessed by members of the ACRS include nuclear, mechanical, civil and electrical

engineering; risk assessment; chemistry; materials science and metallurgy; and, thermal hydraulics and heat transfer. Additional information about the ACRS is available on the agency's website.

For additional information, please contact Dianne Screnci of the NRC at (610) 337-5330 or Neil Sheehan of the NRC at (610) 337-5331.

U.S. Environmental Protection Agency

Comment Deadline Extended re Proposed Rule to Update EPA's Protective Action Guides Manual

On July 9, 2013, the U.S. Environmental Protection Agency extended the deadline for accepting comments on a proposed rule to update the Protective Actions Guides and Planning Guidance for Radiological Incidents (PAGs Manual). Comments on the proposed rule to update the guide, which includes a section specifically on waste management, will now be accepted until September 16, 2013.

For additional information, including links to the proposed rule language, please go to http://www.epa.gov/radiation/rert/pags.html.

Summary

As part of its mission to protect human health and the environment, EPA publishes protective action guides to help federal, state, local and tribal emergency response officials make radiation protection decisions during emergencies. EPA, in coordination with a multi-agency working group within the Federal Radiological Preparedness Coordinating Committee (FRPCC), is proposing updates to the 1992 Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, referred to as "The 1992 PAG Manual" (EPA 400-R-92-001, May 1992).

The updated guidance in this revised 2013 PAG Manual – Protective Action Guides and Planning Guidance for Radiological Incidents ("2013 PAG Manual" hereafter) applies the PAGs to incidents other than just nuclear power plant accidents, updates the radiation dosimetry and dose calculations based on current science and incorporates late phase guidance.

While there is no drinking water PAG provided in the proposal, the agency continues to seek input on this. The newly proposed 2013 PAG Manual is available for interim use and review at www.regulations.gov.

Content

Authority The historical and legal basis of EPA's role in the 2013 PAG Manual begins with Reorganization Plan No. 3 of 1970, in which the Administrator of EPA assumed all the functions of the Federal Radiation Council (FRC), including the charge to "…advise the President with respect to radiation matters, directly or indirectly affecting health, including guidance for all federal agencies in the formulation of radiation standards and in the establishment and execution of programs of cooperation with states."

Recognizing this role, FEMA directed EPA in their Radiological Emergency Planning and Preparedness Regulations to "establish Protective Action Guides (PAGs) for all aspects of radiological emergency planning in coordination with appropriate federal agencies." FEMA also tasked EPA with preparing "guidance for state and local governments on implementing PAGs, including recommendations on protective actions which can be taken to mitigate the potential radiation dose to the population." All of this information was to "be presented in the Environmental Protection Agency (EPA) 'Manual of Protective Action Guides and Protective Actions for Nuclear Incidents.'"

Additionally, section 2021(h) charged the Administrator with performing "such other functions as the President may assign to him [or her] by Executive order." Executive Order 12656 states that the Administrator shall "[d]evelop, for national security emergencies, guidance on acceptable emergency levels of nuclear radiation…." EPA's role in PAGs development was reaffirmed by the *National Response Framework, Nuclear/Radiological Incident Annex* of June 2008.

Overview The 2013 PAG Manual provides federal, state and local emergency management officials with guidance for responding to radiological emergencies. A protective action guide (PAG) is the projected dose to an individual from a release of radioactive material at which a specific protective action to reduce or avoid that dose is recommended. Emergency management officials use PAGs for making decisions regarding actions to protect the public from exposure to radiation during an emergency. Such actions include, but are not limited to, evacuation, shelter-in-place, temporary relocation, and food restrictions.

Development of the PAGs was based on the following essential principles, which also apply to the selection of any protective action during an incident:

- prevent acute effects;
- balance protection with other important factors and ensure that actions result in more benefit than harm; and,
- reduce risk of chronic effects.

The 2013 PAG Manual is not a legally binding regulation or standard and does not supersede any environmental laws; PAGs are not intended to define "safe" or "unsafe" levels of exposure or contamination. This guidance does not address or impact site cleanups occurring under other statutory authorities such as the EPA Superfund program, the U.S. Nuclear Regulatory Commission's (NRC's) decommissioning program, or other federal or state cleanup programs. As indicated by the use of non-mandatory language such as "may," "should" and "can," the 2013 Manual only provides recommendations and does not confer any legal rights or impose any legally binding requirements upon any member of the public, states, or any other federal agency. Rather, the 2013 PAG Manual recommends projected radiation doses at which specific actions may be warranted in order to reduce or avoid that dose. The 2013 PAG Manual is designed to provide flexibility to be more or less restrictive as deemed appropriate by decision makers based on the unique characteristics of the incident and the local situation.

Updates The draft updates to the 1992 PAG Manual were developed by a multi-agency Subcommittee of the Federal Radiological Preparedness Coordinating Committee (FRPCC) and are published by EPA with concurrence from the Department of Energy (DOE); the Department of Defense (DoD); the Department of Homeland Security (DHS), including the Federal Emergency Management Agency (FEMA); the Nuclear Regulatory Commission; the Department of Health and Human Services (HHS), including both the Centers for Disease Control (CDC) and the Food and Drug Administration (FDA); the U.S. Department of Agriculture (USDA); and, the Department of Labor (DOL).

The 2013 PAG Manual focuses on the following key objectives:

- Clarify that the 1992 PAGs and protective actions are useful for all radiological and nuclear scenarios of concern, based both on the 1991 symposium, "Implementation of Protective Actions for Radiological Incidents at Other Than Nuclear Power Reactors," and the 2008 interagency "Planning Guidance for Protection and Recovery Following Radiological Dispersal Device (RDD) and Improvised Nuclear Device (IND) Incidents."

- Refer the reader to DOE's Federal Radiological Monitoring and Assessment Center (FRMAC) Assessment Manuals for calculation methods and measurable derived response levels (DRLs) and other appropriate dose assessment methods so that PAGs are implemented using the latest science.

- Refer users to the current Food PAGs published in FDA's "Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendations for State and Local Agencies," as issued in 1998.

- Recommend a simplified PAG approach for administering potassium iodide (KI) as a supplementary protective action based on FDA guidance issued in 2001.

- Provide basic planning guidance on reentry, cleanup and waste disposal.

- Substantively incorporate the 2008 "*Planning Guidance for Protection and Recovery Following Radiological Dispersal Device (RDD) and Improvised Nuclear Device (IND) Incidents*" particularly for late phase cleanup after a nationally significant radiological incident, like a disaster at a NPP, an RDD or an IND. The 2008 RDD-IND Planning Guidance will remain in effect until the PAG Manual, with public comments incorporated, is finalized for use.

- Streamline the Manual to enhance usability, while retaining the 1992 PAG Manual in its entirety as a historical online reference.

Submitting Comments

Comments must be received on or before September 16, 2013.

How to Submit Comments Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2007-0268, by one of the following methods:

- www.regulations.gov: Follow the on-line instructions for submitting comments.

- Email: Submit comments to a-and-r-docket@epa.gov; Docket ID No. EPA-HQ-OAR-2007-0268.

- Fax: Submit comments by facsimile to (202) 566-1741.

- Mail: Submit comments by mail to Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 6102T, 1200 Pennsylvania Ave., NW, Washington, DC 20460.

Specific Comments Being Sought While all comments regarding any aspect of the 2013 PAG Manual are welcome, comments on the following issues are specifically requested:

Issues across the scope of the entire 2013 PAG Manual:

- To implement the PAGs, the reader is referred to dose calculations in the Federal Radiological Monitoring and Assessment Center (FRMAC) Assessment Manuals. The Assessment Manuals are updated with current International Commission on Radiological Protection (ICRP) dosimetry models (i.e., ICRP 60 series) and dose coefficients. The FRPCC also encourages the use of computational tools such as DOE's Turbo FRMAC, RESRAD RDD and NRC's RASCAL or other appropriate tools and methods to implement the PAGs. EPA is requesting comment on the usefulness of this approach and seeks feedback on how to facilitate implementation of these methods in emergency management plans.

- The agency recognizes a short-term emergency drinking water guide may be useful for public health protection in light of the Fukushima nuclear power plant accident,

which impacted some Japanese drinking water supplies. Input on the appropriateness of, and possible values for, a drinking water PAG is being sought.

- FDA's 1998 food guidance is incorporated by reference. Since it is already final and published, comments are not requested on the Food PAGs.

Chapter 2-Early Phase:

- The most substantive PAG change in the Early Phase is the 2001 guidance from the FDA that lowers the threshold for administration of potassium iodide (KI) to the public from 25 rem projected adult thyroid dose to 5 rem projected child thyroid dose. Chapter 2 includes a streamlined implementation scheme based on FDA's guidance. EPA is seeking comment on the usefulness of this simplified guidance in the text of Chapter 2.

- The skin and thyroid evacuation thresholds were removed to avoid confusion with the KI threshold. The skin and thyroid doses were 5 and 50 times higher, respectively, than the 1 to 5 rem whole-body dose guideline. EPA is specifically seeking comment on the appropriateness of not retaining the skin and thyroid evacuation thresholds.

Chapter 3 - Intermediate Phase:

- The most substantive PAG change in the Intermediate Phase is the removal of the 5 rem over 50 years relocation PAG which was potentially being confused with long term cleanup. EPA requests comment on the appropriateness of this change.

- As an extension of the PAGs, new guidance on reentry to relocation areas is provided to inform plans and procedures to protect workers and members of the public as the Intermediate Phase progresses. The agency is seeking comment on the format and utility of this material.

- EPA is also asking stakeholders to comment on whether it would be useful to develop a new, combined Intermediate Phase PAG considering all exposure pathways to potentially simplify decision making.

Chapter 4 – Late Phase:

- A brief planning guidance on the cleanup process is included. EPA requests comment on the usefulness of this information, as well as how it might best be implemented in state, tribal and local plans. It should be noted that the extent and scope of contamination as a result of an NPP, RDD or IND incident may be at a much larger scale than a site or facility decommissioning or remedial cleanup normally experienced under established regulatory frameworks. Lesser radiological incidents may be well addressed under existing emergency response and environmental cleanup programs.

- A suggested process and organization for approaching the late phase cleanup is provided from the 2008 RDD-IND Planning Guidance. EPA requests comment on the merging of that guidance with the 2013 PAG Manual.

Basic planning guidance on approaching radioactive waste disposal is included. The agency is seeking comment on this material and how it should be implemented in emergency response and recovery plans at all levels of government.

After considering public comments as appropriate, EPA intends to issue a final PAG Manual which will supersede the 1992 PAG Manual and the 2008 RDD-IND Planning Guidance.

Additional information, including links to the proposed rule language, may be found at http://

www.epa.gov/radiation/rert/pags.html.

For additional information, please contact Sara DeCair of the Radiation Protection Division, Center for Radiological Emergency Management, U.S. Environmental Protection Agency, at (202) 343-9108 or at decair.sara@epa.gov. You may also contact Dan Schultheisz of the Center for Waste Management and Regulation, Office of Air and Radiation, Office of Radiation and Indoor Air, U.S. Environmental Protection Agency, at (202) 343-9349 or at schultheisz.daniel@epa.gov.

(Continued from page 1)

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.

Discussion

The staff is proposing amendments to 10 CFR Part 61 to add new definitions and concepts, require low-level radioactive waste disposal licensees and license applicants to conduct updated and new site-specific technical analyses, as well as develop site-specific low-level radioactive waste acceptance criteria, and introduce amendments to facilitate implementation and better align the requirements with current health and safety standards.

Site-Specific Technical Analyses The site-specific technical analyses required by the proposed amendments would include:

- an updated analysis to demonstrate protection of the general population, called a performance assessment, which would use a defined compliance period;
- a new analysis to demonstrate protection of inadvertent intruders, called an intruder assessment, which would also use a defined compliance period; and,
- new performance period analyses to evaluate how the disposal system could mitigate the risk from the disposal of long-lived low-level radioactive waste after the expiration of the compliance period.

The site-specific technical analyses would also need to be included with any application to amend the license for closure.

Compliance and Performance Periods The staff is recommending a two-tiered approach for the analysis with a "compliance period within 10,000 years" and a "performance period of 10,000 or more years." In the compliance period analysis, the licensee would demonstrate

compliance with the performance objectives, and during the performance period, the licensee would demonstrate how the facility design will mitigate the long-term impacts. In the performance period analyses, the licensee would also communicate the uncertainties associated with disposing of long-lived low-level radioactive waste. The performance period analyses may identify the need to limit the disposal materials in the future to ensure proper management of these uncertainties. The staff's recommended elements for this approach are the following:

- a compliance period within 10,000 years; and,
- analyses for 10,000 or more years following closure of the disposal facility that demonstrates releases will be minimized to the extent reasonably achievable, as an indicator of long-term facility performance.

The staff proposes that performance period analyses be required to consider the uncertainties associated with the disposal of long-lived low-level radioactive waste streams and evaluate how the disposal system could mitigate the risk from the disposal of long-lived low-level radioactive waste. The performance period analyses, which would be required by proposed 10 CFR 61.13(e), would also help determine whether limitations on the disposal of some low-level radioactive waste streams at certain sites might be needed to properly manage the disposal of low-level radioactive waste. The performance period analyses only apply for disposal sites containing long-lived radionuclides exceeding concentrations listed in the proposed Table A of 10 CFR 61.13(e) or if necessitated by site-specific conditions. The staff is proposing requirements that would update the terminology and specify updated requirements for a performance assessment, and add a new requirement—a site-specific intruder assessment which would include a proposed annual dose limit of 5 mSv/yr (500 mrem/yr) as specified in 10 CFR 61.13, "Technical analyses." Once completed, the licensee would develop site-specific acceptance criteria for future shipments based on the existing low-level radioactive waste classification system or on the technical analyses prepared in accordance with the proposed rule, as required by the new requirements proposed in 10 CFR 61.58, "Waste acceptance." The staff is also proposing corresponding changes to Appendix G of 10 CFR Part 20, "Standards for Protection Against Radiation," to be consistent with the new requirements in 10 CFR 61.58. In addition, the staff is proposing an amendment to 10 CFR 61.28, "Contents of application for closure," to require licensees to include updated site-specific analyses in their applications to amend their licenses for closure to provide greater assurance of compliance with the performance objectives of 10 CFR Part 61, Subpart C, and to enhance the safe disposal of low-level radioactive waste.

Draft Guidance Document and Regulatory Analysis NRC staff plans to publish a draft NUREG guidance document, "Guidance for Conducting Technical Analyses for 10 CFR Part 61" (ADAMS Accession No. ML13112A282), for public comment concurrently with the publication of the proposed rule. Once issued in final form, the guidance document will supplement existing guidance on performance assessment and provide guidance on the new requirements that would be added to 10 CFR Part 61 by this rulemaking. If approved by the Commission, staff also plans to publish a draft regulatory analysis for public comment concurrently with the proposed rule.

Comparison of Alternatives re Blended Wastes The Commission approved Option 2 in SECY-10-0043, "Blending of Low-Level Radioactive Waste," dated April 7, 2010 (ADAMS Accession No. ML090410246), in which the staff proposed that "…disposal of blended ion exchange resins from a central processing facility would be compared to direct disposal of the resins, onsite storage of certain wastes when disposal is not possible and further volume reduction of the Class B and Class C concentration resins." The staff addressed this comparison of alternatives in the form of a comparative environmental evaluation of the specified ion exchange resin low-level radioactive waste handling options. A draft report

on this comparative evaluation was completed in September 2012 and was made available for public comment in a separate notice (77 *Federal Register* 58416) because the analysis is not related to the 10 CFR Part 61 rulemaking action as currently proposed by the staff. The public comment period on the draft report ended on January 18, 2013, and the staff is currently in the process of responding to the 60 comments received and preparing the final report.

Greater-Than-Class C Concentrations In SRM-SECY-10-0043, the Commission stated, "The staff should not include waste at Greater-Than-Class C (GTCC) concentrations in the scope of this rulemaking; GTCC waste is a Federal responsibility and these volumes should not be made into a State responsibility, even if the waste has been blended into a lower classification." Consistent with 10 CFR Part 20, Appendix G, Section I.C.12, low-level radioactive waste is not required to be classified until it is shipped for disposal (i.e., consigned to a low-level radioactive waste disposal facility). Low-level radioactive waste classified as GTCC low-level radioactive waste cannot be disposed of in a facility licensed to receive only Class A, Class B, or Class C low-level radioactive waste, unless specifically authorized by the regulatory authority. For these reasons, the staff has not specified new requirements for disposal of GTCC low-level radioactive waste within the scope of this rulemaking. In addition, the staff believes the amount of blendable low-level radioactive waste at GTCC concentrations to be small in any case. Licensees avoid producing ion exchange resins (the principal blendable low-level radioactive waste stream that could reach GTCC levels) at these concentrations because of the difficulty of disposing of them.

Stakeholder Input

Prior Stakeholder Feedback NRC staff states that, in developing the proposed rule, agency staff has had considerable public interactions, including licensees, disposal site operators, Agreement States, and the Advisory Committee on Reactor Safeguards (ACRS). An overview of the public interactions and feedback on the 10 CFR Part 61 preliminary proposed rule documents, including feedback from the ACRS and the Agreement States, can be found in Enclosure 3—*Summary of Public and Advisory Committee on Reactor Safeguards (ACRS) Interactions and Comments Received in Response to Preliminary Documents for Low- Level Radioactive Waste Disposal (10 CFR Part 61) Rulemaking.*

Opportunity for Comment Staff is proposing that interested stakeholders be provided 75 days to comment on the proposed amendments. In Enclosure 2, the *Federal Register* notice for the proposed rule, the staff has included a request for specific comments on the cost estimates provided in the regulatory analysis, and any potential unintended consequences of the proposed rule. The staff is also publishing draft guidance for public comments along with the proposed rule. In addition, the staff plans to conduct at least one public meeting on the proposed rule during the comment period.

Compatibility Issues

NRC staff is proposing Agreement State compatibility designations for the newly proposed sections of 10 CFR Part 61 and is proposing to modify the designations for a number of existing sections. The proposed Agreement State compatibility designations are discussed in detail in Section VI of the draft *Federal Register* notice for the proposed rule. The Standing Committee on Compatibility reviewed the proposed rule and agreed that these amendments to the NRC regulations are a matter of compatibility between the NRC and the Agreement States. The Committee agreed with the staff's proposed compatibility designations.

One particular compatibility designation proposed by the staff is for the development of low-level radioactive waste acceptance criteria in 10 CFR

61.58. The staff recommends that 10 CFR 61.58 be designated as Compatibility Category C. As a Compatibility Category C designation, the Agreement State would have to adopt all the essential objectives of the section but could also impose more stringent requirements. The staff notes that, if the Commission approves the staff's recommendation with 10 CFR 61.58 designated as Compatibility Category C, the Commission direction outlined in SRM-COMWDM-11-0002/ COMGEA-11-0002 would allow licensees the flexibility to base low-level radioactive waste acceptance criteria on the technical analyses developed for 10 CFR 61.13 or on the classification tables. The expectation is that the Agreement States would preserve the flexibility in implementing this provision; however States are allowed to develop the language in their compatible regulations which may include decreased flexibility.

Background

In the adjudicatory proceeding for the Louisiana Enrichment Services license application, the Commission, as part of Order CLI-05-05, dated January 18, 2005, determined that DU waste is properly classified as low-level radioactive waste. Although the Commission stated that a literal reading of the current 10 CFR 61.55(a)(6) would render DU low-level radioactive waste a Class A low-level radioactive waste, it acknowledged that in creating the low-level radioactive waste classification tables in 10 CFR 61.55, "Waste Classification," the NRC did not explicitly analyze the disposal of large quantities (greater than 629,000 megabecquerel (17 curies)) of DU low-level radioactive waste that might result from commercial uranium enrichment. Because of this omission, in Order CLI-05-20, dated October 19, 2005, the Commission directed the staff, outside of the adjudication, to consider whether the potential quantities of DU low-level radioactive waste generated by commercial uranium enrichment facilities warranted amending 10 CFR 61.55(a)(6) or the 10 CFR 61.55(a) LLRW classification tables.

Based on the direction in Order CLI-05-20, NRC staff performed a technical analysis to evaluate the impacts of near-surface disposal of large quantities of DU low-level radioactive waste. The staff submitted the results of this analysis to the Commission in SECY-08-0147, "Response to Commission Order CLI-05-20 Regarding Depleted Uranium," dated October 7, 2008 (ADAMS Accession No. ML081820762). The paper presented four options that staff concluded would facilitate safe disposal of large quantities of DU low-level radioactive waste.

In the staff requirements memorandum for SECY-08-0147, "Response to Commission Order CLI-05-20 Regarding Depleted Uranium," dated March 18, 2009 (ADAMS Accession No. ML090770988), the Commission approved the staff's recommendation to:

- proceed with rulemaking in 10 CFR Part 61 to specify a requirement for an updated site-specific technical analysis for the disposal of large quantities of DU and develop the technical requirements for such an analysis; and,
- develop and seek public comment on a guidance document that outlines the parameters and assumptions to be used in conducting such site-specific analyses.

The Commission also acknowledged that "for waste streams consisting of significant amounts of DU, there may be a need to place additional restrictions on the disposal of the DU at a specific site or deny such disposal based on unique site characteristics and those restrictions should be determined by a site specific analysis." The Commission did not approve altering the low-level radioactive waste classification of DU as part of this limited scope rulemaking.

Subsequently, in an October 8, 2009, memorandum, "Blending of Low-Level Waste" (ADAMS Accession No. ML093070605), the Chairman directed the staff to conduct an analysis of issues associated with the large-scale

blending of low-level radioactive waste. This direction responded to the industry's interest in large-scale blending of some types of Class B and Class C low-level radioactive waste with similar Class A low-level radioactive waste to produce a homogeneous Class A low-level radioactive waste mixture. This homogeneous Class A low-level radioactive waste mixture could then be disposed of at existing low-level radioactive waste disposal facilities that only accept Class A low-level radioactive waste, or in Class A disposal cells at facilities that accept Class A, Class B, and Class C low-level radioactive waste. In SECY-10-0043, "Blending of Low-Level Radioactive Waste," dated April 7, 2010 (ADAMS Accession No. ML090410531), the staff provided the Commission with the results of the staff's analysis on the blending of low-level radioactive waste. The staff recommended that the Commission's position on large-scale blending be revised to be more risk-informed and performance-based. In the staff requirements memorandum for SECY-10-0043, "Blending of Low-Level Radioactive Waste," dated October 13, 2010 (ADAMS Accession No. ML102861764), the Commission approved the staff's recommendation and directed the staff to implement the recommendation through a combination of rulemaking and the issuance of guidance. Because the regulatory issues being addressed for large-scale blending were very similar to those in the ongoing DU rulemaking, these two regulatory efforts were combined into a single rulemaking.

On January 19, 2012, in Staff Requirements Memorandum (SRM)-COMWDM-11-0002/ COMGEA-11-0002, "Revision to 10 CFR Part 61," dated January 19, 2012 (ADAMS Accession No. ML120190360), the Commission directed the staff to expand the ongoing limited-scope revision to 10 CFR Part 61 to include the following issues:

- allowing the licensees the flexibility to use International Commission on Radiological Protection (ICRP) dose methodologies in a site-specific performance assessment for the disposal of all radioactive low-level radioactive waste;
- developing a two-tiered approach that establishes a compliance period that covers the reasonably foreseeable future and a longer period of performance that is not for a predetermined set of years, but is established to evaluate the performance of the site over longer timeframes;
- providing flexibility for disposal facilities to establish site-specific low-level radioactive waste acceptance criteria based on the results of the site's performance assessment and intruder assessment; and,
- adopting a compatibility category for the elements of the revised rule that ensures alignment between the States and Federal Government on safety fundamentals, while providing the States with the flexibility to determine how to implement these safety requirements.

Based on the Commission's direction, NRC staff revised the regulatory basis document associated with the proposed rulemaking, "Regulatory Basis for Proposed Revisions to Low- Level Waste Disposal Requirement (10 CFR Part 61)" (ADAMS Accession No. ML12356A242).

The NRC developed the current 10 CFR Part 61 based on assumptions regarding the types of low-level radioactive waste likely to go into a commercial disposal facility in the late 1970s and early 1980s. These assumptions were based on a survey of low-level radioactive waste generators at that time. The results of this survey ultimately formed the regulatory basis for the source terms used in the analysis to define the allowable isotopic concentration limits in Tables 1 and 2 of 10 CFR 61.55, which established four classes of low-level radioactive waste (Class A, Class B, Class C, and greater-than-Class-C) that are suitable for near-surface disposal. Currently, Table 1 provides limiting concentrations for long-lived radionuclides, and Table 2 provides limiting concentrations for short-lived radionuclides.

In addition to determining the acceptability of low-level radioactive waste for disposal in a near-surface land disposal facility, the low-level radioactive waste classification system is also integral to determining Federal and State responsibilities for low-level radioactive waste and requirements for transfers of low-level radioactive waste intended for disposal. The Low-Level Radioactive Waste Policy Act of 1980 (as amended in 1985) defines Federal and State responsibilities for the disposal of low-level radioactive waste based on 10 CFR 61.55. Specifically, the Act assigns responsibility for disposal of Class A, Class B, and Class C commercial low-level radioactive waste to the States and responsibility for disposal of commercial low-level radioactive waste with concentrations that exceed the limits for Class C LLRW to the Federal Government. These responsibilities would not be changed as a result of the proposed rule recommended by NRC staff.

Low-level radioactive waste streams generated by the U.S. Department of Energy, including large quantities of DU low-level radioactive waste, were not considered in the original analysis to determine the concentration limits in Tables 1 and 2 of 10 CFR 61.55. Low-level radioactive waste streams from commercial uranium enrichment facilities and blended low-level radioactive waste, which might result in large quantities of material near the upper bounds of a low-level radioactive waste class, also were not considered. Further, new technologies might result in the future generation of different low-level radioactive waste streams not evaluated when the current 10 CFR Part 61 regulations were developed. Thus, if low-level radioactive waste differs significantly in quantity and concentration from what was considered in the development of the current 10 CFR Part 61, then it might be possible to dispose of low-level radioactive waste that meets the disposal requirements but results in an intruder dose (if calculated) that exceeds the dose limit used to develop the low-level radioactive waste classification tables (i.e., 5 milliSieverts per year (mSv/yr) (500 millirem per year (mrem/yr))).

Currently, 10 CFR Part 61, Subpart C, contains performance objectives that set standards for:

- "Protection of the general population from releases of radioactivity" (10 CFR 61.41);
- "Protection of individuals from inadvertent intrusion" (10 CFR 61.42);
- "Protection of individuals during operations" (10 CFR 61.43); and,
- "Stability of the disposal site after closure" (10 CFR 61.44).

License applicants under 10 CFR Part 61 must prepare an assessment of potential future dose impacts to the general population to demonstrate that they will meet the 10 CFR Part 61, Subpart C, performance objectives. License applicants must also demonstrate the protection of potential inadvertent intruders into the low-level radioactive waste disposal facility who might occupy the site at any time after institutional controls over the low-level radioactive waste disposal facility are removed and would be unaware of the radiation hazard from the low-level radioactive waste. Under the current regulations, protection of inadvertent intruders is demonstrated by compliance with the low-level radioactive waste classification (10 CFR 61.55) and segregation requirements (10 CFR 61.52, "Land disposal facility operation and disposal site closure"), and by providing adequate barriers to inadvertent intrusion.

Explicit dose limits for an inadvertent intruder are currently not provided in 10 CFR Part 61 because an intruder dose assessment is not specifically required, but the low-level radioactive waste classification limits for radionuclides, in Tables 1 and 2 of 10 CFR 61.55, were based on a dose of 5 mSv/yr (500 mrem/yr) to an inadvertent intruder.

The final low-level radioactive waste classification tables were developed assuming that only a fraction of the low-level radioactive waste being disposed would approach the low-level radioactive waste classification limits. Thus, the dose to an intruder exposed to a large volume of

disposed low-level radioactive waste at the classification limits could exceed 5 mSv/yr (500 mrem/yr). By complying with the low-level radioactive waste classification and segregation requirements, a licensee can demonstrate that an inadvertent intruder will be protected if the low-level radioactive waste stream proposed for disposal is sufficiently similar to that considered in the regulatory basis for the current 10 CFR Part 61 regulations, if the underlying assumptions are not violated.

Recently, there have been proposals for disposal of large quantities of DU low-level radioactive waste and blended low-level radioactive waste in commercial low-level radioactive waste disposal facilities. NRC staff anticipates that in the future, other previously unanalyzed low-level radioactive waste also might be considered for disposal in a commercial low-level radioactive waste disposal facility. To best address current and future low-level radioactive waste streams, the staff determined that the proposed rule's required analysis should include current inventories and result in low-level radioactive waste acceptance criteria to be applied to acceptance of all future low-level radioactive waste shipments that would be added to current inventory, rather than attempt to address each new low-level radioactive waste stream in the current rulemaking. According to staff, this approach will reduce the need for future rulemakings to address any new, unanalyzed low-level radioactive waste, and reflect a risk-informed, performance-based approach.

For additional information, please contact Andrew Carrera of the NRC's Office of Federal and State Materials and Environmental Management Programs (FSMEMP) at (301) 415-1078 or at Andrew.Carrera@nrc.gov or Michael Lee of NRC's FSMEMP at (301) 415-6887 or at Michael.Lee@nrc.gov.

Preliminary Document Released re Part 61 Rulemaking Initiative

On July 1, 2013, the U.S. Nuclear Regulatory Commission (NRC) released a preliminary document regarding the proposed rulemaking to modify portions of 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste." The document was released in preparation for a briefing at a meeting of the Advisory Committee on Reactor Safeguards (ACRS) on July 9-12, 2013 in Rockville, Maryland.

After the briefing, the ACRS wrote a letter to the Commission providing their views on the preliminary document and proposed rulemaking. (See related story, this issue.) It is anticipated that NRC staff will prepare a response to the ACRS comments.

On July 18, 2013, NRC staff requested Commission approval to publish the proposed rule. (See related story, this issue.) If the Commission approves the document, it will be published in the *Federal Register* for formal public comment—which is expected to occur sometime later this year.

Brief Summary

The proposed rule would affect existing and future low-level radioactive waste (LLRW) disposal facilities that are regulated by the NRC or an Agreement State. In particular, NRC is proposing to amend its regulations that govern LLRW disposal facilities to require new and revised site-specific technical analyses, to permit the development of criteria for LLRW acceptance based on the results of these analyses, and to facilitate implementation and better align the requirements with current health and safety standards.

The NRC considered a number of options in developing this proposed rule. In the end, the agency decided that requiring site-specific technical analyses for all LLRW inventories would be the most comprehensive approach. This approach would ensure that as LLRW streams are generated, analyses would be performed to determine if the performance objectives would be met for disposal of all isotopic concentrations and volumes of LLRW. Under the proposed rule, all sites would be required to complete performance assessments and intruder assessments for the compliance period. In addition, land disposal sites with long-lived LLRW would be required to complete performance period analyses.

For the NRC licensees and license applicants, the rule would become effective 1 year after the final rule is published in the *Federal Register*. The Agreement States will have 3 years from the published date of the *Federal Register* notice for the final rule to adopt compatible regulations.

Proposed Actions

Site-Specific Technical Analyses The NRC is proposing to amend 10 CFR Part 61 to require LLRW disposal licensees or license applicants to prepare new and revised site-specific technical analyses to ensure that LLRW streams that are significantly different from the LLRW streams considered in the current 10 CFR Part 61 regulatory basis can be disposed of safely and meet the performance objectives in 10 CFR Part 61, Subpart C. These new and revised analyses would also more easily identify any additional measures that would be prudent to implement for continued disposal of radioactive LLRW at a particular facility. *Table 1 on page 15 of the preliminary document released by NRC on July 1 compares the proposed new and revised technical analyses to the current 10 CFR Part 61 requirements.*

Waste Acceptance Criteria The NRC is also proposing to amend 10 CFR Part 61 to require LLRW disposal facility licensees or license applicants to develop criteria for the acceptability of LLRW for disposal. These amendments maintain the existing LLRW classification system, but permit disposal facility licensees or license applicants to account for facility design, disposal practices, and site characteristics to determine criteria for accepting shipments of LLRW for disposal at their site. Because licensees or license applicants are permitted to develop site-specific LLRW acceptance criteria rather than relying only on the LLRW classification system for acceptance criteria under the proposed LLRW acceptance amendments, the NRC is also proposing to amend appendix G of 10 CFR Part 20, "Standards for Protection Against Radiation," to conform to the proposed requirements for LLRW acceptance. The NRC is also proposing additional amendments to the regulations to facilitate implementation and better align the requirements with current health and safety standards.

10,000-Year Compliance Period The inadvertent intruder assessment would be a new requirement under 10 CFR 61.42. The inadvertent intruder assessment would have a proposed 5 mSv (500 mrem) annual dose limit and would require licensees or license applicants to use a newly defined 10,000-year compliance period. A performance assessment would also be required for the protection of the general population from releases of radioactivity. This analysis would update the current exposure-pathway analysis to use a more modern performance-assessment methodology that would better align 10 CFR Part 61 with the Commission's policy regarding the use of probabilistic risk assessment methods in nuclear regulatory analysis (60 *Federal Register* 42622). The performance assessment would also use a newly defined 10,000-year compliance period. The performance assessment would retain the current 0.25 mSv (25 mrem) annual dose limit and the as low as reasonably achievable (ALARA) concept, but the dose methodology would be consistent with the dose methodology specified in the standards for radiation protection set forth in the current 10 CFR Part 20.

Other Proposed Changes The long-term analyses would also be a new requirement under 10 CFR 61.13. The long-term analyses would require licensees or license applicants to assess how the disposal facility and site characteristics limit the potential long-term radiological impacts, consistent with available data and current scientific understanding, for the protection of the general population and the inadvertent intruder. The NRC is proposing additional changes to the 10 CFR Part 61 regulations to facilitate implementation and better align the requirements with current health and safety standards. These changes would include: 1) adding new definitions to 10 CFR 61.2, "Definitions," and updating concepts in 10 CFR 61.7; 2) implementing changes to appendix G to 10 CFR Part 20, to conform to proposed LLRW acceptance requirements; 3) modifying site suitability requirements in 10 CFR 61.50, to be consistent with the proposed analyses framework; and, 4) allowing the use of more up-to-date ICRP recommendations for dosimetry modeling purposes at 10 CFR 61.7.

Background

The Commission first published its licensing requirements for the disposal of commercial low-level radioactive waste in near-surface disposal facilities under Title 10 of the *Code of Federal Regulations* Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," in 1982 in the *Federal Register* (47 *Federal Register* 57446). In a 2009 staff requirements memorandum (SRM), SECY-08-0147, "Response to Commission Order CLI-05-20 Regarding Depleted Uranium," the Commission directed the staff to proceed with a limited rulemaking to 10 CFR Part 61 to specify an explicit requirement for a site-specific analysis or performance assessment for the disposal of depleted uranium (DU) and other long-lived isotopes in a near-surface disposal facility. The SRM also provided the technical requirements for such an analysis. Previously, such a performance assessment requirement did not explicitly exist in 10 CFR Part 61, but regulators still expected applicants and licensees to use such methods to demonstrate compliance with those regulations, as noted by the Commission in its "1995 Probabilistic Risk Assessment Policy Statement" (60 *Federal Register* 42627). In a second SRM (SRM-SECY-10-0043) dated April 7, 2010, "Blending of Low-Level Radioactive Waste," the Commission directed the staff to include blended LLW streams as part of this rulemaking initiative.

Following the 2009 solicitation of public input on a low-level radioactive waste performance assessment (74 *Federal Register* 30175), NRC staff developed a technical basis (now called a "regulatory analysis") document to support the rulemaking amendment (Agencywide Documents Access and Management System "ADAMS" Accession No. ML111040419). The agency shared the document with the NRC Agreement States, and proceeded to develop proposed rulemaking language. Following completion of draft preliminary rulemaking language (ML111150205), the NRC staff made the proposal publicly available in May 2011, and solicited stakeholder feedback (76 *Federal Register* 24831).

In connection with the proposed new performance assessment requirement itself, the staff also recommended the duration of the requisite analysis − or the time of compliance (TOC) – be specified at 20,000 years to account for the presence of large quantities of long-lived isotopes, such as DU, that might be disposed of in a near-surface disposal facility. In August 2011, the staff briefed the Advisory Committee on Reactor Safeguards (ACRS) on the preliminary proposed rulemaking language and the basis for the staff-preferred TOC, for which a Committee Letter Report was issued in September 2011 (ML11256A191).

In draft proposed rulemaking language made available in 2011, the staff recommended that licensees for currently operating low-level radioactive waste disposal facilities and future 10

CFR Part 61 applicants conduct site-specific performance assessments to demonstrate compliance with the regulatory requirement found in 10 CFR 61.41, "Protection of the General Population from Release of Radioactivity," to protect the general public from radiation doses. The analyses would be used to identify if additional restrictions or prohibitions concerning the disposal of certain low-level radioactive waste streams, such as DU, at a particular site, would be necessary. The NRC intends to incorporate specific parameters and assumptions for conducting requisite analyses into a separate guidance document that would be issued for public comment before the NRC finalizes the rulemaking amendments. With respect to DU and other low-level radioactive waste streams with long-lived isotopes, the specific technical requirements associated with disposal of such wastes would be developed through the rulemaking process.

In a third SRM, designated COMWDM-11-0002/ COMGEA-11-0002, the Commission directed staff to seek stakeholder feedback on the following four potential revisions:

(1) Whether licensees should be allowed to use International Commission on Radiation Protection (ICRP) dose methodologies in a site-specific performance assessment for the disposal of all low-level radioactive waste?

(2) Whether the regulations should incorporate a two-tiered approach that establishes a compliance period that covers the reasonably foreseeable future and a longer period of performance that is not *a priori* and is established to evaluate the performance of the site over longer timeframes? The period of performance is developed based on the candidate site characteristics (waste package, waste form, disposal technology, cover technology and geo-hydrology) and the peak dose to a designated receptor.

(3) Whether disposal facilities should be allowed to establish site-specific waste acceptance criteria (WAC) based on the results of the site's performance assessment and intruder assessment?

(4) Whether the provisions of the revised proposed rule that require the site-specific performance assessments and the development of the site-specific WAC, should specify a compatibility category that ensures alignment between the States and Federal Government on safety fundamentals, while providing the States with the flexibility to determine how to implement these safety requirements?

The Commission directed staff to provide an expanded proposed rule to the Commission within 18 months to address the aforementioned revisions, as well as the staff's analysis of the issues and stakeholder feedback, including the pros and cons of the potential revisions.

On December 3, 2012, NRC released 10 CFR Part 61 regulatory basis document, "Regulatory Analysis for Proposed Revisions to Low-Level Waste Disposal Requirement (10 CFR Part 61)." (See LLW Forum News Flash titled, "NRC Releases Revised Part 61 Regulatory Analysis," December 2, 2012.) NRC specifically stated that the agency is not requesting comments on the regulatory basis document—which is publicly available under ADAMS accession number ML12306A480. Subsequently, on December 7, 2012, NRC issued a *Federal Register* notice (77 *Federal Register* 72,997) to announce an opportunity to comment on the preliminary rule language, "November 2012 Preliminary Rule Language for Proposed Revisions to Low-Level Waste Disposal Requirements (10 CFR Part 61)," that supports the 10 CFR Part 61 rulemaking. The November 2012 preliminary rule language is publicly available under ADAMS accession number ML12311A444 and on http://www.regulations.gov under Docket ID NRC-2011-0012.

Consistent with the Commission's public outreach directive, the staff has sponsored public meetings dedicated to seeking stakeholder input on the

Commission's proposal to risk-inform the 10 CFR Part 61 rulemaking, directly engaged NRC Agreement State representatives, and participated in certain other previously scheduled public events and professional meetings.

To locate the preliminary Part 61 document 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 ML number "ML13179A321" as the value.

Detailed meeting agendas and meeting transcripts of ACRS meetings are available on the NRC Web site at http://www.nrc.gov/reading-rm/doc-collections/acrs/agenda/2013/.

For additional information, please contact Andrew Carrera of the NRC's Office of Federal and State Materials and Environmental Management Programs (FSMEMP) at (301) 415-1078 or at Andrew.Carrera@nrc.gov or Gary Comfort of NRC's FSMEMP at (301) 415-8106 or at Gary.Comfort@nrc.gov. Please refer to Docket ID NRC-2011-0012 when contacting the NRC about this proposed rule.

NRC Webinar re Regulations on Foreign Ownership of U.S. Reactors

On August 21, 2013, U.S. Nuclear Regulatory Commission staff held a webinar to discuss the agency's regulations regarding foreign ownership of U.S. nuclear power plants. The staff is responding to Commission direction on assessing foreign ownership issues and considering if any changes to NRC guidance or practice would be appropriate.

Webinar

The webinar and associated teleconference ran from 9:00 a.m. to 12:00 noon. During the webinar, NRC staff first described current regulations and then discussed previous stakeholder comments on the issue. Interested groups and the public were then given the opportunity to ask questions and provide additional feedback on the matter.

Background

The Atomic Energy Act and NRC regulations disqualify any applicant for a nuclear power plant operating license if the applicant is owned, controlled or dominated by a foreign national, a foreign corporation or a foreign government. In recent years, a number of licensing actions before the NRC have involved complex issues of foreign ownership, control and domination. This is likely due to the increased globalization of the electric power industry and complexity of corporate structures generally.

Commission Direction

The Commission directed the staff in March 2013 to provide its assessment and proposals by December 31, 2013. On June 19, 2013, the agency held a public meeting to discuss the topic at NRC headquarters in Rockville, Maryland. (See *LLW Notes,* May/June 2013, pp. 30-31.)

At this time, no specific changes to guidance or regulation are under consideration.

For additional information, please contact JoAnn Simpson of the NRC at (301) 415-8388 or at joann.simpson@nrc.gov.

NRC Publishes Amendments to Regulations on Reactor License Renewal Environmental Reviews

On June 20, 2013, the U.S. Nuclear Regulatory Commission announced that the agency is publishing its new amendments to its environmental protection regulations governing environmental impact reviews of nuclear power plant operating license renewals.

The amendments, approved by the Commission in December 2012, redefine the number and scope of environmental issues that must be addressed, and incorporate lessons learned from previous license renewal reviews and public comments on the proposed rule. Since December 2012, the information collection requirements in the final rule were approved by the Office of Management and Budget.

License renewal environmental reviews are governed by regulations (10 CFR Part 51) implemented in 1996 and the NRC's Generic Environmental Impact Statement (GEIS) for License Renewal of Nuclear Plants, NUREG-1437.

The amendments contained in the final rule, published in the *Federal Register* on June 20, 2013, became effective in 30 days, but compliance will not be required for one year. Separate notices also published on June 20 announced the availability of the revised GEIS, as well as regulatory guidance and standard review plan for the final rule.

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

License Renewals Continue to Move Forward

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

- In July 2013, NRC announced the opportunity to request an adjudicatory hearing on an application to renew the operating licenses of the Byron and Braidwood nuclear power plants in Illinois. Exelon Generation Co. filed the application, dated May 29, seeking to renew the operating licenses for an additional 20 years of operation. The Braidwood Nuclear Station, located 20 miles southwest of Joliet, and the Byron Nuclear Station, located 17 miles southwest of Rockford, each have two pressurized-water reactors. The current operating licenses for Braidwood expire on October 17, 2026 for Unit 1 and December 18, 2027 for Unit 2. The licenses for Byron expire October 31, 2024 for Unit 1 and November 6, 2026 for Unit 2. Exelon, in submitting a single application to cover both plants, cited extensive similarities in the systems, structures and components of each that are analyzed in a license renewal review. NRC staff has determined the application is sufficiently complete to allow the staff to formally docket the application, and begin its detailed technical and environmental reviews. Docketing the application does not preclude requesting additional information as the review proceeds; nor does it indicate whether the Commission will grant the application. Requests for a hearing must be filed by September 23, 2013. *For specific guidance and instructions on public involvement in hearings visit: http://www.nrc.gov/about-nrc/regulatory/adjudicatory/hearing.html.*

- In July 2013, NRC staff issued a supplement to the Final Supplemental Environmental Impact Statement (FSEIS) it prepared for the Indian Point nuclear power plant license renewal application. The update to the earlier assessment released in December 2010 incorporates new information about possible impacts of the Buchanan, New York facility on the aquatic environment. Among the new information identified since the FSEIS was issued are: (1) additional details provided by the plant's owner, Entergy Nuclear Operations Inc., on impingement and entrainment field data units of measure; (2) comments provided by Entergy on the field data units of measure regarding the Essential Fish Habitat Assessment for the plant; and (3) new studies completed by Entergy and submitted to the New York State Department of Environmental Conservation characterizing the plant's thermal plume in the Hudson River. The supplement also documents the completion of a consultation process between the NRC and the National Marine Fisheries Service regarding the shortnose sturgeon and the Atlantic sturgeon population in vicinity of Indian Point. Indian Point is the site of two pressurized-water reactors. The initial 40-year operating license for Indian Point Unit 2 is set to expire on September 28, 2013, while the initial license for Indian Point Unit 3 runs through December 12, 2015. Entergy is seeking a 20-year license extension for each unit. It submitted an application to the NRC seeking the license renewals on April 23, 2007. As part of its review of the application, the NRC performed a detailed assessment of potential environmental impacts if the plant continues to operate for the extended periods of time. The FSEIS, totaling more than 2,000 pages, was published on December 3, 2010. A draft version of the FSEIS supplement was issued on June 26, 2012. Eight organizations and/or individuals submitted comments to the NRC on the report. Those comments are addressed in the final report. *The Indian Point license renewal application, the FSEIS and the supplement are available on the NRC's website at www.nrc.gov.*

Under NRC regulations, a nuclear power plant's original operating license may last up to 40 years. License renewal may then be granted for up to an additional 20 years, if NRC requirements are met. To date, NRC has approved license extension requests for 73 reactor units. In addition, NRC is currently processing license renewal requests for several other reactors.

Currently no final licensing decisions for reactors, including license renewal, will be made by the Commission until the waste confidence rule is completed. NRC's waste confidence environmental impact statement and rule are expected by September 2014.

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

NRC Discusses Updated Quake Motion Model for Plant Re-Evaluations

On August 6, 2013, staff of the U.S. Nuclear Regulatory Commission met with industry representatives and the public to discuss the industry's effort to update computer models of earthquake-generated ground motion. Central and Eastern U.S. nuclear power plants will use the models to re-evaluate their earthquake hazard as part of the lessons learned from the March 2011 Fukushima nuclear accident.

The Electric Power Research Institute (EPRI), an industry group, updated its ground motion model from the 2004 - 2006 timeframe to ensure U.S. nuclear power plants have up-to-date methods available to re-evaluate earthquake hazards.

Presentation slides and related material from the meeting are available in the NRC's electronic document database, ADAMS, under accession number ML13155A553.

For additional information, please contact Lisa Regnerof the NRC at (301) 415-1906 or at lisa.regner@nrc.gov.

Final Licensing, Inspection and Annual Fees Rule Issued for Fiscal Year 2013

The U.S. Nuclear Regulatory Commission has amended its regulations to reflect the licensing, inspection and annual fees it will charge its applicants and licensees for fiscal year (FY) 2013. The FY 2013 final fee rule, published in the *Federal Register*, includes fees required by law to recover approximately 90 percent of the agency's budget authority. The President signed the Consolidated and Further Continuing Appropriations Act of 2013 on March 26, 2013, giving the NRC a total appropriation of $985.6 million for FY 2013. The NRC's required fee recovery amount for the FY 2013 budget is approximately $864.0 million. After accounting for billing adjustments, the total amount to be billed as fees is approximately $859.6 million.

The agency is required by Congress to recover for the U.S. Treasury most of its annual appropriated budget through two types of fees. One is for specific NRC services, such as licensing and inspection activities, that apply to a specific license; the other is an annual fee for generic and other regulatory costs not otherwise recovered through fees for specific services. These fees are paid to the U.S. Treasury and go into the general fund. Of the 90 percent of the NRC's budget that is recovered, approximately 40 percent of the fees (10 CFR Part 170) will be billed for specific services to cover the cost of special benefits to identifiable applicants and licensees, and the remaining 60 percent will be billed as annual fees (10 CFR Part 171).

"The NRC is continuing its efforts to keep its fees as low as possible by ensuring its programs are conducted efficiently and effectively, and requesting from Congress only the resources necessary to perform its mission of protecting people and the environment," said NRC Chief Financial Officer Jim Dyer.

The final fee rule includes several changes from the NRC's FY 2012 final fee rule. First, the NRC decreased the current hourly rate of $274 to $272, a decrease of 0.7 percent. This decrease in the hourly rate is a result of a smaller agency budget in FY 2013. Second, as a result of our biennial review, the NRC revised the flat license application fees in 10 CFR 170.21 and 170.31 to reflect the new hourly rate. Finally, the FY 2013 annual fees increased for spent fuel storage facilities, research and test reactors, fuel facilities, most material users, and uranium recovery facilities, while annual fees decreased for operating reactors and U.S. Department of Energy transportation activities.

The NRC estimates that the FY 2013 annual fees will be paid by licensees of 102 operating reactors, 4 research and test reactors, 21 spent nuclear fuel storage/reactor-in-decommissioning facilities, 10 fuel cycle facilities, 11 uranium recovery facilities and approximately 3,002 nuclear material users.

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

Allison Macfarlane Sworn in for Full Term at NRC

Designated to Continue Serving as Chairman

On July 1, 2013, Dr. Allison Macfarlane was sworn in to a full five-year term on the U.S. Nuclear Regulatory Commission. Macfarlane joined the Commission as a member and Chairman on July 9, 2012 for the remainder of a term ending June 30, 2013. She won confirmation from the Senate on June 27, 2013 after being nominated by the President in March 2013. She has been designated by President Obama to continue serving as the agency Chairman.

"I am honored to continue my service as Chairman of the NRC," Macfarlane said. "I look forward to building on the past year's accomplishments on the critically important issues our agency faces."

Macfarlane, who is the 15th NRC Chairman, is an expert on nuclear waste issues and holds a Doctorate in Geology from the Massachusetts Institute of Technology and a Bachelor of Science degree in Geology from the University of Rochester. Before coming to the NRC, Macfarlane was an Associate Professor of Environmental Science and Policy at George Mason University in Fairfax, Virginia.

From 2010 to 2012, Macfarlene served on the Blue Ribbon Commission on America's Nuclear Future, which was created by the Obama Administration to make recommendations about a national strategy for dealing with the nation's high-level nuclear waste. Her research has focused on environmental policy and international security issues associated with nuclear energy, especially the back-end of the nuclear fuel cycle. In 2006, MIT Press published a book she co-edited, *Uncertainty Underground: Yucca Mountain and the Nation's High-Level Nuclear Waste,* which explored technical issues at the proposed waste disposal facility at Yucca Mountain, Nevada.

During her academic career, Macfarlene held fellowships at Radcliffe College, MIT, and Stanford and Harvard Universities. From 1998 to 2000, she was a Social Science Research Fellow-MacArthur Foundation Fellow in International Peace and Security. She has served on National Academy of Sciences panels on nuclear energy and nuclear weapons issues. From 2003 to 2004, she was on the faculty at Georgia Tech in Earth Science and International Affairs.

Macfarlane is the third woman to serve as Chairman, the 33rd member and the only individual with a background in geology to serve on the Commission.

For additional information, please contact Eliot Brenner of the NRC at (301) 415-8200.

Mark Satorius Selected as NRC's New Director for Operations

On July 16, 2013, the U.S. Nuclear Regulatory Commission announced that Mark Satorius, Head of the NRC's Office of Federal and State Materials and Environmental Management Programs, has been selected as the agency's new Executive Director of Operations (EDO). Satorius selection became effective as of August 25, 2013.

The position serves as the Chief Operating Officer of the NRC, and directs the operational and administrative functions for the day-to-day operations of the agency. Bill Borchardt, the outgoing EDO, is retiring after 30 years of service. The EDO is appointed by the NRC

Chairman, with approval of the four Commissioners.

"I am confident in Mark's technical competence and unwavering commitment to safety and security," said NRC Chairman Allison Macfarlane. "He will bring energy, enthusiasm and new ideas to the task of ensuring that our agency remains focused on our core mission and continues to be a great place to work in the federal government."

Satorius joined the NRC in 1989, serving in Region IV as an Operator Licensing Examiner, and later as a Reactor Inspector and Senior Project Engineer. He has also served in a variety of leadership positions at the NRC, including: Deputy Director in the Office of Enforcement, Chief of the Performance Assessment Section in the Office of Nuclear Reactor Regulation, Deputy Director of Reactor Projects in Region IV, Director of Reactor Projects in Region III, and Regional Administrator for Region III. He became Director of the Office of Federal and State Materials and Environmental Management Programs in October 2011.

Prior to joining the NRC, Satorius served as a nuclear-trained submarine officer. He is a graduate of the Senior Executive Service Candidate Development Program. He graduated from the U.S. Naval Academy with a Bachelor of Science degree in Mechanical Engineering.

For additional information, please contact Holly Harrington of the NRC at (301) 415-8200.

Commission Approves Publication of Proposed Waste Confidence Rule and Draft Generic EIS

On August 6, 2013, the U.S. Nuclear Regulatory Commission approved—subject to certain changes that the NRC staff must make—publication of the proposed Waste Confidence Rule and Draft Generic Environmental Impact Statement (EIS).

The Commission-review versions of the proposed Waste Confidence Rule and Draft Generic EIS are available at http://www.nrc.gov/waste/spent-fuel-storage/wcd.html

The Commission's instructions to staff, in the form of a Staff Requirements Memorandum, are available at http://www.nrc.gov/reading-rm/doc-collections/commission/srm/2013/2013-0061srm.pdf (ADAMS No. ML13217A358).

Publication

NRC staff will now make the changes directed by the Commission and plan to publish the proposed Waste Confidence Rule and Draft Generic EIS in September for public comment. Upon publication, staff will post both documents to the Waste Confidence webpage and send out a notice to its list-serve. The staff plans to also post versions of the documents that identify the changes that the NRC staff made in response to the Commission's Staff Requirements Memorandum.

Public Outreach

On Tuesday, July 23, 2013, the Waste Confidence Directorate held an "NRC Chat." *For additional information, please visit http://chat.nrc-*

gateway.gov/2013/07/15/waste-confidence/ to view the discussion.

On Wednesday, August 14, 2013, the Waste Confidence Directorate will hold a status teleconference from 1:30 – 2:30 p.m. EDT. To participate, please dial (800) 857-2553, and provide the operator with passcode 3682386. Please dial in 5 minutes before the start time so that all participants can be connected before the teleconference begins. *For additional information, the meeting notice is available at http://pbadupws.nrc.gov/docs/ML1320/ML13205A393.pdf (ADAMS No. ML13205A393).*

Background Information

The Waste Confidence Decision and Rule represent the Commission's generic determination that spent nuclear fuel can be stored safely and without significant environmental impacts for a period of time after the end of the licensed life of a nuclear power plant (in 1984 and 1990 the time period was 30 years after the end of the license, and in 2010 it was increased to 60 years). This generic analysis is reflected in section 51.23 of Title 10 of the *Code of Federal Regulations* (10 CFR), which is intended to satisfy the NRC's National Environmental Policy Act (NEPA) obligations with respect to post-licensed-life storage of spent nuclear fuel. Historically, the Waste Confidence Decision has consisted of five findings and a technical basis for each finding.

The Waste Confidence Decision and Rule were first adopted in 1984. The Decision and Rule were amended in 1990, reviewed in 1999, and amended again in 2010. In response to the 2010 Decision and Rule, the States of New York, New Jersey, Connecticut, and Vermont, and several other parties challenged the Commission's NEPA analysis in the Decision, which provided the regulatory basis for the Rule. On June 8, 2012, the D.C. Circuit Court found that some aspects of the 2010 Decision did not satisfy the NRC's NEPA obligations and vacated the Decision and Rule.

In particular, the Court concluded that the Waste Confidence Rulemaking is a major Federal action necessitating either an EIS or an Environmental Assessment (EA) that results in a Finding of No Significant Impact. In vacating the 2010 decision and rule, the Court identified three specific deficiencies in the analysis:

1. related to the Commission's conclusion that permanent disposal will be available "when necessary," the Court held that the Commission did not evaluate the environmental effects of failing to secure permanent disposal;
2. related to the storage of spent fuel on site at nuclear plants for 60 years after the expiration of a plant's operating license, the Court concluded that the Commission failed to properly examine the risk of spent fuel pool leaks in a forward-looking fashion; and,
3. also related to the post-licensed-life storage of spent fuel, the Court concluded that the Commission failed to properly examine the consequences of spent fuel pool fires.

Waste Confidence, though applicable only to the period after the licensed life of a reactor, is part of the basis for agency licensing decisions on new reactor licensing, reactor license renewal, and independent spent fuel storage installation licensing. The Commission has decided that no final licenses will be issued until a new Waste Confidence Decision and Rule are in effect. The NRC is now preparing a revised Decision and Rule to address the issues identified by the Court. The referenced *Federal Register* notice is the first step in that process.

In a rulemaking, the Commission must consider the effect of its actions on the environment in accordance with NEPA. Section 102(1) of NEPA requires that policies, regulations, and

public laws of the United States be interpreted and administered in accordance with the policies set forth in NEPA. It is the intent of NEPA to have federal agencies consider environmental issues in their decision-making processes. To fulfill its responsibilities under NEPA, the NRC is preparing an EIS to support the potential update to the Waste Confidence Decision and Rule.

The Commission's regulations in 10 CFR 51.26, "Requirement to publish notice of intent and conduct scoping process," contain requirements for conducting a scoping process prior to preparation of an EIS. These requirements include, among other things, preparation of a notice of intent in the *Federal Register* regarding the EIS and indication that the scoping process may include holding a public scoping meeting.

On June 24, 2013, NRC released the following three documents related to the agency's Waste Confidence environmental review and rulemaking:

- a Commission paper, SECY-13-0061, that informs the Commission of the NRC staff's progress and recommends publishing the proposed rule and draft GEIS for public comment: http://pbadupws.nrc.gov/docs/ML1314/ML13143A371.pdf (ADAMS Accession No. ML13143A371)

- a Commission review draft of the *Federal Register* notice for the proposed rule: http://pbadupws.nrc.gov/docs/ML1314/ML13143A374.pdf (ADAMS Accession No. ML13143A374)

- a Commission review draft of the draft GEIS on the environmental impacts of continued storage of spent nuclear fuel: http://pdadupws.nrc.gov/docs/ML13150A347.pdf (ADAMS Accession No. ML13150A347)

To receive periodic e-mail communications regarding the Waste Confidence rulemaking, please e-mail to WCOutreach@nrc.gov.

For additional information regarding the Waste Confidence rulemaking in general, please contact Sarah Lopas, NEPA Communications Project Manager, Office of Nuclear Material Safety and Safeguards, NRC, at (301) 415-3425 or at Sarah.Lopas@nrc.gov.

NRC Seeks Comment on Spent Fuel Study

On June 24, 2013, the U.S. Nuclear Regulatory Commission announced that the agency is seeking comments on a draft study examining if faster removal of spent reactor fuel from pools to dry cask storage significantly reduces risks to public health and safety.

Based on previous research showing earthquakes present the dominant risk for spent fuel pools, the draft study evaluated how pool leakage from a potential earthquake might cause the spent fuel to overheat and release radioactive material to the environment. The draft study concludes there is approximately a one-in-10-million-years chance of a severe earthquake causing a radioactive release from the pool at the site examined.

The study is available on the Regulations.gov website, as well as in the agency's electronic document database, ADAMS, under accession number ML13133A132.

The Study

NRC began the study following the March 2011 Fukushima nuclear accident, where the spent fuel pools survived a strong earthquake. The study

considered a spent fuel pool similar to those at Fukushima and 23 other U.S. reactors, and an earthquake several times stronger than what the pool's design considered. The study examined both a "full" spent fuel pool and one with less fuel and more spacing between individual fuel assemblies, as well as emergency procedures for adding water to the pool in the unlikely event that the earthquake causes the pool to lose water.

"Our detailed analysis showed that even a very strong earthquake has a low probability of damaging the pool studied to the point of losing water," said Brian Sheron, Director of the NRC's Office of Nuclear Regulatory Research. "The draft study also shows that even if this particular pool was damaged, the fuel could be kept safely cool in all but a few exceptional circumstances. We'll use the final study to inform further analysis of U.S. spent fuel pools."

In cases where the analysis led to fuel damage, the draft study concluded existing emergency procedures would keep the population around the plant safe. Those emergency measures could mean relocating people from a large area of potentially contaminated land. The study also examined the potential benefits of moving all spent fuel older than five years (and therefore easier to cool) into storage casks within five years. For the scenarios examined, the study concluded faster fuel transfer to casks would not provide a significant safety benefit for the plant studied. The NRC will incorporate public comments and use the final study in a broader regulatory analysis of the spent fuel pools at U.S. operating nuclear reactors as part of its Japan Lessons-Learned activities.

Submitting Comments

NRC will accept public comment on the study for 30 days following publication of a notice in the *Federal Register*. The public and interested groups can comment, using Docket ID NRC-2013-0136 on the Regulations.gov website.

Comments can also be submitted, using the Docket ID, via mail to:

Cindy Bladey
Chief, Rules, Announcements, and Directives Branch (RADB)
Office of Administration, Mail Stop: TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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

To Obtain Federal Government Information

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- DOE Public Affairs/Press Office .....(202) 586-5806
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- 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**

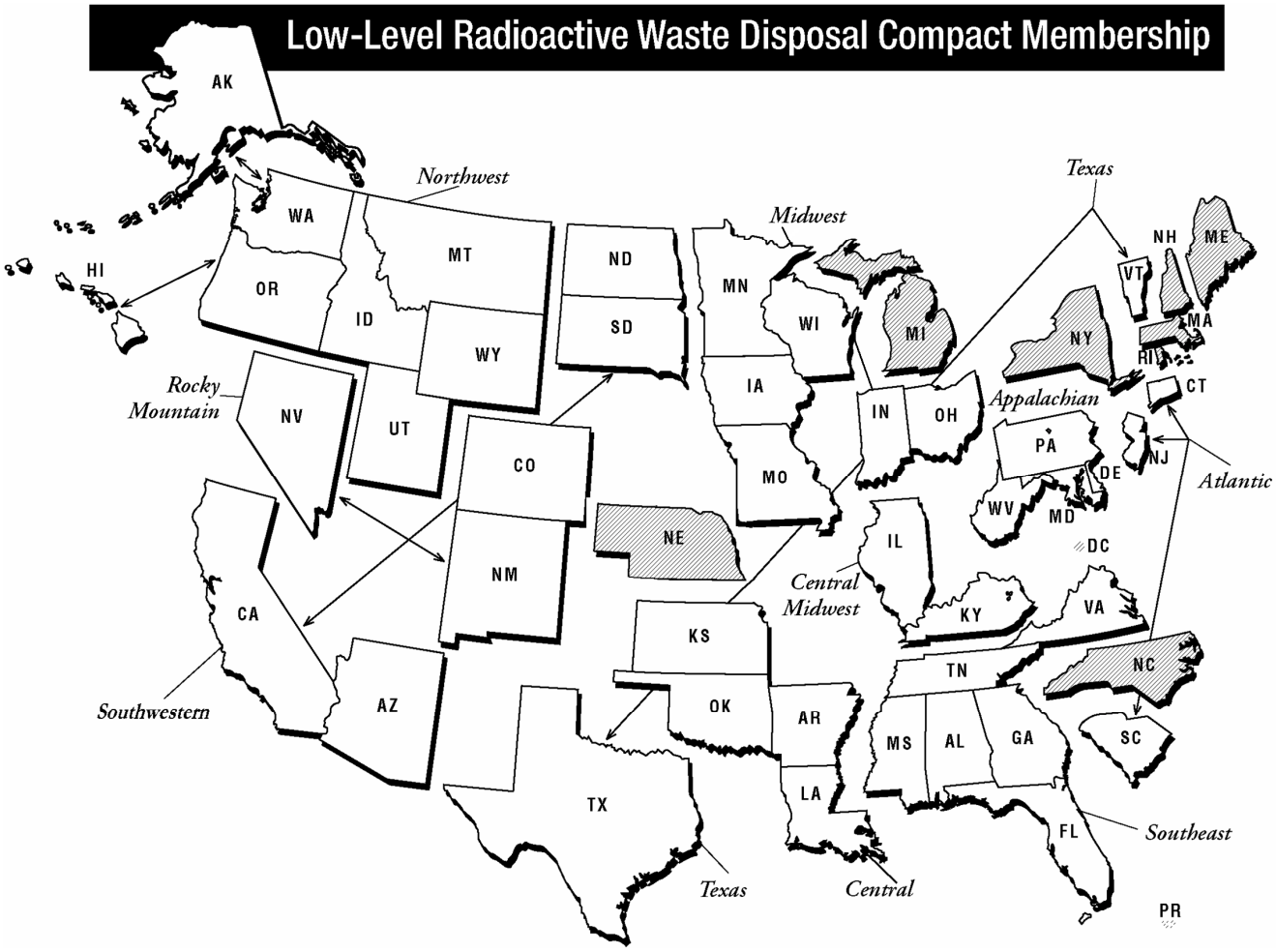
- GAO homepage (access to reports and testimony) .....**www.gao.gov**

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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Nevada
New Mexico

Northwest accepts Rocky Mountain waste as agreed between compacts

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