LLW notes

Volume 28, Number 1 January/February 2013

U.S. Nuclear Regulatory Commission

NRC Releases Staff Recommendations re Improving the Integration of the Ongoing 10 CFR Part 61 Rulemaking Initiatives

On January 16, 2013, the U.S. Nuclear Regulatory Commission made publicly available SECY 13-0001 regarding staff recommendations for improving the integration of the ongoing 10 CFR Part 61 rulemaking initiatives.

In addition to the Policy Issue (Notation Vote), the following three documents were included:

- Enclosure One: 10 CFR Part 61 Rulemaking Assignments
- Enclosure Two: Summary of Public Comments Received in Response to SECY 10-0165 Concerning Potential Changes to the Commercial Low-Level Radioactive Waste Disposal Regulations
- Enclosure Three: Additional Rulemaking Comments Received in Response to SRM-COMWDM-11-002/COMGEA-11-002

All four documents may be found on the NRC web site at www.nrc.gov by going to the ADAMS link and searching for Accession Number ML12199A422.

The following overview is taken directly from SECY-13-0001. For additional information, please contact Michael Lee of the NRC's FSME/ DWMEP.

Purpose

The purpose of the document is to request Commission approval of a staff proposal for improving the efficiency of the ongoing rulemaking efforts to update the 10 CFR Part 61 regulatory framework for the disposal of commercial low-level radioactive waste. If adopted, these recommendations would also improve the integration of earlier Commission direction. This paper also evaluates public

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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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Layout and Design: Rita Houskie, Central Interstate Low-Level Radioactive Waste Compact

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

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Key to Abbreviations

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

Low-Level Radioactive Waste Forum, Inc.

LLW Forum Prepares to Host Spring Meeting

Charleston, South Carolina: March 25-26, 2013

On March 25-26, 2013, the Low-Level Radioactive Waste Forum will hold its spring 2013 meeting—which will be held in downtown Charleston, South Carolina.

The meeting is being co-hosted by the Atlantic Interstate Low-Level Radioactive Waste Compact Commission and the State of South Carolina.

The meeting documents—including meeting bulletins, registration forms and agenda—can be found on the Home Page of 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 meeting will be held at the Francis Marion Hotel in the Historic District of downtown Charleston, South Carolina on March 25-26, 2013. It will be a one and one-half day meeting.

The meeting will include a slide show and panel discussion about the Barnwell facility featuring representatives from the Atlantic Compact Commission, Chem-Nuclear/Energy*Solutions*, nuclear utilities, South Carolina Department of Health and Environmental Control, and South Carolina Budget and Control Board.

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 the LLW Forum at the address, e-mail or fax number listed at the bottom of the form.

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

Reservations

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

A block of hotel rooms have been reserved for Sunday, March 24th and Monday, March 25th at the rate of $137 plus tax. Also, a very limited block of rooms at the same rate is available for March 23rd and March 26, 2013.

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Low-Level Radioactive Waste Forum Meetings

Spring 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 Atlantic Interstate Low-Level Radioactive Waste Commission and State of South Carolina will co-host the spring 2013 meeting of the LLW Forum. The meeting will be held at the Francis Marion Hotel in Charleston, South Carolina on March 25-26, 2013. The meeting will include a panel discussion about the Barnwell facility. (See related story, this issue.)

The State of Utah and Energy*Solutions* have agreed to co-host the fall 2013 meeting of the LLW Forum. There will be an optional site tour of the Energy*Solutions'* Clive facility for interested attendees as well. The meeting will be held on October 22-23, 2012 at the Marriott facility in Park City, Utah.

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..

Search for Volunteer Hosts for Fall 2014 and 2015 Meetings

The LLW Forum is currently seeking volunteers to host the fall 2014 meeting, as well as 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 (202) 265-7990 or at LLWForumInc@aol.com.

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To make a reservation, please call (877) 756-2121. The deadline for reserving a room at the discounted rate is February 22, 2013. ***Please ask for the Low-Level Radioactive Waste Forum block.***

Transportation and Directions

From Charleston airport, one way taxi fare is available for approximately $30.00. Shuttle buses are also available for about $15 one way.

For additional information, please contact Todd D. Lovinger, the LLW Forum's Executive Director, at (202) 265-7990 or go to www.llwforum.org.

Northwest Compact/State of Utah

Energy*Solutions* to be Acquired by Energy Capital Partners

On January 7, 2013, Energy*Solutions* announced that it has entered into a definitive acquisition agreement to be acquired by a subsidiary of Energy Capital Partners II, LLC (”Energy Capital” or “ECP") in a transaction with an enterprise value of $1.1 billion. Under the terms of the agreement, which has been unanimously approved by the Energy*Solutions’* Board of Directors, Energy*Solutions’* shareholders will receive $3.75 in cash for each share of common stock. This represents a premium of approximately 20% over the average closing share price of Energy*Solutions*’ common stock for the 30 days ended January 4, 2013.

ECP plans to operate Energy*Solutions* as a standalone business operation with the current management team remaining in place.

Statement from Energy*Solutions*

“For our shareholders, this transaction offers compelling value, representing a substantial premium to our share price over recent months,” stated David Lockwood, CEO and President of Energy*Solutions*. “For our company, this transaction enables us to continue to execute on our strategic plan by providing the investment capital to expand and to grow our business. With over $7 billion of capital commitments under management, Energy Capital is one of the largest energy-focused private equity firms in the world, with extensive knowledge and deep relationships across the energy and utility sectors. In addition, as a result of this transaction, our company becomes part of the ECP network of portfolio companies, providing the ability to leverage the firm’s management, financial resources and operational expertise. As a private company with substantial financial backing, we will be able to better manage our business for the long-term in order to serve the best interests of our customers, employees, joint venture partners and other stakeholders.”

Statement from Energy Capital Partners

“We are excited to acquire Energy*Solutions*, one of the leading global environmental and nuclear services companies,” said Tyler Reeder, a Partner at ECP. “The Company employs an exceptionally talented workforce experienced in providing critical services to commercial customers and governmental agencies with a strong track record of environmental stewardship. We look forward to investing capital in support of management’s strategic vision to continue to expand the Company’s business both in North America and internationally. In particular, we see a tremendous opportunity for the Company to grow its decommissioning and disposal businesses in the United States, through strategic partnerships with large engineering and construction firms, expanding its services business with governmental agencies, and the rebidding of Magnox and other opportunities in Europe.”

Next Steps

The ECP acquisition of Energy*Solutions* is subject to customary closing conditions, including regulatory approvals in the U.S. and U.K. and clearance under the Hart-Scott-Rodino Act. In addition, the transaction is subject to approval by Energy*Solutions*’ stockholders.

Under the terms of the merger agreement, Energy*Solutions* may solicit superior proposals from third parties through February 6, 2013. The Energy*Solutions* Board of Directors, with the assistance of its advisors, will actively solicit acquisition proposals during this period. There are no guarantees that this process will result in a superior proposal. Energy*Solutions* and the Board of Directors do not intend to disclose

developments with respect to the solicitation process unless and until the Board of Directors has made a decision.

Goldman, Sachs & Co. is serving as financial advisor to Energy*Solutions* and Skadden, Arps, Slate, Meagher & Flom LLP is acting as legal advisor to Energy*Solutions*. Morgan Stanley is serving as financial advisor and Latham & Watkins, LLP is acting as legal advisor to ECP. Morgan Stanley is also committing to provide senior secured credit facilities to help finance the acquisition, and will act as a lead arranger and book-runner in the financing.

Background

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

Energy Capital Partners is a private equity firm with offices in Short Hills, New Jersey and San Diego, California. Energy Capital Partners has over $7 billion of capital commitments under management and is focused on investing in the power generation, electric transmission, midstream gas, renewable energy, oil field services and environmental services sectors of North America's energy infrastructure. The fund's management has substantial experience leading successful energy companies and energy infrastructure investments. For more information, visit www.ecpartners.com.

For additional information, please contact Mark Walker of EnergySolutions at (801) 649-2194.

Utah Radiation Control Board Holds January 2013 Meeting

On January 8, 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 pm.

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

I. Welcome

II. Minutes (Board Action)
   a. Approval of the Minutes from the November 13, 2012 Board Meeting

III. Election of Board Chair and Vice-Chair (Board Action)

IV. Indoor Radon Program (Board Information)
   a. January 2013 – Radon Action Month
   b. Activities Update
   c. Recognition of Outstanding Support

V. Legislative Auditor General – Performance Audit Report of DRC [2012-10] (Board Information)
   a. Legislative Auditors Presentation
   b. DRC Presentation

VI. Administrative Rules (Board Action)
   a. Changes from Executive Secretary to Division Director per S.B.21 – Approval to Initiate Rulemaking and Public Comment
   b. R305-2 Electronic Meeting – 5 year Review Approval

VII. Radioactive Materials Licensing / Inspection
   a. Introduction of New Staff

VIII. X-Ray Registration / Inspection
   a. Mammography Imaging Medical Physicists (MIMPs) approval

IX. Informational Items
   a. Low-Level Radioactive Waste Disposal—Energy*Solutions*
      i. Class A West – combined disposal embankment approval
      ii. License/Permit Renewals
         1. 11e.(2) Stakeholder Meeting
         2. Radioactive Materials
         3. Ground Water Permit
   b. Uranium Mills
      i. Energy Fuels Resource (White Mesa Mill)
         1. Permit Renewal
         2. Groundwater Protection
   c. Other Division Items
      i. Fourth Quarter 2012 Activity Report
   d. NRC Activities
      i. Branch Technical Position – Import of Non-U.S. Origin Radioactive Sources
      ii. Site-Specific Analysis Rulemaking (10 CFR Part 61, Licensing Requirements for Land Disposal of Radioactive Waste)
      iii. Draft Comparative Environmental Evaluation of Alternatives for Handling Low-Level Radioactive Waste Spent Ion Exchange Resins from Commercial Nuclear Power Plants

X. Public Comment

XI. Next Scheduled Board Meeting: February 12, 2013 (Tuesday)
Multi Agency State Office Building
Conference Room 1015
195 North 1950 West
Salt Lake City, Utah

The Radiation Control 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.

Utah DRC Holds Briefing re Energy*Solutions'* 11e.(2) Byproduct Material Disposal License Renewal Application

On January 16, 2013, the Utah Division of Radiation Control (DRC) conducted a briefing regarding Energy*Solution's* 11e.(2) License Renewal Application. The presentation began at 2:00 p.m. in the Utah Department of Environmental Quality's (DEQ's) Main Board Room at 195 North 1950 West in Salt Lake City, Utah.

The briefing was to Energy*Solutions* and included present information regarding the DRC's review of the 11e.(2) Byproduct License Renewal Application. An invitation was extended to the public to hear the presentation and become educated on the topic.

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.

Comments Solicited re Changes to Utah Administrative Rules

The Utah Radiation Control Board (Board) is soliciting public comment regarding proposed changes to the administrative rules for control of radiation.

Background

During the 2012 General Session, the Utah Legislature passed and Governor Herbert signed S.B. 21, Department of Environmental Quality (DEQ) Board Revisions. In addition to making changes to the authority and makeup of the five environmental boards in DEQ, S.B. 21 also transferred various authorities from the Board and the Executive Secretary of the Board to the Division Director. As a result of these statutory revisions, corresponding changes to the administrative rules are necessary.

Proposed Changes

The proposed changes that involve transferring authority from the Board to the Division Director are substantive. These substantive changes require a public comment period and subsequent final approval by the Board.

Submitting Comments

Written comments were accepted beginning February 1, 2013 and must be received no later than the close of business on March 4, 2013. Written comments need to be directed to: Rusty Lundberg, Director; Utah Division of Radiation Control; 195 North 1950 West; P.O. Box 144850; Salt Lake City, UT 84114-4850.

Information regarding the rulemakings may be obtained by contacting Craig Jones, Division of Radiation Control, at (801) 536-4250. Additional information about the proposed substantive changes may be obtained at http://www.radiationcontrol.utah.gov/Board/SB21_info.html.

Southeast Compact Commission

Southeast Compact Commission Meets in Kissimmee, Florida

On February 7-8, 2013, the Southeast Compact Commission for Low-Level Radioactive Waste Management met at the Embassy Suites – Orlando Lake Buena Vista South at 4955 Kyngs Heath Road in Kissimee, Florida.

Committee Meetings

On February 7, the Policy and Planning Committee met at 1:00 p.m. in Magnolia A to consider amendments to the Policy Statement on the Management of Low-Level Radioactive Waste and to develop possible recommendations to amend the Strategic Plan.

The Administrative Committee then met at 3:30 p.m. in Magnolia A. The committee discussed the Commission's investments and financial practices and other matters as they come before the committee.

Commission Meeting

On February 8, the Southeast Compact Commission's 101st business meeting began at 9:00 a.m. in Magnolia A.

The Commission received committee reports and conducted other business as it came before the Commission.

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

Southwestern Compact Commission

Southwestern Compact Commission Hosts Annual Generators /Brokers Workshop

In late January 2013, the Southwestern Low-Level Radioactive Waste Compact Commission hosted two separate one-day workshops for generators and brokers of low-level radioactive waste.

Logistics

Dates and Locations The Northern California event / workshop was held at the Double Tree by Hilton -San Francisco Airport in Burlingame on January 29, 2013. Two days later, a Southern California event / workshop was held at the Double Tree by Hilton – Ontario Airport. The agenda was scheduled from 9:00 am – 3:00 pm and was the same at both locations. The Southwestern Compact Commission offered the event / workshop at two locations for the convenience of attendees and to limit travel expenses.

Registration Advance registration was required in order to reserve a seat. The registration fee for each workshop was $200 per individual. The registration fee included all handouts, refreshments, lunch and all the talks/topics presented. Registration at both locations was scheduled from 8:00 am – 9:00 am.

Additional Information Entities were offered an Advertising Table Display at either location. This opportunity required no additional charge, as the events / workshops were intended as educational programs. Attendees were invited to bring laptop computers to download presentations.

Agenda

The following topics and speakers were listed on the event / workshop draft agendas, although the speakers / topics were subject to change:

- Impact Services bankruptcy update
  Speaker: Meghan Turvey, Vice President of Philotechnics
  Ms. Turvey is directly involved with working with the State of Tennessee seeking solutions to assist generators that may have waste onsite needing processing and disposal.

- Qal-Tek update
  Speaker: Anthony Borland, Radiation Safety Officer for Qal-Tek
  Mr. Borland discussed their experience of storage of portable sealed sources, "custody" forms signed by generators and requirements for safe disposal to Waste Control Specialists (WCS) in Andrews, Texas working with the Southwestern Compact.

- SCATR: Source Collection and Threat Reduction Program
  Speaker: Ruth McBurney, Conference of Radiation Control Program Directors (CRCPD) SCATR Administrator
  The U.S. Department of Energy/National Nuclear Security Administration (DOE/ NNSA) and CRCPD entered into a cooperative agreement to support sealed source consolidation and disposal at the state level. NNSA funds the program, whereas CRCPD administers it. The goal of this partnership dedicated to radiation protection is to collect unused sealed sources that could in aggregate be used maliciously.

- *Morning Break (mid-morning refreshments and opportunity to visit table top displays)*

- California Radiological Health Branch
  Speakers: Steve Hsu, Senior Health Physicist; Roger Lupo, Health Physicist; John Fassell, Chief for Inspection, Compliance and Enforcement; and, Robert Greger, Senior Health Physicist—Southern California
  Topics discussed included the storage of sealed sources, custody of sealed sources, what is needed for an onsite state audit, reporting requirements and renewing my state license—does location matter?

- *Lunch Break*

- Waste Control Specialists: Texast – Vermont Compact Site Contractor
  Speaker: Jeff Havlicak, Manager of Business Development
  Topics discussed included the need for Texas – Vermont contracts and WCS agreements; information on requirements and standards to send A, B & C wastes to WCS; requirements for B & C sealed sources and is there a time limit; what are the annual limits set by the Texas legislators for non-compact waste; does Texas want our waste; will this change; and, is there enough space for the future?

- *Afternoon Break (refresh coffee and snack)*

- Energy*Solutions* of Utah
  Speaker: Daniel Shrum, Senior Vice President of Regulatory Affairs
  Topics discussed included disposal of Class A sealed sources; why there is a time limit for this service; status of depleted uranium; blending; mixed waste; SEMPRASAFE; various processing locations in the United States; and, what can we expect for the future of Energy*Solutions?*

- Southwestern Compact
  Speaker: Kathy Davis, Executive Director
  Topics discussed included purpose/ federal law of compact; petitions; filing dates for Petitions and Disposal Reports; and, what happens if your materials leave the compact without a Petition.

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

Texas Compact/State of Texas

Bill Introduced re Funding of Texas Compact Commission

On February 4, 2013, Texas State Senator Kel Seliger introduced SB 347—an Act relating to funding for the operations of the Texas Low-Level Radioactive Waste Disposal Compact Commission.

As introduced, the legislation proposes to amend Subsections (b) and (c) and add a new Subsection (b-1) of Section 401.521 of the Texas Health and Safety Code as follows:

(b) The commission shall deposit in the account the portion of the fee collected under Section 401.245 that is calculated to support the activities of the Texas Low-Level Radioactive Waste Disposal Compact Commission as required by Section 4.04(4), Texas Low-Level Radioactive Waste Disposal Compact (Section 403.006 of this code). <u>The fee shall be assessed for party state compact waste and nonparty compact waste.</u>

<u>(b-1) On the first day of each state fiscal year, the comptroller shall transfer from the low-level radioactive waste fund to the low-level radioactive waste disposal compact commission account an amount equal to the amount</u>

appropriated for that state fiscal year. On September 30 of each fiscal year, the comptroller shall transfer the unexpended and unencumbered money from the previous fiscal year in the low-level radioactive waste disposal compact commission account to the low-level radioactive waste fund.

(c) Money in the low-level radioactive waste disposal compact commission account may be used [appropriated] only to support the operations of the Texas Low-Level Radioactive Waste Disposal Compact Commission.

As introduced, SB 347 proposes that the Act takes effect September 1, 2013.

SB 347 was referred to the Natural Resources Committee on February 5, 2013.

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

Texas Compact Commission Meets at TCEQ Campus

The Texas Low-Level Radioactive Waste Disposal Compact Commission (Texas Compact Commission) held a meeting on January 31, 2013. The meeting was held at the Texas Commission on Environmental Quality (TCEQ) campus at 12100 Park 35 Circle in Austin, Texas 78753. The meeting, which was held in Room E201S, began at 9:00 am.

The following is an abbreviated overview of the agenda for the January 31 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 and possible action with respect to resolving the questions or when a waste becomes a waste for the purposes of the applicability of Commission rules;
- update on issues and progress of the Disposal Allotment Committee;
- consideration of and possible action on requests for amendments to agreements for importation of low-level radioactive waste from Exelon Generation Company, Thomas Gray and Associates, and Studsvik Processing Facility Erwin;
- consideration of and possible action on applications and proposed agreements for importation of low-level radioactive waste from Qal-Tek Associates, Studsvik Processing Facility Erwin, U.S. Environmental Protection Agency, Exelon Generation Company, Pacific Gas & Electric Company/Diablo Canyon, and Philotechnics;
- update on issues and progress of the Exports Committee;
- consideration of and possible action on applications and proposed agreements for exportation of low-level radioactive waste from Arcelor Mittal Vinton and Baylor College of Medicine;
- receive reports from the Texas Commission on Environmental Quality (TCEQ) on the status of the TCEQ rate rulemaking; status of pending Waste Control Specialists (WCS) license amendment applications; method of tracking out of compact disposal quantities in connection with current WCS license limits and in connection with Texas law; and, any other matter TCEQ wishes to bring to the attention of the Texas Compact Commission;
- receive report from WCS about recent site operations; pending license amendment applications; expectations for utilizing the full allocation of volume and curies for the non-compact waste through April 26, 2013; and,

any other matter WCS wishes to bring to the attention of the Texas Compact Commission;
- consideration of and possible action on a voluntary response to late-filed comments by the Seed Coalition et al with respect to the adoption of 31 TAC 675.23 *Importation of a Waste from a [Non-Compact] Nonparty Generator for Disposal;*
- consideration of and possible action on the retention of an auditor;
- consideration of and possible action on renewal of web-hosting contract;
- consideration of and possible action on report(s) to legislative and executive branch agencies pursuant to the Compact Law compiled at Section 403.006, Texas Health and Safety Code, and any other reports to be filed pursuant to fiscal reporting procedures;
- 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 Texas Compact Commission operations;
- discussion and possible changes of dates and locations for remaining fiscal year 2013 meetings; and,
- adjourn.

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.

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

Texas Compact Commission/State of Texas

TCEQ Issues Biennial Report to 83rd Legislature

In December 2012, the Texas Commission on Environmental Quality (TCEQ) issued its Biennial Report to the 83rd Texas Legislature. This report, published every December prior to a regular legislative session, describes the TCEQ's Fiscal 2011 and 2012 programs, services, and results.

In particular, the following two sections of the report may be of interest to stakeholders: Chapter 2 on Activities Related to Radioactive Waste Management and Chapter 3 on Legislation from the 82nd Legislative Session.

Please note, however, that some sections of the report are already a little out of date. Specifically, the rate case has been remanded back to TCEQ because protestants all withdrew. In addition, the Federal Facility is constructed and ready to receive waste for disposal. Nonetheless, the report provides a good overview of the agency's activities for Fiscal 2011 and 2012.

The entire report can be found at http://www.tceq.texas.gov/publications/sfr/057_12/index.

Chapter 2: Disposal of Low-Level Radioactive Waste

The following is an excerpt from Chapter 2 of the biennial report summarizing activities related to the disposal of low-level radioactive waste:

> In 2009, the TCEQ issued a license to Waste Control Specialists LLC (WCS) authorizing the operation of a facility for disposal of low-level radioactive waste

(LLRW) in Andrews County in West Texas.

The low-level radioactive waste generated in the Texas LLRW Disposal Compact, comprising the states of Texas and Vermont, will be disposed of in the compact's waste-disposal facility, as will accepted non-compact wastes. A separate, adjacent facility, which was authorized by the same license, will accept low-level radioactive waste and mixed waste (waste that contains both a hazardous and a radioactive constituent) from federal facilities. This facility will be owned by the Department of Energy (DOE), should a contract between WCS and DOE be approved.

In January 2011, the TCEQ authorized WCS to begin construction of the LLRW disposal facility. In April 2012, the TCEQ issued a letter authorizing WCS to accept waste in the compact's waste-disposal facility. The first shipment of low-level radioactive waste was received and disposed of by WCS that same month. With this facility now accepting waste, the TCEQ's resident inspectors inspect every shipment and approve waste before Texas takes title.

Construction of the initial phase of the federal disposal facility was nearing completion and, if approved, will be available for operations once WCS and DOE successfully negotiate and approve a contract.

The wastes disposed of in the compact facility will generally include paper, plastic, glass, resins, metals, radiography tools, equipment, and other materials that have been contaminated by or contain radionuclides that meet the classification of low-level radioactive waste under state and federal regulations. These wastes are commonly generated by nuclear power plants, diagnostic and therapeutic nuclear medical facilities, industry, universities, and state governments.

Waste sent to the adjacent federal facility could include contaminated soil and debris from federal facilities. Neither disposal facility is authorized to accept high-level radioactive wastes, such as spent nuclear fuel rods or weapons-grade plutonium.

By law, the TCEQ is responsible for setting rates for the disposal of low-level radioactive waste at the compact facility. In June 2010, WCS submitted a waste disposal rate application to the TCEQ for review. In August 2011, the TCEQ recommended an interim disposal rate that is "reasonable and necessary" to protect Texas and Vermont businesses and services.

In January 2012, the TCEQ filed the notice of the LLRW rate application and the preliminary rate decision, which created the opportunity for a contested-case hearing. LLRW Compact Generators requested a contested-case hearing, and in May the TCEQ executive director referred the request to the State Office of Administrative Hearings.

Upon completion of this process, the recommended rates will be referred to the commission for consideration of adoption through expedited rulemaking.

Chapter 2 of the report can be found at http://www.tceq.texas.gov/publications/sfr/057_12/waste.

Chapter 3: Legislation from the 82nd Legislative Session.

During the regular legislative session in 2011, lawmakers considered 978 bills that had the

potential to affect TCEQ programs and activities. Of those, about 240 bills were passed and signed into law. One measure in particular, the agency's Sunset legislation, created many new and enhanced duties for agency employees. Divisions throughout the agency spent a year or more drafting new rules, creating new programs, revising existing requirements, and updating print and online documents.

The following are excerpts from Chapter 3 of the biennial report summarizing 82nd legislative session bills regarding the Sunset review and issues related to the Texas Low-Level Radioactive Waste Disposal Compact and the management and disposal of low-level radioactive waste:

HB 2694 Sunset Review

The Sunset Advisory Commission (SSAC) began its review of the TCEQ in September 2009. The overall purpose of a Sunset review is to determine whether an agency should continue to operate, while also evaluating how it manages its programs, fulfills its mission, and responds to its customers.

After completion of the review in January 2011, the SSAC commissioners adopted recommendations that became the basis of the introduced version of the TCEQ Sunset legislation, House Bill 2694. The legislation, co-sponsored by State Representative Wayne Smith, Chairman of the House Environmental Regulation Committee, and State Senator Joan Huffman, included a recommendation to continue the agency until 2023, the maximum-allowed 12 years.

HB 2694 addressed a wide range of issues affecting many areas of the agency. In addition, some programs were transferred. Those transfers involved sending one program (nine FTEs) to the Railroad Commission of Texas and absorbing the duties of the now-abolished Texas On-site Wastewater Treatment Research Council.

The adopted version of HB 2694 included not only the recommendations that originated with the SSAC, but also expansions of some of those recommendations, as well as other issues that arose outside of the SSAC recommendations.

SSAC recommendations:

- Transfer the TCEQ surface casing program to the Railroad Commission.
- Increase the statutory maximum for environmental penalties.
- Require the TCEQ to adopt in rule a general enforcement policy.
- Expand the use of Supplemental Environmental Projects by local governments.
- Require the agency to review water basins that do not have a Watermaster Program.
- Establish a central point of contact in the executive director's office to provide public assistance and education.
- Establish additional requirements for water use reports.
- Require the distribution of electronic copies of water rate applications.
- Require the commission to develop public interest factors for use by the Office of Public Interest Council.
- Repeal three water-related fees.

SSAC recommendations that were expanded:

- Clarify the executive director's authority to curtail water.
- Revise the Compliance History Program.
- Modify the Dam Safety Program.

- Revise the activities and fees governing the remediation program for leaking petroleum storage tanks.

Issues that did not originate as SSAC recommendations:

- Establish requirements for permits to comply with federal Maximum Achievable Control Technology (MACT).
- Allow e-mail notification for water utility rate changes and statements of intent.
- Change the Contested Case Hearing process.
- Establish deadlines for the TCEQ review of the water management plan submitted by the Lower Colorado River Authority.
- Revise requirements for annual financial reports filed by water districts.

SB 1605

SB 1605 clarified that the Texas Low-Level Radioactive Waste Disposal Compact Commission (TLLRWDCC) is an independent entity and not a program, department, or other division of the TCEQ.

The TLLRWDCC is required to submit biennial reports to the Legislature, be represented in legal matters by the state attorney general, and be subject to audits by the state auditor.

Furthermore, the TLLRWDCC is subject to the Sunset Act as if it were a state agency, except that it may not be abolished.

The bill also set the service of the eight TLLRWDCC commissioners (six from Texas and two from Vermont) as staggered six-year terms. The terms of two Texas commissioners expire September 1 of each odd-numbered year. Texas and Vermont are the two states that belong to the Texas Low-Level Radioactive Waste Disposal Compact.

SB 1504

SB 1504 required the TCEQ, in coordination with the TLLRWDCC, to adopt rules establishing criteria and thresholds by which incidental commingling of waste from the compact and waste from other sources at a commercial processing facility is reasonably limited. The bill also implemented a statutory prohibition on the acceptance of waste of international origin. The TCEQ rules took effect in June 2012.

SB 1504 further directed the TCEQ to conduct three legislative studies regarding the compact waste disposal facility in West Texas, and submit them by December 1, 2012. The topics are:

- Capacity: Examine the available volume and curie capacity of the Compact waste disposal facility for the disposal of state Compact waste and non-Compact waste.
- Financial assurance: Review the adequacy of the financial assurance for the low-level radioactive waste site.
- Surcharge revenue: Examine the assessment of surcharges for the disposal of non-Compact waste at the Compact waste disposal facility.

SB 1504 further required the TCEQ Executive Director to establish interim disposal rates for state compact waste, which are only effective until the final rates are adopted by rule. It also provided

for the importation of non-compact waste at the low-level radioactive waste facility and established a 20 percent surcharge.

The Texas Health and Safety Code was amended to address the issue of timing, in case the compact waste disposal fee schedule goes through a contested case hearing. The fee schedule must be established no later than one year after the State Office of Administrative Hearing (SOAH) assumes jurisdiction of a case. Otherwise, the low-level radioactive waste disposal facility must cease operations until the rates are adopted by rule.

In early 2012, the TCEQ filed and published the licensee's compact waste disposal rate application. Seven Texas generators requested that the application be referred to SOAH for a contested case hearing. SOAH assumed jurisdiction in June 2012, which triggered the one-year period for the fee schedule. The contested case hearing is planned for February 20, 2013.

Chapter 3 of the report can be found at http://www.tceq.texas.gov/publications/sfr/057_12/chapter3.

For additional information, please contact Charles Maguire, Director of TCEQ's Radioactive Materials Division, at (512) 239-5308 or at Charles.Maguire@tceq.texas.gov.

U.S. Congress

Defense Authorization Bill Includes LLRW References

On January 2, 2013, President Barrack Obama signed into law H.R. 4310—an act to "authorize appropriations for fiscal year 2013 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year and for other purposes." The bill, which was enacted as Public Law 112-239 after being signed by the President, was originally introduced by Representative Howard "Buck" McKeon (R-CA25).

Section 3173 of Subtitle F of the bill, which is titled Improving the Reliability of Domestic Medical Isotope Supply, contains the following provisions which may be of interest to stakeholders:

Section 3173(c) states as follows:

(c) URANIUM LEASE AND TAKE-BACK.—

(1) IN GENERAL.—The Secretary shall establish a program to make low enriched uranium available, through lease contracts, for irradiation for the production of molybdenum-99 for medical uses.

(2) TITLE.—The lease contracts shall provide for the producers of the molybdenum-99 to take title to and be responsible for the molybdenum-99 created by the irradiation, processing, or purification of uranium leased under this section.

(3) DUTIES.—

(A) SECRETARY.—The lease contracts shall require the Secretary—

(i) to retain responsibility for the final disposition of spent nuclear fuel created by the

irradiation, processing, or purification of uranium leased under this section for the production of medical isotopes; and

(ii) to take title to and be responsible for the final disposition of radioactive waste created by the irradiation, processing, or purification of uranium leased under this section for which the Secretary determines the producer does not have access to a disposal path.

Section 3171(f) states as follows:

(f) RADIOACTIVE WASTE.— Notwithstanding section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101), radioactive material resulting from the production of medical isotopes that has been permanently removed from a reactor or subcritical assembly and for which there is no further use shall be considered low-level radioactive waste if the material is acceptable under Federal requirements for disposal as low-level radioactive waste.

International / Fukushima

NRC Discusses Implementing Orders for Post-Fukushima Improvements

On January 16, 2013, U.S. Nuclear Regulatory Commission staff met with industry representatives to continue discussions on schedules and guidance for actions stemming from recommendations of the NRC's Japan Near-Term Task Force, which examined issues raised by the Fukushima nuclear accident in March 2011. The meeting was held from 9:00 -11:30 a.m. in the Commission Hearing Room on the first floor of the White Flint North complex at 11555 Rockville Pike in Rockville, Maryland.

During the meeting, NRC management and industry executives discussed topics including:

- U.S. nuclear power plants' integrated plans for complying with three specific post-Fukushima actions the NRC ordered the plants to take in March 2012;
- efforts to better understand and analyze flooding and earthquake hazards;
- strategies to respond to extreme natural events resulting in the loss of power at plants; and,
- longer-term activities to resolve other recommendations.

The NRC continues to evaluate and act on the lessons learned from Fukushima to ensure U.S. nuclear power plants implement appropriate safety enhancements. Following direction from the agency's five Commissioners, the NRC's activities are being led by a steering committee comprised of senior NRC management. The agency has also established the Japan Lessons-Learned Project Directorate, a group of more than 20 full-time employees focused exclusively on implementing the task force's recommendations and related activities.

The public was provided the opportunity to ask the NRC staff questions about the process during the meeting, which was webcast and included a teleconference.

For additional information, please contact Richard Jervey at (301) 415-1073 or richard.jervey@nrc.gov.

Nuclear Power Plants and Other NRC Licensees

News Briefs for Nuclear Power Plants Across the Country

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

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

Appalachian Compact/Commonwealth of Pennsylvania

Susquehanna Nuclear Plant On January 14, 2013, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency has begun a Special Inspection at the Susquehanna nuclear power plant to review issues associated with an unplanned shutdown of the Unit 2 reactor on December 19, 2012. The plant—which is located in Salem Township (Luzerne County), Pennsylvania—is operated by PPL. The three-member Special Inspection Team was tasked with evaluating the circumstances surrounding the December 19 shutdown, when the reactor was at 18 percent power as it was returning to service from an automatic shutdown that took place on December 16. Among other things, the inspectors will independently assess operator performance and management oversight; the company's review of the event; and actions taken as a result of its review. The inspectors' work will build on earlier reviews done by the two NRC Resident Inspectors assigned to Susquehanna and by specialist inspectors who responded to the site immediately after the event. The inspectors reviewed the adequacy of PPL's immediate corrective actions to address equipment and operator performance issues prior to plant restart on December 26. A problem involving the feedwater system, which is normally used to supply water to the reactor vessel for steam production, was the cause of the December 19 shutdown. Specifically, all feedwater flow was temporarily lost when a valve failed to open as expected during plant startup. "While the most recent shutdown did not present any immediate safety concerns for the public or plant workers, it was preceded by unplanned reactor shutdowns on November 9 and December16," NRC Region I Administrator Bill Dean said. "Collectively, the shutdowns raise questions regarding operator performance, equipment reliability and, in the most recent event, decision-making. This inspection is warranted to further the NRC's understanding of these issues and the company's actions to address them." The NRC will issue a report on the results of the Special Inspection within 45 days of its completion.

Atlantic Compact/State of South Carolina

Oconee Nuclear Plant On January 30, 2013, NRC held a meeting with Duke Energy officials to discuss major projects at the Oconee nuclear power plant, which is located near Seneca, South Carolina—approximately 30 miles west of Greenville. The public was allowed to observe the meeting and the NRC staff were available to answer questions or provide additional information after the business portion of the meeting. During the meeting, NRC staff and Duke Energy officials discussed projects related to plant improvements designed to prevent or mitigate the effects of natural phenomena such as flooding or tornadoes. There were also discussions about work related to the plant's transition to different fire protection standards as well as enhancements to improve the plant's ability to cope with some other equipment failures.

Midwest Compact/States of Minnesota and Ohio

Prairie Island Plant On February 25, 2013, NRC staff held a regulatory conference with

officials of Northern States Power Company, Minnesota to discuss a preliminary inspection finding in the emergency preparedness area. The two-unit plant is located in Welch, Minnesota—28 miles southeast of Minneapolis. During the conference, NRC and company officials discussed the significance of the inspection finding, which involved the failure to follow and maintain the effectiveness of the plant's emergency plan. The finding did not represent an immediate safety concern. No decisions on the final safety significance or other NRC actions were made at the conference. Those decisions will be made by NRC officials at a later time. *The NRC inspection report in which the apparent violation is documented is publicly available on the NRC website http://www.nrc.gov/. The number to access the report is ML13024A420.*

Perry Nuclear Plant On January 18, 2013, NRC announced that the agency will continue the Perry Nuclear Power Plant in Column 3 of the agency's action matrix, despite a security finding and issues discovered with Perry's occupational radiation safety program. The NRC chose not to move Perry into Column 4 at this time because recent inspections found that the unresolved issues exist in the single area of occupational radiation safety and are not widespread. The NRC will conduct a follow-up inspection, after which a final determination on Perry's position in the action matrix will be determined. Perry is operated by FirstEnergy Nuclear Operating Company and is located in Perry, Ohio—approximately 35 miles northeast of Cleveland. "The NRC decided to deviate from its process and continue to monitor the plant in Column 3 because Perry's overall performance is adequate and has improved. Perry does not exhibit the widespread problems we normally see in Column 4 plants. Its challenges are confined to occupational radiation protection and we expect the plant to resolve them quickly," said NRC Region III Administrator Charles Casto. Perry entered Column 3 in 2011 as a result of a "white" finding and a "white" performance indicator in the occupational radiation protection area which evaluates the plant's ability to make sure radiation exposure to workers is effectively managed. The plant is operating safely and there were no overexposures to workers as a result of these issues. The NRC's inspection in response to these issues concluded that FirstEnergy did not resolve all the challenges with occupational radiation protection and the issues remain open. In addition, in January 2012, Perry had a "greater-than-green" finding in the security area which, according to a subsequent NRC inspection, is not indicative of current plant performance. By NRC process, the occupational radiation protection deficiencies and the security finding would normally result in the downgrade in the NRC's response to Column 4.The NRC will reassess the decision to keep the plant in Column 3 by conducting a follow-up inspection between May and July 2013. The inspection will determine if Perry has successfully resolved the performance challenges in occupational radiation protection and ensure these performance problems do not extend to other areas of plant performance. If the follow-up inspections show the problems have not been resolved, the NRC will take further actions and may move the plant to Column 4. The NRC's action matrix reflects overall plant performance. There are five columns in the matrix with Column 1 requiring a baseline level of inspections. A move up in columns results in an increased level of NRC oversight and inspections. *The deviation memo and NRC inspection reports are available through the NRC RIII Office of Public Affairs and the NRC's web site at http://adams.nrc.gov/wba.*

Southwestern Compact/State of California

San Onofre Nuclear Generating Station On February 12, 2013, NRC held a public meeting to discuss the status of its review of Southern California Edison Co.'s (SCE) proposed plan for restarting San Onofre Nuclear Generating Station Unit 2. The plant, operated by SCE, is located in San Clemente, California. During the meeting, NRC staff met with the public to discuss the status of its inspection and technical evaluation of SCE's response to the NRC Confirmatory Action Letter of March 27, concerning actions required to

be taken by the company to address steam generator tube degradation at San Onofre. The company's response to the Confirmatory Action Letter is available on the NRC website. A leak in a Unit 3 steam generator tube on January 31, 2012, led to the shutdown of that unit. The other reactor, Unit 2, was shut down for maintenance and refueling at the time. Subsequent inspections of the nearly new steam generators in both units found unexpected wear. Both units remain safely shut down and will not be permitted to restart until NRC has reasonable assurance they can be operated safely. Throughout the meeting, the public was provided an opportunity to ask questions of the NRC staff and Southern California Edison Co. officials and provide comments concerning the inspection and technical evaluation activities. "We want to provide the public with a status report on the NRC's inspection activities at San Onofre and our ongoing evaluation of Southern California Edison's proposal for restarting Unit 2," said NRC Region IV Administrator Elmo Collins. "We encourage interested members of the public to attend the meeting, ask questions and provide comments to the NRC staff about our ongoing review." *Questions or comments can be submitted to the NRC staff after the meeting at OPA4@nrc.gov.*

State of Nebraska

Fort Calhoun Nuclear Plant On January 8, 2013, NRC Commissioners were briefed by staff and interested stakeholders in a public meeting regarding efforts to return the Fort Calhoun nuclear power plant to service. The following day, on January 9, the Commissioners were briefed on a staff recommendation to require installation of filtered venting systems at a limited number of U.S. reactors. Both briefings were open to public observation and webcast. On January 28, 2013, NRC launched a series of inspections at the Fort Calhoun nuclear plant to examine the plant's restart checklist and evaluate a recent cooling water pump issue. The plant, operated by the Omaha Public Power District (OPPD), is located 19 miles north of Omaha, Nebraska. It has been closed since the April 2011 Missouri River floods. During the inspections, NRC will evaluate a condition, reported on December 2, 2012, involving four main water pumps incorrectly anchored using shorter bolts than required. The pumps, referred to by the operator as raw water pumps, provide the main cooling water from the Missouri River to the plant. Shorter bolts may have caused the pumps to be inoperable following extreme ground motion during an earthquake. Other NRC inspectors and headquarters personnel are reviewing various items from the restart checklist that include flooding, fire, and an ongoing safety culture evaluation. About 450 items need to be inspected for adequacy prior to any restart authorization decision under the NRC restart basis document. "As we continue our work to oversee OPPD's corrective actions to address the restart checklist, additional NRC inspectors are on site to ensure that the plant operator has taken the appropriate steps to replace the pump bolts," said Region IV Administrator Elmo Collins. The NRC inspectors will write a publicly available inspection report on their findings within 45 days of the end of the inspection.

State of New York

Nine Mile Point 1 and FitzPatrick Plants On February 19, 2013, NRC announced that the Nine Mile Point 1 and James A. FitzPatrick nuclear power plants will receive additional oversight from the agency as a result of a change in one of the indicators used to assess performance at U.S. reactors. Both plants are located in Scriba, New York. Nine Mile Point 1 is owned and operated by Constellation Energy Nuclear Group, LLC, while FitzPatrick is owned and operated by Entergy Nuclear Northeast. Based on data compiled at the end of the fourth quarter of 2012–and which has now been posted on the agency's web site—the Nine Mile Point 1 performance indicator for unplanned scrams, or shutdowns, per 7,000 hours of operation has changed. If a plant

(Continued on page 46)

Advisory Committee on Reactor Safeguards

ACRS Elects 2013 Leadership and Confirms Meeting Schedule

The U.S. Nuclear Regulatory Commission's Advisory Committee on Reactor Safeguards (ACRS) has elected Dr. J. Sam Armijo as Chairman, John W. Stetkar as Vice-Chairman and Harold Ray as Member-at-Large.

The ACRS, a group of experienced technical experts, advises the Commission, independently from the NRC staff, on safety issues related to the licensing and operation of nuclear power plants as well as issues of health physics and radiation protection.

The confirmed ACRS 2013 full-committee meetings schedule is available on the NRC web site at www.nrc.gov.

The complete listing of the ACRS membership and their bios can be found on the ACRS web page of the NRC web site.

For additional information, please contact the NRC's Office of Public Affairs at (301) 415-8200 or at opa.resource@nrc.gov.

U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, U.S. Department of Energy, U.S. Federal Energy Regulatory Commission, U.S. Nuclear Regulatory Commission and U.S. Geological Survey

Federal Workshop re Improving Extreme Flood Event Hazard Assessment

On January 29-31, 2013, the U.S. Nuclear Regulatory Commission hosted specialists from several federal agencies, contractors, industry, academia and other subject-matter experts to discuss improved methods to estimate extreme flood event frequencies. The workshop was held at NRC headquarters in Rockville, Maryland.

Background

This workshop was part of a research effort to inform future activities meant to incorporate event probabilities into a risk-informed approach for external hazards, in this case flood hazards. The workshop discussions were separate from ongoing NRC requirements for U.S. nuclear power plants to re-examine flooding hazards. Specialists from several NRC offices developed the workshop together with their counterparts at the U.S. Army Corps of Engineers, U.S. Bureau of Reclamation, U.S. Department of Energy, U.S. Federal Energy Regulatory Commission, and the U.S. Geological Survey.

Logistics

The workshop ran from 8:30 a.m. to 6:30 p.m. each day in the auditorium of the NRC's White Flint complex at 11555 Rockville Pike in Rockville, Maryland. The public was invited to observe in person or via live webcast, which was subsequently archived for later viewing. Each day concluded with a limited opportunity for the

public to ask questions and make comments on workshop topics.

Agenda

The workshop examined several issues, starting with the various agencies' flood-assessment needs for evaluating critical infrastructure. The workshop topics excluded licensing issues or discussion of specific plants and no regulatory decisions were considered.

U.S. Department of Energy

DOE Releases Used Nuclear Fuel and HLW Strategy

In January 2013, in response to recommendations by the Blue Ribbon Commission on America's Nuclear Future ("BRC" or "Commission"), the U.S. Department of Energy issued a 14-page document titled, *Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste* ("Strategy").

According to Secretary of Energy Steven Chu, the report presents "a framework for moving toward a sustainable program to deploy an integrated system capable of transporting, storing, and disposing of used nuclear fuel and high-level radioactive waste from civilian nuclear power generation, defense, national security and other activities."

The Strategy can be found at http://www.doe.gov/downloads/strategy-management-and-disposal-used-nuclear-fuel-and-high-level-radioactive-waste.

Background

In 2010, Secretary Chu chartered the BRC to conduct a comprehensive review and recommend a plan of action for the management and disposal of the nation's used nuclear fuel and high-level radioactive waste—which is also commonly referred to as the back-end of the nuclear fuel cycle. Representative Lee Hamilton and General Brent Scowcroft co-chaired the Commission, leading a panel of leading scientists, nuclear energy experts, industry leaders, and former elected officials.

For nearly two years, the Commission conducted a comprehensive review and ultimately made recommendations for addressing the waste challenges. According to Secretary Chu, the BRC's work "provides a strong foundation for development of a new strategy to manage used nuclear fuel and high-level radioactive waste … We will work with Congress to build a new national program based on this foundation."

Purpose

According to DOE, the Strategy addresses several important needs:

- It serves as a statement of Administration policy regarding the importance of addressing the disposition of used nuclear fuel and high-level radioactive waste; it lays out the overall design of a system to address that issue; and, it outlines the reforms needed to implement such a system.
- It presents the Administration's response to the final report and recommendations made by the BRC. It also responds to direction in the Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2012, to develop a strategy for the management of used nuclear fuel and nuclear waste in response to the BRC's recommendations.

It represents an initial basis for discussions among the Administration, Congress and other stakeholders on a sustainable path forward for disposal of nuclear waste.

According to DOE, the Administration endorses the key principles that underpin the BRC's recommendations. The BRC's report and recommendations provide a starting point for this

Strategy, which translates many of the BRC's principles into an actionable framework within which the Administration and Congress can build a national program for the management and disposal of the nation's used nuclear fuel and high-level radioactive waste. "The BRC report and the Strategy build on the body of physical and social science work completed during the prior decades and benefit from the lessons learned not only from our nation's experiences," states DOE,"but also from those of other countries."

Overview

"This Strategy includes a phased, adaptive, and consent-based approach to siting and implementing a comprehensive management and disposal system," states DOE. "At its core, this Strategy endorses a waste management system containing a pilot interim storage facility; a larger, full-scale interim storage facility; and, a geologic repository in a timeframe that demonstrates the federal commitment to addressing the nuclear waste issue, builds capability to implement a program to meet that commitment, and prioritizes the acceptance of fuel from shut-down reactors."

The Strategy states that a consent-based siting process could result in more than one storage facility and/or repository, depending on the outcome of discussions with host communities. Indeed, DOE points out that the Nuclear Waste Policy Act of 1982 (NWPA) envisaged the need for multiple repositories as a matter of equity between regions of the country. As a starting place, however, DOE's Strategy is focused on just one of each facility.

With the appropriate authorizations from Congress, the Administration currently plans to implement a program over the next 10 years that:

- sites, designs and licenses, constructs and begins operations of a pilot interim storage facility by 2021 with an initial focus on accepting used nuclear fuel from shut-down reactor sites;
- advances toward the siting and licensing of a larger interim storage facility to be available by 2025 that will have sufficient capacity to provide flexibility in the waste management system and allows for acceptance of enough used nuclear fuel to reduce expected government liabilities; and,
- makes demonstrable progress on the siting and characterization of repository sites to facilitate the availability of a geologic repository by 2048.

The Strategy cautions that full implementation of this program will require legislation to enable the timely deployment of the system elements noted above. "Legislation should also include the requirements for consent-based siting; a reformed funding approach that provides sufficient and timely resources; and the establishment of a new organization to implement the program, the structure of which should balance greater autonomy with the need for continued Executive and Legislative branch oversight," states DOE.

In the interim, DOE states that the Administration, through DOE, is undertaking activities within existing Congressional authorization to plan for the eventual transportation, storage, and disposal of used nuclear fuel. Activities range from examining waste management system design concepts, to developing plans for consent-based siting processes, to conducting research and development on the suitability of various geologies for a repository. "These activities are designed to not limit the options of either the Administration or Congress," states the Strategy, "and could be transferred to the new waste management and disposal organization when it is established."

For additional information, please contact the U.S. Department of Energy at (202) 586-5000 or at www.doe.gov.

DOE Secretary Chu Announces Resignation

In a letter to U.S. Department of Energy employees dated February 1, 2013, Energy Secretary Steven Chu highlighted progress made during the last four years and announced his decision not to serve a second term as Secretary. President Obama was reportedly informed of Chu's decision to resign a few days after the election. Chu plans to stay on as Secretary at least through the end of February.

In the letter to employees, Chu noted all of the progress DOE has made during his four-year tenure, including the ARPA-E program; the SunShot Initiative; increasing the production of renewable energy in the U.S., particularly wind and solar; and, the loan guarantee program and funding from the American Reinvestment and Recovery Act.

Chu is the third energy and environment-related cabinet member to announce his resignation.

The full text of Chu's letter is included below, for your information and convenience.

For additional information, please contact the U.S. Department of Energy's Office of Public Affairs at (202) 586-4910 or at www.doe.gov.

Letter from Secretary Chu dated February 1, 2013

Dear Colleagues:

Serving the country as Secretary of Energy, and working alongside such an extraordinary team of people at the Department, has been the greatest privilege of my life. While the job has had many challenges, it has been an exciting time for the Department, the country, and for me personally.

I've always been inspired by Dr. Martin Luther King, who articulated his Dream of an America where people are judged not by skin color but "by the content of their character." In the scientific world, people are judged by the content of their ideas. Advances are made with new insights, but the final arbitrator of any point of view are experiments that seek the unbiased truth, not information cherry picked to support a particular point of view. The power of our work is derived from this foundation.

This is the approach I've brought to the Department of Energy, where I believe we should be judged not by the money we direct to a particular State or district, company, university or national lab, but by the character of our decisions. The Department of Energy serves the country as a Department of Science, a Department of Innovation, and a Department of Nuclear Security.

I have worked each day to move the Department in a direction where the political leadership and highest levels of career managers have the intellectual curiosity and wisdom to learn from the people who reported to them and where the subject matter experts – which should include managers at the highest levels – as well as employees at our national laboratories welcome their counsel and help. I grew up and matured in organizations where a graduate student or staff scientist could have a discussion with a company department head, a professor, a national lab director and be heard, not because of their rank in the organization, but because of the quality of their ideas.

I came with dreams, and am leaving with a set of accomplishments that we should all be proud of. Those accomplishments are because of all your dedication and hard work.

- *Four years ago, ARPA-E was a vision described in the report, Rising Above the Gathering Storm. I was a member of that committee, but never dreamed that I would be asked to take the concept to reality. ARPA-E was designed to support high-risk, high reward technology development; to swing for*

game-changing home runs that can fundamentally transform energy technologies. The program has earned the respect of industry and academia for its outstanding funding choices, and active, thoughtful program management.

- *Its success was the result of the assembly of an extraordinarily talented group of individuals. This team would engage in active discussions that spilled into the evenings. They challenged each other with honest and frank discussions over their competing programs, and created an ARPA-E fellows program that was able to recruit some of the best recent graduates.*

- *What have been the early results? ARPA-E was described by Fred Smith of Fed Ex in his ARPA-E Summit Keynote address that in his opinion, ARPA-E was best government funding program he has ever seen. In the first few years, 11 of the companies funded with $40 million dollars have attracted more than $200 million in combined private investment. While it is too early to tell if we have home runs like ARPA-net, there are a number of investments that have certainly rounded second base.*

♦ *The spirit of ARPA-E is now being disseminated in other parts of the Department. The first transplant was a completely revitalized solar photovoltaic program that was dubbed SunShot. A small cadre of enthusiastic individuals led a transformation. Unsolicited feedback from industry and academia alike noted the dramatic increase in the quality of the program with essentially no increase in budget. One of the founding members of ARPA-E is now the Assistant Secretary of Energy Efficiency and Renewable Energy (EERE). Remarkably, a recent Forbes article described the changes now in progress with the lead, "quiet clean energy innovation revolution at the Department of Energy," and noted "a leap in the right direction and absolutely critical to creating a more flexible, innovation-focused DOE mission."*

♦ *I would love to describe what has been happening in many other specific areas of the Department, but my message would fill many more pages. In the last two years, we have issued two Grand Challenges to innovators in industry. The SunShot Challenge called for reducing the full cost of utility scale solar energy to $1/watt, which roughly equates to a levelized cost of electricity (LOCE) of 6 cents/kWh without additional subsidies created for the solar industry. This is close to the projected EIA cost of natural gas and the anticipated LOCE on a new natural gas electricity generator a decade from now. When we first discussed this goal, industry did not take it seriously. Today, they tell me that our input challenged them to rethink their road maps and now agree that it is an achievable goal.*

♦ *The President announced an EV Everywhere Challenge, with the goal to achieve plug-in hybrids or EVs with a 100 mile range at the same cost of owning and operating a comparable sized internal combustion engine car with 40 miles/gallon for 5 years.*

♦ *The batteries developed for plug-in EVs will also revolutionize the electrical distribution system and the use of renewable energy. Wind energy is already expected to reach grid parity in less than a decade. Unless we develop new business models with utility companies and other stake holders, we will not be able to take full advantage of the accelerating pace of technology.*

♦ *We're also forging stronger partnerships with industry to give America's innovators and entrepreneurs a competitive edge in the global*

marketplace. We have held workshops with industry in materials, computation, solar PV, plug-in electric vehicles, and many other areas to actively engage companies to take better advantage of the Department's capabilities -- from our extraordinary user facilities to our scientists and engineers. In addition, numerous industry leaders have told me of a new found appreciation of our "convening" role in many areas of energy innovation, including innovations in energy finance. Going forward, this convening role and intellectual brainstorming sessions with industry will be increasingly valuable.

- *The Department has made significant progress in breaking down the walls between our basic science and applied science programs. The Office of Science and the Applied Energy programs have collaborated from the beginning in the design of Funding Opportunity Announcements. So-called "Tech teams" that span Energy, Science and APRA-E have started to meet regularly in areas such as solar energy, electricity transmission and distribution, computation, and biofuels. Brainstorming sessions where young scientists are encouraged to share ideas and joust with Department veterans have begun.*

There are also far more tangible signs of success.

- *In the last four years, the production of clean, renewable energy from wind and solar has doubled – driven in part by our Administration investments in the development and deployment of the latest technologies. Installations of solar photovoltaic systems have nearly doubled in each one of the last three years, exceeding 1.8 gigawatts in 2011. According to AWEA, last year 42 percent of new energy capacity in the U.S. was from wind – more than any other energy source.*

- *In addition to our approximately $25 billion annual budget, we were entrusted by Congress to make a $36 billion investment through the Recovery Act to help ensure that the clean energy jobs of tomorrow are being created here in America today. And we made this investment with a robust review process that brought a new level of expertise from inside and outside the Department to ensure that decisions were based on the merits of each applicant.*

- *The Department has helped <u>one million low income homeowners weatherize</u> their homes. We launched the President's Better Buildings Challenge which has secured $2 billion in commitments from more than 100 major companies, universities, hospitals, retailers, cities and states to upgrade 2 billion square feet of commercial and industrial space by 2020. To put that in perspective, that's more than 400 times the square footage of the Sears Tower.*

- *We administered a loan program authorized by Congress in the previous administration. The program generated a portfolio of loans and loan guarantees to 33 clean energy and advanced automotive manufacturing projects that will support 60,000 jobs and generate $55 billion in economic investment. Energy and infrastructure loan programs first put into action in the last four years are being replicated by numerous other countries around the world.*

This portfolio includes:

- *More than a dozen auto manufacturing plants built, reopened, or retooled – from Michigan to California to Tennessee – helping our auto industry compete and produce the next generation of American-made vehicles that will save consumers $1 billion a year on gasoline, including the first all-electric vehicle manufacturing plant in the world in Tennessee.*

- *The first national scale rooftop solar project that will include commercial buildings in up to 28 states*

- *The first nuclear power plants in the last three decades*

- *Wind farms, solar photovoltaic and concentrating solar power plants that will be among the largest in the world.*

In the last two years, the private sector, including Warren Buffett, Bank of America, Wells Fargo and Google, have announced major investments in clean energy. Originally skeptical lenders and investors now see that renewable energy will profitable. These investors are voting where it counts the most - with their wallet. As one CEO recently commented, "Solar is now bankable. When solar was perceived as more risky it required a premium."

Through the Recovery Act, the Department of Energy made grants and loans to more than 1,300 companies. While critics try hard to discredit the program, the truth is that only one percent of the companies of the companies we funded went bankrupt. That one percent has gotten more attention than the 99 percent that have not.

The test for America's policy makers will be whether they are willing to accept a few failures in exchange for many successes. America's entrepreneurs and innovators who are leaders in global clean energy race understand that not every risk can – or should – be avoided. Michelangelo said, "The greater danger for most of us lies not in setting our aim too high and falling short; but in setting our aim too low, and achieving our mark."

- *For decades, the Department of Energy, and the Atomic Energy Commission before it, has laid the scientific foundation that has led to transformative discoveries that have been recognized by over eighty Nobel Prizes and trained over forty students and early career scientists (including myself) who have gone on the receive Nobel Prizes. Synchrotron light sources have transformed cancer drug discovery and the battery chemistry being installed to the Chevy Volt. To accelerate this progress, the Office of Science formed 46 Energy Frontier Research Centers (ERCs) in 2009. Those centers have published more than 2,400 peer-reviewed papers, produced 55 patent applications and filed nearly 125 additional patent/invention disclosures. Most importantly, they have made significant scientific breakthroughs in areas ranging from advanced battery technology and solar energy to solid-state lighting and nuclear energy.*

- *Building on the success of the Bioenergy Research Centers started by Sam Bodman, we launched a set of Energy Innovation Hubs that bring together a multidisciplinary team of scientists, engineers, and industry partners to work on energy challenges. These Hubs include the use of supercomputers to improve the safety and performance of nuclear reactors, the integration of materials, designs and systems for more economical, energy efficient buildings, and science that could lead to the direct conversion of solar energy into transportation fuels. In the last two years, we also announced Hubs to dramatically improve energy storage systems and one to address the supply and use of critical energy materials.*

- *During the past four years, the Department reclaimed the lead in high performance supercomputing. Much more importantly, we are working harder use the extraordinary capabilities to achieve our nuclear security, scientific research and industrial competitiveness goals. In the last several years, the DOE has collaborated with industry to eliminate expensive and time consuming engineering prototyping in applications as varied as simulations that have been used to optimize diesel and jet engines, tire treads and the safety of nuclear reactor fuel assemblies.*

This work adds directly to our industrial competitiveness and job growth in America. In the past two years, we have held several additional workshops specifically to foster industrial collaborations.

- *We mobilized experts from the Department and our National Laboratories to play a key role in times of national need. The President personally tasked me to help BP stop the massive oil leak the resulted from the Deepwater Horizon disaster. Beginning with a small team of scientists and engineers that worked many long hours each day for three very intense months, we assessed the damage to the blowout preventer, and significantly mitigated many risks in the effort to cap, seal and ultimately kill the runaway well. Well over a hundred national lab employees toiled days, nights, weekends and holidays to perform detailed analyses that earned the respect and admiration of the BP engineers and undeniably changed BP's plans for the better. In the course of these actions, the Department also played a major role in estimating the amount of oil that was released into the Gulf. Two and half years later, this estimate has stood the test of time and scrutiny.*

After the Fukushima Daiichi nuclear meltdown, other teams of DOE scientists, engineers, and emergency responders acted with admirable competence, commitment and composure.
In the wake of Hurricane Sandy, the Department assisted FEMA to help speed the response effort. As the result of our collaboration during Sandy, FEMA has asked for the Administration to support the creation of a 24/7 energy emergency response center.

- *The President tasked the Department of Energy Advisory Board to form a sub-committee to bring together a team of industry, environmental, and scientific leaders to recommend a path forward with industry and regulators to recover our vast shale gas resources in a safe, environmentally responsible manner.*

- *The Department played the crucial role in launching the Clean Energy Ministerial, in which more than 20 countries with more than 80% of the world's GDP come together not to argue, but to share best practices. We are working to improve energy efficiency, speed the spread of renewable power and mobilize talent from around the world to advance the clean energy revolution. With the help of a dedicated team in the Office of Policy & International Affairs, we held the first meeting in Washington, D.C. The second and third meetings were in Abu Dhabi and London, and this coming April, the fourth will be held in New Delhi.*

- *We also fostered cooperative agreements that resulted in three US-China Clean Energy Research Centers announced by President Obama and President Hu Jintao. The agreements focused on (i) developing cost-saving building efficiencies, (ii) the development of clean coal technologies such as carbon capture, utilization, and sequestration, and (iii) clean vehicles. The program of $150 million is equally funded equally by China and the U.S., with half of the investments made by industry in each country.*

- *In keeping with Congressional direction to develop appliance efficiency standards, we have greatly accelerated the development and finalization of standards on more than 40 household and commercial products – standards that are conservatively estimated to save consumers a total of $350 billion through 2030.*

- *Our nuclear security teams have removed 1,340 kilograms of highly enriched uranium and 35 kilograms of plutonium from vulnerable sites throughout the world—enough material for approximately 55 nuclear*

weapons – including cleaning out 8 countries of all highly enriched uranium.

- *The President secured ratification of the New Start Treaty, under which the U.S. and Russia agreed to further reduce the number of deployed warheads to lowest level since the 1950s – an 85 percent reduction from the darkest days of the Cold War. And over the last four years, we have worked with our partners to downblend more than 100,000 kilograms of weapons grade uranium from the former Soviet Union, converting it to peaceful purposes like U.S. civilian nuclear reactors. In fact, roughly 10 percent of America's electricity comes from uranium that once threatened the United States as part of the Soviet nuclear arsenal.*

- *We made historic progress in cleaning up nuclear contamination leftover from the Cold War, reducing the total footprint by nearly 75 percent and permanently cleaning up 690 square miles of contaminated land—an area more than 30 times the size of Manhattan.*

Despite this progress, the environmental clean-up projects still have considerable technical and project management challenges. As an example, the Waste Treatment and Immobilization Plant at Hanford is the most complex and largest nuclear project in history. For the past 6 months, I have been working with six extremely talented people, typically devoting 5-10 hours a week that include nights and weekends. We have also been working intimately with a restructured EM management team to overcome remaining challenges. We have invited ecologists in the State of Washington to join in our frank discussions and the DOE team is rebuilding trust that had broken down over the past decade. I am especially appreciative of Governor Gregoire for her trust and support over the past six months.

This team will continue working with EM and Washington State for months and possibly years. The scientific, engineering and management reform of the Waste Treatment Plant will continue, and I am optimistic that many of the issues that have been plaguing this project for over a half a dozen years will soon be resolved. We are also bringing in the scientific talent and commitment of many scientists and engineers that will allow us to fulfill our obligations more quickly and safely. As a consequence of this renewed effort, I predict that our country will potentially avoid hundreds of millions of dollars in additional costs over the coming decades.

I want to conclude by making a few observations about the importance of the Department of Energy missions to our economic prosperity, dependency on foreign oil and climate change.

- *The United States spent roughly $430 billion dollars on foreign oil in 2012. This is a direct wealth transfer out of our country. Many billions more are spent to keep oil shipping lanes open and oil geo-politics add considerable additional burdens. Although our oil imports are projected to fall to a 25 year low next year, we still pay a heavy economic, national security and human cost for our oil addiction.*

- *The average temperature of our planet is rising, with majority of the temperature increase occurring in the last thirty years. During the three decades from 1980 to 2011, the number of violent storms, floods, droughts, heat waves, wildfires, as tabulated by the reinsurance company Munich Re, has increased more than three-fold. They also estimate that the financial losses follow a trend line that has gone from $40 billion to $170 billion dollars per year. Most of those losses were not insured, and the country suffering the largest losses by far is the United States. As the President said in his recent Inaugural Address, "some may still deny the overwhelming judgment of science, but none can avoid the devastating impact of raging fires, and crippling drought, and more powerful storms."*

- *The overwhelming scientific consensus is that human activity has had a significant and likely dominant role in climate change. There is also increasingly compelling evidence that the weather changes we have witnessed during this thirty year time period are due to climate change.*

- *Virtually all of the other OECD countries, and most developing countries including China, India, Mexico, and Brazil have accepted the judgment of climate scientists.*

- *Many countries, but most notably China, realize that the development of clean energy technologies presents an incredible economic opportunity in an emerging world market. China now exceeds the U.S. in internal deployment of clean energy and in government investments to further develop the technologies.*

- *While we cannot accurately predict the course of climate change in the coming decades, the risks we run if we don't change our course are enormous. Prudent risk management does not equate uncertainty with inaction.*

- *Our ability to find and extract fossil fuels continues to improve, and economically recoverable reservoirs around the world are likely to keep pace with the rising demand for decades. As the saying goes, the Stone Age did not end because we ran out of stones; we transitioned to better solutions.*

- *The same opportunity lies before us with energy efficiency and clean energy. The cost of renewable energy is rapidly becoming competitive with other sources of energy, and the Department has played a significant role in accelerating the transition to affordable, accessible and sustainable energy.*

- *Ultimately we have a moral responsibility to the most innocent victims of adverse climate change. Those who will suffer the most are the people who are the most innocent: the world's poorest citizens and those yet to be born. There is an ancient Native American saying: "We do not inherit the land from our ancestors, we borrow it from our children." A few short decades later, we don't want our children to ask, "What were our parents thinking? Didn't they care about us?"*

Serving as Secretary of Energy during such a momentous and important time has been incredibly demanding but enormously rewarding. I've been continually impressed by the talent and commitment of the men and women of this Department.

While I will always remain dedicated to the missions of the Department, I informed the President of my decision a few days after the election that Jean and I were eager to return to California. I would like to return to an academic life of teaching and research, but will still work to advance the missions that we have been working on together for the last four years.

In the short term, I plan to stay on as Secretary past the ARPA-E Summit at the end of February. I may stay beyond that time so that I can leave the Department in the hands of the new Secretary. The journey that I began with you four years ago will continue for many years. I began my message talking about my vision of what I wanted to do with the Department. Some of those goals have been realized, and we have planted many seeds together. Just as today's boom in shale gas production was made possible by Department of Energy research from 1978 to 1991, some of the most significant work may not be known for decades. What matters is that our country will reap the benefits of what we have started.

It has been a great honor and privilege to work with all of you.

U.S. Environmental Protection Agency

EPA Administrator Lisa Jackson Resigns Post

In late December 2012, U.S. Environmental Protection Agency Administrator Lisa Jackson announced that she would resign her post. Jackson, who is widely credited with sweeping curbs on air pollution, subsequently stepped down shortly after President Obama's State of the Union address. In announcing her resignation, Jackson said that she was "ready in my own life for new challenges, time with my family, and new opportunities to make a difference."

Administrator's Statement and Accomplishments

"I want to thank President Obama for the honor he bestowed on me and the confidence he placed in me four years ago this month when he announced my nomination as Administrator of the Environmental Protection Agency," said Jackson in announcing her resignation. "At the time I spoke about the need to address climate change, but also said: 'There is much more on the agenda: air pollution, toxic chemicals and children's health issues, redevelopment and waste-site cleanup issues, and justice for the communities who bear disproportionate risk.' As the President said earlier this year when he addressed EPA's employees, 'You help make sure the air we breathe, the water we drink, the food we eat are safe. You help protect the environment not just for our children but their children. And you keep us moving toward energy independence…We have made historic progress on all these fronts.' So, I will leave the EPA confident the ship is sailing in the right direction, and ready in my own life for new challenges, time with my family and new opportunities to make a difference."

During her term, among other things, Jackson has been outspoken on climate change, limits on emissions from coal-fired power plants, dumping mining waste into streams and rivers, and the need to protect poor communities from experiencing a disproportionate amount of environmental harm. Throughout her tenure, EPA enacted a slew of rules including the first greenhouse gas standards for vehicles, cuts in mercury and other toxic pollution from power plants, and a tighter limit on soot.

President's Statement and Potential Successors

"Under her leadership, the EPA has taken sensible and important steps to protect the air we breathe and the water we drink, including implementing the first national standard for harmful mercury pollution, taking important action to combat climate change under the Clean Air Act, and playing a key role in establishing historic fuel economy standards that will save the average American family thousands of dollars at the pump while also slashing carbon pollution," said President Obama in a statement praising Jackson.

The President has not announced her successor, but two of the individuals that are believed to be leading candidates include Bob Perciasepe, EPA's Deputy Administrator, and Gina McCarthy, head of EPA's Air and Radiation Office. According to news reports, other possible successors include Kathleen McGinty, who headed the White House Council on Environmental Quality under President Bill Clinton, and Mary Nichols, head of the California Air Resources Board.

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comments received in response to the expanded 10 CFR Part 61 rulemaking.

Summary

The staff is proposing an integrated approach to revising 10 CFR Part 61. First, staff requests Commission approval to stop further efforts associated with SECY-10-0165. The staff believes that the current rulemaking under SRM-COMWDM-11-002/COMGEA-11-0002, which directed an amendment to the 2011 version of the draft proposed rule, accomplishes the Commission's original direction in SRM-SECY-08-0147, implements some of the options presented in SECY-10-0165, and meets the expanded direction in SRM-COMWDM-11-002/COMGEA-11-0002. The staff believes that this limited scope integrated rulemaking best accomplishes the Commission's direction with respect to 10 CFR Part 61, and a separate rulemaking would no longer be needed to address the issues raised in SECY-10-0165.

Second, the staff has evaluated public comments received in response to the expanded 10 CFR Part 61 rulemaking that the Commission directed the staff to prepare in SRM-COMWDM-11-002/COMGEA-11-0002. Based upon its review of these comments and consistent with this recommended integration effort, the staff does not believe that the current 10 CFR Part 61 rulemaking should be further expanded to include the additional issues raised in the public comments.

Background

Enclosure 1 illustrates the variety of directions issued to staff regarding the current proposed site-specific analysis rulemaking to revise the disposal requirements in 10 CFR Part 61, as well as future rulemaking activities pertaining to 10 CFR Part 61. Elements of this direction are described below.

SECY-10-0165: In SRM M100617B (dated July 1, 2010), the Commission directed the staff to outline an approach for a comprehensive revision to 10 CFR Part 61 that was risk-informed and performance-based, including the resources and the timeline for completing the rulemaking. In response to SRM M100617B, the staff prepared SECY-10-0165 (dated December 27, 2010) and described the need to engage stakeholders and solicit their views on whether there should be amendments to the current 10 CFR Part 61 before proceeding with any rulemaking. In the Commission paper, staff identified a number of options to develop risk-informed and performance-based low-level radioactive waste (LLW) disposal regulations:

1. Risk-inform the current waste classification framework at § 61.55.
2. Revise 10 CFR Part 61 in a comprehensive manner.
3. Develop a site-specific waste acceptance criteria (WAC).
4. Align 10 CFR Part 61 with international approaches.
5. Supersede direction given in SRM-08-0147.

The Commission subsequently directed the staff to prepare a notation vote paper summarizing the stakeholder feedback received on SECY-10-0165 by October 2014 and to provide suggestions, as well as a recommendation, for the Commission to consider. In response, the staff sponsored a series of public meetings in 2011 and 2012 on SECY-10-0165 to discuss the options presented in that paper. The 2012 meetings were conducted as joint meetings held in connection with the staff's public outreach efforts associated with SRM-COMWDM-11-002/COMGEA-11-0002 (dated January 19, 2012). The staff has collected feedback on the options presented in SECY-10-0165.

Additional Comments Received in Response to SRM-COMWDM-11-002/COMGEA-11-0002: Previously, in SRM-SECY-08-0147 (dated March 18, 2009), the Commission directed the staff to proceed with a limited rulemaking to amend 10

CFR Part 61 to include a requirement for a site-specific performance assessment for the disposal of large quantities of depleted uranium and other long-lived isotopes in a near-surface disposal facility. Although the current rule does not include an explicit site-specific performance assessment requirement, the Commission expects licensees and applicants will use performance assessment methodology to demonstrate compliance with 10 CFR Part 61. In a second SRM, SRM-SECY-10-0043 (dated October 13,2010), the staff was directed to include blended LLW streams as part of this rulemaking.

In 2009, the staff held a number of public meetings to solicit comments on LLW performance assessments (74 *Federal Register* 30175). Based on the comments received in connection with these meetings, the staff developed a technical basis document to support the rulemaking (Agency Document Access and Management System [ADAMS] Accession Number ML111040419) and shared it with the Agreement States. The draft proposed rulemaking language prepared in 2011would have required that licensees of currently operating LLW disposal facilities and future10 CFR Part 61 applicants conduct site-specific performance assessments to demonstrate compliance with the regulatory requirements to protect the general public from radiation doses consistent with § 61.41. In connection with the proposed performance assessment requirement, the staff also recommended that the time of compliance be specified at 20,000 years (ML111030586) to account for the presence of large quantities of long-lived isotopes that might be disposed of in a near-surface disposal facility. Additionally, the 2011 draft proposed rulemaking included a new requirement to conduct an intruder analysis under § 61.42 with a chronic exposure limit of 500 millirem/year. These analyses would identify additional restrictions or prohibitions that would be necessary at a particular disposal site for LLW with long-lived isotopes.

In addition to the rulemaking, the staff planned to prepare a separate guidance document for public review and comment. The staff then made the draft proposed rule text (ML111150205) publicly available in May 2011 and solicited public comment on it (76 *Federal Register* 24831). In August 2011, the staff briefed the Advisory Committee on Reactor Safeguards (ACRS) on the draft proposed rule text, including the basis for the recommended time of compliance. In September 2011, the ACRS issued a Committee Letter Report on the draft documents (ML11256A191). In a third SRM, designated SRM-COMWDM-11-0002/COMGEA-11-0002, and issued before the proposed rule package was sent to the Commission, the Commission directed the staff to amend the 2011 version of the draft proposed rule, and to seek public comment on the following four regulatory issues:

1. Whether licensees should be allowed to use International Commission on Radiological Protection (ICRP) dose methodologies in a site-specific performance assessment for the disposal of LLW.
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 established *a priori* but rather 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 analysis.
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 specific

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 SRM directed the staff to provide a revised proposed rule package to the Commission within 18 months. The SRM also directed the staff to conduct public outreach meetings to seek stakeholder comments on the four regulatory issues identified by the Commission and to engage Agreement State representatives. Overall, there has been public support for amending10 CFR Part 61 along the lines proposed by the Commission. The public comments received on the 2011 and 2012 versions of draft proposed rule language will be discussed in the Commission paper transmitting the revised proposed rule package consistent with SRM-SECY-08-0147 and SRM-COMWDM-11-002/COMGEA-11-0002.

In addition to the comments received on the four regulatory issues identified in SRMCOMWDM-11-002/COMGEA-11-0002, the staff received a number of additional public comments on the integrated 10 CFR Part 61 rulemaking.

Discussion

SECY-10-0165: In connection with the staff's 2012 public outreach effort, staff received some comments in support of Options 2, 4, and 5 of SECY-10-0165. Some of the stakeholders questioned the need for any additional rulemaking beyond the current limited-scope rulemaking, which suggests that some stakeholders prefer Options 1 and 3 (risk informing the current waste classification tables at §61.55 and developing a site-specific WAC).

Since receiving revised Commission direction in SRM-COMWDM-11-002/COMGEA-11-0002, staff has received some public feedback indicating a waning interest on commenting further on the SECY-10-0165 options. The reason given is that the intent of the Commission's direction in SRM M100617B has been fulfilled through plans to effectively complete two of the five options presented in SECY-10-0165 (specifically Options 1 and 3). For example, both staff and stakeholders recognize that implementing the WAC option, to address the disposal of large quantities of depleted uranium, blended LLW, and other waste streams containing long-lived isotopes, corresponds to Option 3 in SECY-10-0165. Stakeholders are also aware that the staff has received Commission direction to update the § 61.55 waste classification tables and in doing so, determine the classification of depleted uranium; this effort is scheduled to begin in fiscal year 2015. This action corresponds to Option 1 in SECY-10-0165.

The staff recommends that the Commission approve this integrated approach to the rulemaking and terminate efforts associated with pursuing the other options described in SECY-10-0165. Based on the comments received from stakeholders and on the staff analysis (Enclosure 2), staff sees no compelling reason to engage in further public discussions on the other rulemaking options proposed in SECY-10-0165.

SRM-COMWDM-11-002/COMGEA-11-0002: In response to the Commission's request for feedback on the four regulatory issues identified in the January 2012 SRM, the staff participated in six events, including three public meetings sponsored by the NRC staff. Stakeholder feedback on the four regulatory issues, including feedback from the Agreement States has been summarized in the regulatory basis document that has been developed in support of the current limited-scope rulemaking; those comments do not concern the issues discussed in this Commission paper.

In connection with those discussions, though, stakeholders also provided recommendations on five additional topics that they want the NRC to consider as part of the ongoing limited-scope rulemaking. Those stakeholder recommendations included:

1. Updating the existing waste concentration tables at § 61.55 to reflect the latest ICRP dose conversion factors and dose methodologies.
2. Revisiting the current regulatory basis for the duration of institutional controls at a LLW disposal facility, currently specified as 100 years in § 61.30, and extending it to 300years.
3. Revisiting earlier assumptions concerning the minimum reporting requirements for certain isotopes cited in the Part 20 Appendix G LLW shipping manifest.
4. Developing criteria for the disposal of greater-than-Class C (GTCC) LLW.
5. Developing clearance criteria for the disposal of low activity radioactive waste.

With respect to the first stakeholder recommendation to update the § 61.55 waste classification tables, the staff has already received direction from the Commission to budget resources to update those tables; this effort is scheduled to begin in fiscal year 2015. Further, incorporating a site-specific WAC would allow licensees to use updated dose conversion factors and dose methodologies in advance of any update to those tables. Accordingly, the goal of allowing updated dose conversion factors would be achieved through these efforts.

The staff determined that the second stakeholder recommendation to revisit the current regulatory basis for 100 years of active institutional controls is not necessary for three reasons. First, the staff is not aware of any new information that would compel it to re-examine the basis for this time period. Second, the current LLW regulations envision a period of passive controls, extending over a few hundred years following the 100-year period of custodial care, which would provide some additional protection against the disturbance of a LLW disposal site by an inadvertent intruder. Third, the active institutional control period is related to the 10 CFR Part 61waste classification system used to define Class A LLW. Because the duration of the active institutional controls is closely tied to that system, the staff believes that discussions concerning the duration of institutional controls are more appropriate for the later initiative to revise and update the § 61.55 waste classification tables.

The third stakeholder recommendation concerns the reporting of certain highly-mobile radionuclides as required by Appendix G of 10 CFR Part 20. The staff determined that there is sufficient interest in the Appendix G LLW shipping manifest requirements pertaining to these radionuclides to warrant further discussions with stakeholders. The staff intends to engage stakeholders in separate discussions on how existing guidance found in NUREG/BR-0204,"Instructions for Completing NRC's Uniform Low-Level Radioactive Waste Manifest," might be amended to address the concerns about shipping manifest requirements. The staff is planning to conduct these discussions in Phoenix, Arizona, following the annual Waste Management Conference in March 2013. Because these revisions involve a staff guidance document that is not directly related to this rulemaking, the staff does not plan to propose any changes to the shipping manifest requirements found in Appendix G of 10 CFR Part 20 at this time.

Considering the fourth stakeholder recommendation, the staff has determined that the current rulemaking is not the appropriate agency action to include the development of GTCC disposal criteria. Under the Low-Level Radioactive Waste Policy Amendments Act of 1985, Section 3(b)(1)(D), Congress assigned the Federal Government (in this case the U.S. Department of Energy) the responsibility for the disposal of GTCC waste. The existing Commission Policy is that GTCC waste shall be disposed of in a deep geologic repository (54 FR 22578) unless an acceptable disposal alternative meets with Commission approval as set forth in10 CFR § 61.55(a)(2)(iv).

Finally, the Commission previously decided to defer decision-making on low-activity radioactive waste and clearance levels. The staff is not aware

of any significant change that would prompt reconsideration of the Commission's deferred decision. Therefore, the staff does not believe that it is necessary to revisit this topic in this rulemaking.

Based on the stakeholder comments received and on the staff analysis (Enclosure 3), the staff does not recommend that the current limited-scope rulemaking be expanded to include those stakeholder suggestions.

Agreement State Views

As a part of the above-noted activities, staff reached-out to the Agreement States. The staff considered the Agreement States' comments when it developed the conclusions and recommendations described above. The Agreement States provided some feedback on potential revisions to 10 CFR Part 61. As part of those discussions, Agreement State representatives recommended that the staff consider the additional stakeholder-suggested regulatory changes being proposed. Some Agreement State representatives expressed the view that any revisions to 10 CFR Part 61 should not be such that they would compel the states to receive large quantities of depleted uranium. Views were also expressed that the current100-year duration for active institutional controls was sufficient whereas others felt that the duration should be extended to 300 years.

Recommendation

The staff recommends ending further efforts associated with SECY-10-0165. The staff also recommends that the Commission proceed with the integrated approach to revising 10 CFR Part 61. Staff efforts would focus on implementing Commission direction through this integrated limited scope rulemaking described above.

NRC to Host Workshop re Potential Revisions to Instructions for Completing Uniform LLRW Manifest

Phoenix, Arizona on March 1, 2013

On March 1, 2013, the U.S. Nuclear Regulatory Commission will host a workshop to gather comments for the possible revision to NUREG/BR-0204. Specifically, NRC staff is interested in gaining a better understanding of the issues associated with the reporting of several difficult-to-measure isotopes on shipping waste manifests.

The public workshop will be held immediately following the 2013 Waste Management Symposia. The workshop is being held in conjunction with the Symposia and being broadcast as a Webinar to draw in as many participants as possible. Comments received at the workshop –which will be held at the Sheraton Phoenix Downtown Hotel—will be incorporated in a draft document that will be issued for public comment at a later date. The NRC staff also encourages the submission of written comments on the matters to be discussed. Those comments may be submitted to www.regulation.gov under Project No. 0800.

Registration for the workshop will be held from 7:30 am – 8:00 am MST. The workshop is then scheduled to be held from 8:00 am – 1:00 pm MST.

A copy of the NRC's Federal Register notice with additional information can be found at http://www.gpo.gov/fdsys/pkg/FR-2013-02-20/html/2013-03850.htm.

Workshop Scope

The workshop—which will be run by staff from the NRC's Office of Federal and State Materials and Environmental Management Programs (FSMEMP)—will focus on possible revisions to

instructions for completing the uniform low-level radioactive waste manifest.

In particular, the NRC staff is interested in gaining a better understanding of the issues associated with reporting certain difficult-to-measure (DTM) radionuclides on shipping waste manifests as required by Appendix G of part 20 of Title 10 of the Code of Federal Regulations (10 CFR). In particular, based on their experience, some involved members of the public would like the NRC to update NUREG/BR-0204 to address the manifesting of Technecium-99 (Tc-99), Carbon-14 (C-14), Tritium (H-3), and Iodine-129 (I-129) to minimize over-estimation of activity. These isotopes are key contributors to groundwater dose and can lead to premature closure of low-level radioactive waste disposal facilities if over-estimated. Additionally, the NRC staff received comments from involved members of the public recommending that the NRC staff consider Chlorine-36 (Cl-36) during this effort so staff will also address the reporting of Cl-36 in the update to NUREG/BR-0204.

Workshop Agenda

The agenda is as follows:

7:30-8:00 am:	*Registration*
8:00-8:15 am:	NRC Welcome L. Camper, NRC/FSME
8:15-8:30 am:	Facilitator Opening Comments C. Cameron, Facilitator
8:30-8:45 am:	Background/NRC Requirements D. Lowman, NRC/FSME
8:45-9:45 am:	Panel Discussions
9:45-10:00 am:	*Break*
10:00-11:45 am:	Panel Discussions (continued)
11:45-12:00 pm:	*Break*
12:00-12:45 pm:	Facilitated Public Discussions
12:45-1:00 pm:	Closing Remarks A. Mohseni, NRC/FSME

The public workshop will include a panel of invited subject matter experts to discuss questions and comments regarding DTM isotope reporting issues. Following the panel session, interested members of the public will have an opportunity to pose questions and comment directly to the panelists. Pre-registration for this workshop is not necessary.

Webinar and Telephone Participation

Interested members of the public can participate in this workshop via webinar. The webinar registration link can be found at: https://www1.gotomeeting.com/register/909493521. Webinar ID is 909-493-521. After registering, instructions for joining the webinar (including a teleconference number and pass code) will be provided via email. All participants will be in "listen-only" mode during the presentation. Participants will have a chance to pose questions either orally after the panel discussions or in writing during the webinar.

A dedicated toll-free telephone line is also available to those members of the interested public who wish to participate in this workshop remotely. That toll-free telephone is (888) 455-9355, pass code 9515574.

Accessing NRC Information

Please refer to Docket ID NRC-2013-0035 when contacting the NRC about the availability of information regarding the workshop and proposed revisions. Interested stakeholders may access related information using any of the following methods:

- Federal Rulemaking Web Site: Go to http://www.regulations.gov and search for Docket ID NRC-2013-0035. Address questions about NRC dockets to Carol Gallagher at (301) 492-3668 or at Carol.Gallagher@nrc.gov.
- NRC's Agencywide Documents Access and Management System (ADAMS): Interested stakeholders may access publicly-available

documents online in the NRC Library at http://www.nrc.gov/reading-rm/adams.html. To begin the search, select ``ADAMS Public Documents" and then select ``Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at (800) 397-4209, (301) 415-4737, or by email to pdr.resource@nrc.gov.

- NRC's PDR: Interested stakeholders may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

Background

Part 20, Appendix G, ``Requirements for Transfers of Low-Level Radioactive Waste (LLRW) Intended for Disposal at Licensed Land Disposal Facilities and Manifests" requires that an NRC Uniform Waste Manifest (Shipping Paper and Container and Waste Description) be prepared for low-level radioactive waste intended for ultimate disposal at a licensed land disposal facility. The waste generator, collector, or processor who transports, or offers for transportation, low-level radioactive waste must prepare the manifest reflecting information requested on applicable NRC Forms 540 (Uniform Low-Level Radioactive Waste Manifest Shipping Paper) and 541 (Uniform Low-Level Radioactive Waste Manifest Container and Waste Description) and, if necessary, on an applicable NRC Form 542 (Uniform Low-Level Radioactive Waste Manifest Index and Regional Compact Tabulation). NRC Forms 540 and 540A must be completed and must physically accompany the pertinent low-level radioactive waste shipment. Per Appendix G of 10 CFR Part 20, the shipper of the waste must include, on the uniform manifest for the waste shipment, ``[t]he activity of each of the radionuclides H-3, C-14, Tc-99, and I-129 contained in the shipment." These isotopes are of concern because they were found to be especially important to safety from groundwater migration in the 10 CFR Part 61 Draft Environmental Impact Statement (ADAMS Accession No. ML060930564).

In SECY-13-0001, ``Staff Recommendations for Improving the Integration of the Ongoing 10 CFR Part 61 Rulemaking Initiatives" (ADAMS Accession No. ML12199A412), staff noted that involved members of the public have recommended that the earlier assumptions concerning the above isotopes cited in the 10 CFR Part 20, Appendix G should be revisited.

Unfortunately, the activities of H-3, C-14, Tc-99, and I-129 are DTM in the radioactive waste that is generated. Involved members of the public suggest that H-3, C-14, Tc-99, and I-129 are being over-estimated in current site inventory dose assessments because of a reliance on a default value when the amount of the physical isotope in question is below some lower limit of detection threshold for these isotopes. If true, the cumulative effect of this over reporting results in an over-estimation of the site inventory, thus, if reporting requirements are not updated, disposal sites may have to close prematurely due to over-estimation in site inventory dose assessments.

Additionally, the State of Texas required the performance assessment for the Waste Control Specialists (WCS) low-level radioactive waste disposal facility in Andrews County to address Cl-36 because it is also a key contributor to the groundwater dose and was analyzed in NUREG-1573, ``A Performance Assessment Methodology for Low-Level Radioactive Waste Disposal Facilities" (ADAMS Accession No. ML053250352). Cl-36 may also be over-reported because of minimum detection reporting criteria, thus it is included in the effort to update NUREG/BR-0204.

Involved members of the public would like the NRC to address the manifesting of these isotopes. The NRC staff believes it is possible to revise NUREG/BR-0204, Rev. 2 to provide improved reporting guidance for the DTM radionuclides

rather than making changes to 10 CFR Part 20. The NRC staff will also evaluate inclusion of Cl-36 in the update to NUREG/BR-0204, Rev. 2.

For additional information, please contact Don Lowman at (301) 415-5452 or at Donald.Lowman@nrc.gov or Tarsha A. Moon at (301) 415-6745 or at Tarsha.Moon@nrc.gov.

NRC to Host Regulatory Information Conference

March 12-14 in Rockville, Maryland

On March 12-14, 2013, the U.S. Nuclear Regulatory Commission will host the agency's 25th annual Regulatory Information Conference (RIC) at the Bethesda North Marriott at 5701 Marinelli Road in Bethesda, Maryland. More than 3,000 people are expected to attend the conference—which is being hosted by the NRC's Offices of Nuclear Reactor Regulation and Nuclear Regulatory Research—including industry executives, representatives from state governments, non-governmental organizations, individual community members, and representatives from more than 30 foreign countries.

Registration

The conference is free and open to the public, but registration is required. Conference agenda and online registration are now available by clicking the RIC 2013 button on the NRC website at www.nrc.gov. The deadline for online registration is February 26, 2013.

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

Statement from NRC Chairman

"This Regulatory Information Conference marks a quarter century of the NRC's annual information exchange among a diverse group that spans the U.S. nuclear industry, the public, government to non-governmental organizations, and international groups," said NRC Chairman Allison Macfarlane. "I believe that regulatory effectiveness is strengthened when there are open and transparent interactions with a common focus on safe and secure nuclear operations. The conference is a great opportunity to engage in productive dialogue and to share best practices, concerns, and perspectives."

Attendance and Program Information

The conference brings together NRC staff, nuclear plant owners, nuclear materials users, industry stakeholders, international regulators, special interest groups and the public to discuss issues related to the safety and security of commercial nuclear facilities and current regulatory activities. This year's program features Chairman Macfarlane as keynote speaker.

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

Five of the sessions at this year's RIC are related to the Fukushima Dai-ichi nuclear accident and the NRC's effort to implement lessons learned. The remaining technical program addresses significant domestic and international issues associated with operating reactors, new and advanced reactors, fuel cycle facilities, nuclear security, safety research and safety culture policies.

For additional information, please contact the NRC's Office of Public Affairs at (301) 415-8200 or at opa.resource@nrc.gov.

NRC Provides Updates re Waste Confidence GEIS and Rule

The U.S. Nuclear Regulatory Commission's Waste Confidence Directorate recently released a meeting summary and transcript of its January 16 meeting and announced the schedule for its Monthly Public Teleconference Status Meeting.

January 2013 Meeting Summary and Transcripts

The Waste Confidence Directorate has documented its last public meetings via the Access Documents and Management System (ADAMS) on the agency's web site as follows:

- January 16 teleconference status meeting summary (ADAMS Accession No. ML13032A100)
- January 16 teleconference status meeting transcript (ADAMS Accession No. ML13029A238)

In addition, the documents may also be accessed on the Waste Confidence website at http://www.nrc.gov/waste/spent-fuel-storage/wcd/pub-involve.html#arch.

February 2013 Meeting

The Waste Confidence Directorate hosted a Monthly Public Teleconference Status Meeting on the February 20 from 1:30 p.m. – 2:30 p.m. EST. During the meeting, NRC staff discussed the status of its development efforts related to the Waste Confidence generic environmental impact statement and rule, and provided additional background information (e.g., documents to be released, public meeting schedules) as warranted.

Interested parties were invited to participate and ask questions; however, *discussion in this forum will not be considered as formal comments and will not be considered in the EIS development.*

Future Activities and Dates

NRC is scheduled to issue a Scoping Summary Report in early March 2013, and the Waste Confidence draft EIS is scheduled to be published in late summer or early fall 2013. The publication of the draft EIS is another important opportunity for public participation. The NRC will be conducting regional and webcast public meetings to discuss the conclusions in the draft EIS, and will be asking for public comments on the draft EIS.

NRC staff will periodically send out information and updates on the Waste Confidence EIS and rulemaking via the NRC's WCOutreach@nrc.gov distribution list. This information will include notification of the issuance of the Scoping Summary Report and the draft EIS, as well as information on upcoming teleconferences and meetings and how to comment on the draft EIS.

Prior Public Outreach

Scoping Meetings On November 14, 2012, NRC's Waste Confidence Directorate held two public meetings to discuss the scope of the agency's review of the environmental impacts of extended interim storage of spent nuclear fuel—including impacts associated with never building a permanent spent fuel repository and risks from spent fuel pool leaks and fires. (See *LLW Notes*, November/December 2012, pp. 42-46.) In addition to the public meetings, the NRC staff conducted webinars on December 5 from 1:00 – 4:00 p.m. and December 6 from 9:00 p.m. to midnight to explain the staff's progress in developing the scope of the EIS and to accept public comments.

***Federal Register* Notice** In late October 2012, NRC published a *Federal Register* notice (77 *Federal Register* 65137) announcing a scoping period and providing additional details about the upcoming public meetings and webinars plans to develop an EIS to support the rulemaking to update the Commission's Waste Confidence

Decision and Rule. (See *LLW Notes*, November/ December 2012, pp. 42-46.) Public comments on the scope of the Waste Confidence environmental review were accepted through January 2, 2013.

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.

To receive periodic e-mail communications regarding the Waste Confidence rulemaking, please email 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.

License Renewals Continue to Move Forward

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

- On January 17, 2013, NRC staff presented preliminary results of an inspection conducted as part of the agency's review of the Callaway nuclear power plant's license renewal application. The Callaway plant is located near Fulton, Missouri. It is owned and operated by Union Electric Company. As part of the renewal process, an NRC team inspected the plant's aging management programs as they are applied to systems, structures and components within the scope of license renewal. The team also assessed the processes used to determine what systems, structures and components are required to be monitored for aging effects. The current operating license for the Callaway plant expires on October 18, 2024. In December of 2011, Union Electric Co. submitted an application to extend the plant's license by 20 years. The inspection of the plant's aging management programs is one of a number of NRC activities involved in evaluating a license renewal application. The NRC still must determine whether further inspections are needed as part of its review of the application. *Additional information concerning license renewal and the Callaway application in particular can be found at http://www.nrc.gov/reactors/operating/licensing/renewal.html.*
- On January 31, 2013, NRC staff presented preliminary results of an inspection conducted as part of the agency's review of the Grand Gulf nuclear power plant's license renewal application. The plant—which is located near Port Gibson, Mississippi—is operated by Entergy Operations. During the meeting, NRC Region IV staff from Arlington, Texas described the results of the inspection and were available to answer questions from the public. The NRC team inspected the plant's aging management programs as they are applied to systems, structures and components within the scope of license renewal. The team also assessed the processes used to determine what systems, structures and components are required to be monitored for aging effects. Under NRC regulations, the original operating license for a commercial nuclear power plant has a term of 40 years. The license can be renewed for up to an additional 20 years if NRC requirements are met. The current operating license for the Grand Gulf plant expires on November 1, 2024. On Nov. 1, 2011, Entergy Operations submitted an application to extend the plant's license by 20 years. The inspection of the plant's aging management programs is one of a number of NRC activities involved in evaluating a license renewal application. The NRC still

must determine whether further inspections are needed as part of its review of the application. *Additional information concerning license renewal and the Grand Gulf application in particular can be found at http://www.nrc.gov/reactors/operating/licensing/renewal.html.*

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.

FEIS Issued for Proposed Fermi 3 Reactor

In early February 2013, the U.S. Nuclear Regulatory Commission announced that the agency has concluded there are no environmental impacts to preclude issuing a Combined License (COL) to build and operate the proposed Fermi Unit 3 near Newport, Michigan.

Development and Issuance of FEIS

The NRC developed the Fermi project's Final Environmental Impact Statement (FEIS) jointly with the U.S. Army Corps of Engineers, Detroit District. The Corps will use the document's information in considering its federal permit decision in accordance with the Clean Water Act and Rivers and Harbors Act of 1899.

Issuing the statement is an important milestone in the overall Fermi 3 COL review, which continues. The staff continues working on a final safety evaluation report, which will include a review by the NRC's Advisory Committee on Reactor Safeguards, an independent group of nuclear safety experts. The NRC's Atomic Safety and Licensing Board, a group of independent administrative law judges, is currently considering legal challenges to the Fermi application. The NRC's five Commissioners will conduct a separate mandatory hearing regarding the application and the staff's review, when completed.

Commission Order re New Reactor License Decisions

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

Background

On September 18, 2008, Detroit Edison submitted a COL application seeking permission to construct and operate an Economic Simplified Boiling Water Reactor at the Fermi site, adjacent to the company's existing reactor approximately 25 miles northeast of Toledo, Ohio. General Electric-Hitachi Nuclear Energy submitted an application to certify its 1,600-megawatt electric design, on August 24, 2005. More information on the design's ongoing certification review is available on the NRC website at www.nrc.gov.

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

The FEIS is available on the NRC website at www.nrc.gov. The four-volume FEIS is also available via the NRC's electronic document database, ADAMS, by entering accession numbers ML12307A172, ML12307A176, ML12307A177, and ML12347A202 in the ADAMS search engine.

Nader Mamish Named Director of NRC's Office of International Programs

By press release dated February 6, 2013, the U.S. Nuclear Regulatory Commission announced that Nader Mamish has been named Director of the agency's Office of International Programs by Chairman Allison Macfarlane, in consultation with the Commission. Mamish will succeed Margaret Doane, who was named NRC General Counsel in October 2012.

Most recently, Mamish was Assistant for Operations in the Office of the Executive Director for Operations (EDO). In that position, he helped the EDO, NRC's chief operating officer, in planning, management, control and coordination of the agency's operational and administrative activities. He supervised the EDO's staff and assisted in improving performance across the agency.

Mamish began his career with the NRC in 1992 as a radiation specialist in the former Region V office. In 1993, he transferred to headquarters to work as a senior enforcement specialist in the Office of Enforcement. Mamish subsequently held leadership positions in the Office of Nuclear Materials Safety and Safeguards and the Office of Nuclear Security and Incident Response. Mamish was chosen for his most recent position in the EDO's office in 2009.

"Nader brings a strong executive and safety-focused background to his leadership of this important NRC office," NRC Chairman Macfarlane said. "He has extensive knowledge of how the agency operates, both at the regional and headquarters level. His experience working on operational, radiation safety, materials and emergency preparedness matters will prove valuable as our agency continues to promote nuclear safety and security within the international community, as well as the importance we place on the oversight of an independent regulator."

Prior to joining the NRC, Mamish held several positions with Yankee Atomic Electric Co. and Florida Power and Light Co. Mamish received a Bachelor of Arts degree in Radiological Health Physics and a Master's degree in Radiological Sciences from the University of Massachusetts.

The Office of International Programs supports U.S. interests abroad in the safe and secure use of nuclear materials and in guarding against the spread of nuclear weapons. It also licenses the export and import of nuclear materials and equipment.

NRC Issues FY 2012 Performance and Accountability Report

In late 2012, the U.S. Nuclear Regulatory Commission issued its Performance and Accountability Report for Fiscal Year 2012. The report—which describes the agency's program and financial performance from October 1, 2011 through September 30, 2012—reflects the agency's achievement of both its safety and

security strategic goals, and all its performance measures.

"I am proud of the NRC employees' performance in achieving the agency's safety and security goals," said Chairman Allison Macfarlane. "The agency is committed to good governance and prudent management of resources. We will continue to evaluate, test, and strengthen internal controls, including those related to financial reporting and financial management systems."

The report notes that the agency's nuclear reactor and materials licensees maintained their excellent safety record. The agency also improved its operational activities by continuing to invest in its skilled workforce of engineers and scientists through knowledge transfer programs, recruiting a diverse workforce, and providing training opportunities. In addition, the report points out the agency's sound financial position, having sufficient funds to meet programmatic needs and adequate control of these funds in place. The agency received an unqualified audit opinion on its financial statements by its auditors, with no instances of noncompliance with laws and regulations.

A copy of the full report can be found at http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1542/.

(Continued from page 21)

has more than three unplanned scrams during that period of time, the indicator transitions from "Green" to "White" and the plant is subjected to additional scrutiny from the NRC. At the end of 2012, the Nine Mile Point 1 rolling average for that indicator stood at 3.5. With respect to the FitzPatrick plant, a different performance indicator has changed. That indicator tracks the number of unplanned power changes per 7,000 hours of operation. If that total exceeds six during that period of time, the indicator will move from "Green" to "White" and the NRC will step up its level of oversight. For FitzPatrick, that rolling average was tallied at 6.5 at the end of the fourth quarter of 2012. "Performance indicators are designed to signal when there are trends at nuclear power plants in need of additional oversight by the NRC," stated NRC Region I Administrator Bill Dean. "We will follow our process and ensure that any of the underlying problems contributing to the Nine Mile Point 1 and FitzPatrick indicator changes receive the attention they deserve." The increased oversight that will result will include a supplemental inspection at each site to provide assurance that the companies that operate the plants understand the reasons for the indicator changes and that the issues have been appropriately evaluated and addressed. Both plants have shifted from the Licensee Response Column of the NRC's Action Matrix to the Regulatory Response Column. *The Action Matrix is available at http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/actionmatrix_summary.html.*

To Obtain Federal Government Information

by telephone

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

by internet

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

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

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

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

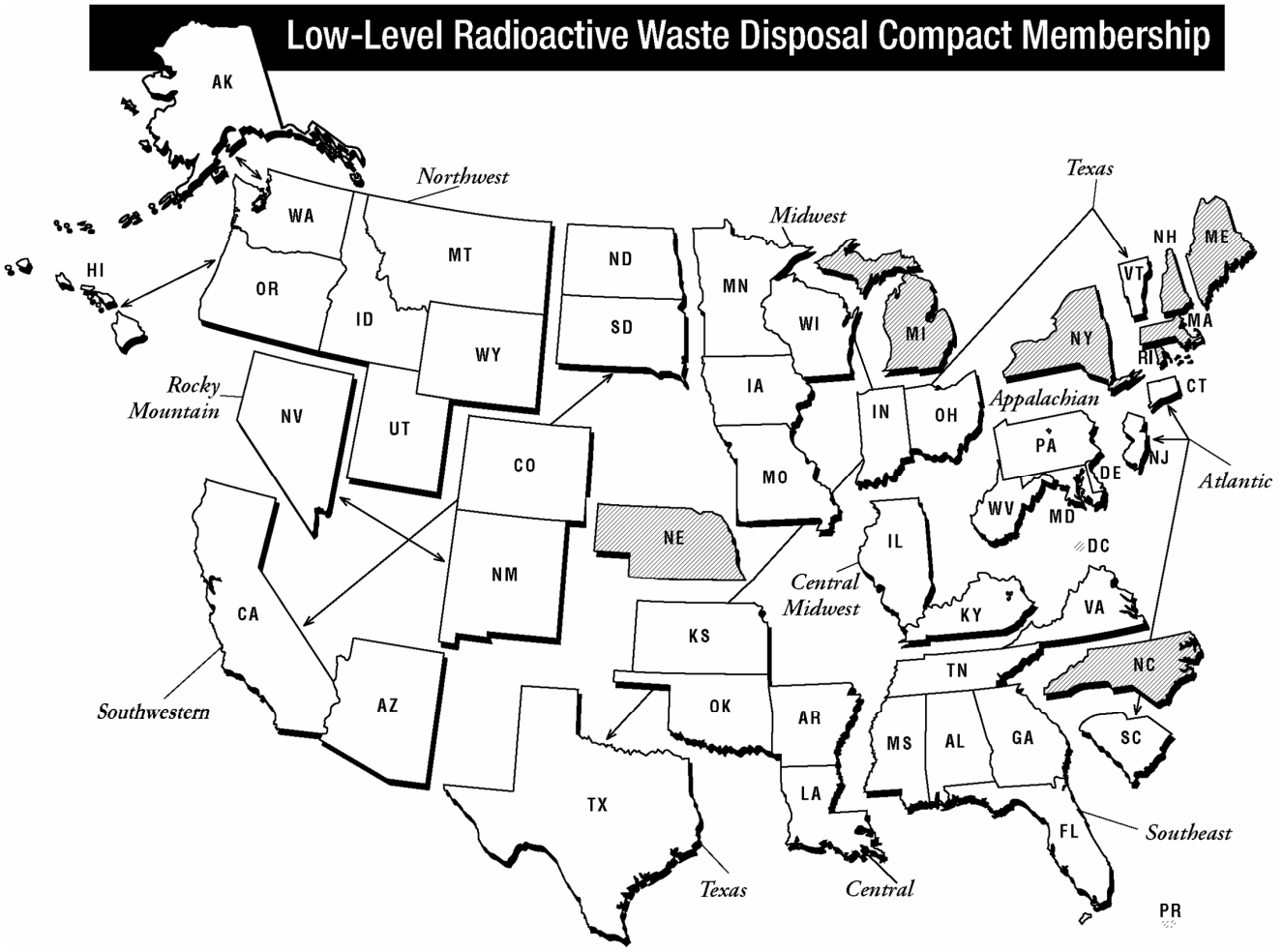
- GAO homepage (access to reports and testimony) .....**www.gao.gov**

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

Accessing LLW Forum, Inc. Documents on the Web

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

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



Appalachian Compact
Delaware
Maryland
Pennsylvania
West Virginia

Atlantic Compact
Connecticut
New Jersey
South Carolina

Central Compact
Arkansas
Kansas
Louisiana
Oklahoma

Central Midwest Compact
Illinois
Kentucky

Midwest Compact
Indiana
Iowa
Minnesota
Missouri
Ohio
Wisconsin

Northwest Compact
Alaska
Hawaii
Idaho
Montana
Oregon
Utah
Washington
Wyoming

Northwest accepts Rocky Mountain waste as agreed between compacts

Rocky Mountain Compact
Colorado
Nevada
New Mexico
South Dakota

Southeast Compact
Alabama
Florida
Georgia
Mississippi
Tennessee
Virginia

Southwestern Compact
Arizona
California
North Dakota

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