

Volume 34 Number 2 March/April 2019

Texas Compact/State of Texas

Waste Management Bills Introduced During Texas Legislative Session

On February 22, 2019, legislation was introduced in the Texas legislature relating to the operations of the Texas Low-Level Radioactive Waste Disposal Compact (Texas Compact) facility in Andrews County, Texas. State Representative Brooks Landgraf (R) and Senator Kel Seliger (R), both of whom represent Andrews County, sponsored the proposed bills.

The identical pieces of legislation are House Bill No. 2269 and Senate Bill No. 1021. Amongst other things, the bills seek to lower certain charges and reserve disposal capacity for Texas and Vermont at the facility that is operated by Waste Control Specialists (WCS).

Although WCS negotiates specific disposal prices with its customers, under current statute, the rate established by the state must be the highest level that compact member states Texas and Vermont pay, but the minimum charged to all other noncompact member states.

The following are highlights of HB 2269 and SB 1021, as proposed. Stakeholders interested in additional detail are directed to the proposed legislation.

Reserved Capacity for Party State Waste

As proposed, the bills would reserve for the exclusive use of party state compact waste disposal, the greater of

- three million cubic feet and the required volume identified by the Texas Compact Commission; and,
- two million curies and the required curie capacity identified by the Texas Compact Commission.

Of this reserved volume and capacity, 80% would be for compact waste generated in Texas and 20% (Continued on page 10)

In This Issue

Entergy and Holtec International Agree to Post-Shutdown Sale of Indian Point Energy Center—page 16

News Briefs for Nuclear Power Plants Across the Country-page 20

Senate Confirms Andrew Wheeler as EPA Administrator—page 24

NRC Terminates Rulemaking re Special Nuclear Material Accounting-page 25

Low-Level Radioactive Waste Forum, Inc.

COPYRIGHT POLICY

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

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

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

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

- 1. LLW Forum, Inc., publications will include a statement that the material is copyrighted and may not be used without advance permission in writing from the LLW Forum.
- 2. When LLW Forum material is used with permission it must carry an attribution that says that the quoted material is from an LLW Forum publication referenced by name and date or issue number.
- 3. Persons may briefly summarize information reported in LLW Forum publications with general attribution (e.g., the LLW Forum reports that . . .) for distribution to other members of their organization or the public.
- 4. Persons may use brief quotations (e.g., 50 words or less) from LLW Forum publications with complete attribution (e.g., *LLW Forum Notes*, May/June 2002, p. 3) for distribution to other members of their organization or the public.
- 5. Members and subscribers may with written approval from the LLW Forum's officers reproduce LLW Forum materials one time per year with complete attribution without incurring a fee.
- 6. If persons wish to reproduce LLW Forum materials, a fee will be assessed commensurate with the volume of material being reproduced and the number of recipients. The fee will be negotiated between the LLW Forum's Executive Director and the member and approved by the LLW Forum's officers.

Low-Level Radioactive Waste Forum, Inc.

LLW Notes Volume 34, Number 2 March/April 2019 Editor and Writer: Todd D. Lovinger Layout and Design: Rita Houskie, Central Interstate Low-Level Radioactive Waste Compact

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

The *LLW Notes* is owned by the LLW Forum, Inc. and therefore may not be distributed or reproduced without the express written approval of the organization's Board of Directors.

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.

LLW FORUM, INC.

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

Table of Contents

States and Compacts (Cover Story) Waste Management Bills Introduced During Texas Legislative Session	
Low-Level Radioactive Waste Forum, Inc DOE Assistant Secretary Anne White Gives Plenary Presentation at Spring 2019 LLW Forum Meeting LLW Forum Hosts Hot Topics Panel at Waste Management Conference	4
States and Compacts (continued) Central Midwest Interstate Compact Commission Holds April 2019 Meeting	
Utah Waste Management and Radiation Control Board Meets Virtual Public Meeting/Webinar on San Onofre Fuel Loading Texas Proposed Bill re Regulation of Radioactive Waste	8 9 12
Entergy and Holtec International Agree to Post-Shutdown Sale of Indian Point Energy Center NRC Renews Seabrook Station Operating License	. 16 . 19
Industry News Briefs for Nuclear Power Plants Across the Country	. 20 .20
Congress NRC Proposes FY 2020 Budget to Congress	. 23 .23
Federal Agencies and Committees Senate Confirms Andrew Wheeler as EPA Administrator NRC Terminates Rulemaking re Special Nuclear Material Accounting . John Lubinski Named NMSS Director at NRC Community Engagement Panels re Decommissioning Power Plants NRC Issues Information Notices and Regulatory Issue Summaries NRC Issues Annual Assessments for Nation's Nuclear Plants	24 25 26 27 28
Obtaining Publications	. 30

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.

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

DOE Assistant Secretary Anne White Gives Plenary Presentation at Spring 2019 LLW Forum Meeting

Anne White, Assistant Secretary for Environmental Management at the U.S. Department of Energy (DOE), gave the plenary presentation for the spring 2019 Low-Level Radioactive Waste Forum (LLW Forum) meeting on the morning of Wednesday – April 17, 2019.

The meeting was held at the Old Town Hotel in Alexandria, Virginia on April 17-18, 2019. It was a one and one-half day meeting beginning at 9:00 a.m. on Wednesday and concluding at noon on Thursday. The Executive Committee met from 7:30 – 8:30 a.m. on Wednesday morning (April 17). The Disused Sources Working Group (DSWG) met on Thursday afternoon and Friday morning (April 18-19).

The meeting documents — including the final meeting agenda — have been posted to the LLW Forum Meeting page of the organization's web site at http://llwforum.org/llw-forum-meeting/.

Program

The following topics and speakers were on the program of the spring 2019 LLW Forum meeting:

- Radiation Source Protection and Security
 Task Force Report Margaret Cervera, NRC
- Reactor Decommissioning Rule Bruce Watson, NRC
- National Terrorism Advisory System Duane White, NRC

- interpretation of the statutory term "high-level radioactive waste" and impacts thereof – Theresa Kliczewski, DOE
- depleted uranium inventory program including volumes, safe management, storage locations and conversion/de-conversion program – Jaffet Ferrer-Torres, DOE
- panel re issues and differences regarding waste classifications systems in the United States and internationally – Larry Camper, consultant (discussion leader); Tom Peake, EPA; Boby Abu-Eid, NRC; Douglas Tonkay, DOE; Tom Magette, Talisman; and, Debra Shults, Tennesee
- Nuclear Energy Institute (NEI) presentation on current market trends, Hill activities, operating plant status, new reactors fuel work or anything of a broad industry nature – Baker Elmore, NEI
- federal licensee's experience in moving an irradiators – Catherine Ribaudo, National Institute of Health (NIH)
- updates and activities re the Clive low-level radioactive waste disposal facility in Tooele County, Utah including Utah regulatory program and the Energy*Solutions*' Clive facility including depleted uranium performance assessment; consideration of allowing further disposal of Class A sealed sources; request for exemption from mass and concentration limits; modifications to Part B permit; requests to modify certain contingency plans; license and permit updates; and,

Low-Level Radioactive Waste Forum, Inc. continued

legislative updates – Don Verbica, Utah, and Vern Rogers, Energy*Solutions*

Attendance

Officials from states, compacts, federal agencies, nuclear utilities, disposal operators, brokers/ processors, industry and other interested parties attended the spring 2019 LLW Forum meeting.

LLW Forum meetings are an excellent opportunity to stay up-to-date on the most recent and significant developments in the area of lowlevel radioactive waste management and disposal. They also offer 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.

LLW Forum Meeting Location and Dates

The spring 2019 LLW Forum meeting was held on Wednesday, April 17 (9:00 a.m. – 5:30 p.m.) and Thursday, April 18 (9:00 a.m. – noon) at:

> Hilton Old Town Hotel 1767 King Street Alexandria, Virginia

Located in the historic, vibrant King Street neighborhood, the Hilton Old Town Hotel is one of the most convenient hotels in Alexandria, Virginia for business and leisure travelers visiting the Washington, DC metropolitan area. The hotel is just steps away from the King Street metro station and close to Reagan National Airport. Downtown DC attractions and government buildings are minutes away by metro.

If you have questions or require additional information, please contact Todd D. Lovinger, Esq. — Executive Director of the LLW Forum and Project Director of the Disused Sources and Part 61 Working Groups (DSWG/P61WG) — at (754) 779-7551 or at LLWForumInc@aol.com.

LLW Forum Hosts Hot Topics Panel at Waste Management Conference

The Low-Level Radioactive Waste Forum (LLW Forum) hosted a panel at the 2019 Waste Management (WM) conference titled, *Hot Topics and Emerging Issues in U.S. Commercial Low-Level Radioactive Waste Management and Disposal.*

The WM conference was held at the Convention Center in Phoenix, Arizona from March 3-7, 2019. The LLW Forum-organized Panel 016 was held on Monday (March 4, 2019) from 1:50 – 3:10 p.m. in Room 102BC.

Additional information about the Waste Management conference is available at www.wmsym.org.

Overview

The 2019 WM conference theme was "Encouraging Young Men & Women to Achieve Their Goals in Radwaste Management." The conference focus was promoting the next generation of radwaste management professionals so that young professionals are strongly encouraged to get involved. The 2019 WM conference included several special programs to encourage and support their participation.

LLW Forum-Organized Panel

The LLW Forum typically organizes a panel for the WM conference titled, *Hot Topics and Emerging Issues in U.S. Commercial Low-Level Radioactive Waste Management.* The LLW Forum-organized panel focuses on emerging issues in U.S. commercial low-level radioactive waste management from the perspective of active members of the LLW Forum. During the panel, state, compact, federal and industry officials share

Low-Level Radioactive Waste Forum, Inc. continued

their views on a variety of timely and significant topics related to low-level radioactive waste management, disposal and related issues.

The LLW Forum-organized Panel 016 was held on Monday (March 4, 2019) from 1:50 - 3:10p.m. in Room 102BC. The panel included the following speakers and topics:

 John Tappert Director
 Division of Decommissioning, Uranium Recovery and Waste Programs
 Office of Nuclear Material Safety and Safeguards
 U.S. Nuclear Regulatory Commission

topic description: updates regarding current and planned agency activities, initiatives and rulemakings such as including the 10 CFR Part 61 rulemaking including the October 2018 SRM that directs agency staff to decouple the Greater-than-Class C (GTCC) draft regulatory basis; the Very Low-Level Waste (VLLW) scoping study; the alternative disposal request guidance revision; the uniform manifest guidance revision; the Greater-than-Class C waste regulatory basis; and, the issuance of new regulations on the decommissioning of nuclear power plants

 Eddie Selig General Manager Advocates for Responsible Disposal in Texas

topic description: provide an overview of recent, ongoing and planned activities in the State of Texas related to low-level radioactive waste management and disposal including ARDT's efforts to support waste management and disposal activities in Texas; a brief overview Waste Control Specialists (WCS) operations since the change in ownership and management and the company's stated future vision; the Texas Commission on Environmental Quality (TCEQ) requested reduction in rates and the anticipated impact

6 LLW Notes March/April 2019

on waste volumes; and, the recently released Joint Compact Facility Legislative Oversight Committee report

Joe Weismann
 Vice-President of Radiological Programs
 US Ecology, Inc.

topic description: provide an overview of ongoing and planned company activities, as well as perspectives on select hot topic issues in the field of low-level radioactive waste management and disposal

 Temeka Taplin Physical Scientist Office of Radiological Security National Nuclear Security Administration

topic description: discuss how the lack of disposal access for foreign origin americium affects security; the cesium irradiator replacement program; and, recently issued supplemental guidance on disused source management via the Code of Conduct of the International Atomic Energy Agency (IAEA)

Background

The annual WM conference, presented by WM Symposia (WMS), is an international symposium concerning the safe and secure management of radioactive wastes arising from nuclear operations, facility decommissioning and environmental remediation, as well as storage, transportation and disposal and associated activities. WMS was founded to provide a forum for discussing and seeking cost-effective and environmentally responsible solutions for the safe management and disposition of radioactive waste and radioactive materials.

The WM 2019 conference marked the 45th annual Waste Management Symposium. The conference provided an opportunity for stakeholders to connect with the worldwide nuclear community in a forum for discussing and seeking safe and cost-

effective solutions to managing and dispositioning radioactive waste and decommissioning nuclear facilities. The WM 2019 conference featured more than 500 papers and over 40 panel discussions in 130 plus technical sessions complemented by the industry's largest annual exhibition of nearly 200 companies.

Supporting Organizations

Supporting organizations included the American Nuclear Society (ANS), the International Atomic Energy Agency (IAEA), the International Framework for Nuclear Energy Cooperation (IFNEC) and the Organization for Economic Cooperation and Development/Nuclear Energy Agency (OECD/NEA).

The conference was organized in cooperation with the U.S. Department of Energy (DOE), the U.S. Nuclear Regulatory Commission (NRC), the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Defense (DoD).

For additional information on the Waste Management Conference, please call (480) 557-0263 or email to shelley@wmarizona.org.

Central Midwest Compact

Central Midwest Interstate Compact Commission Holds April 2019 Meeting

On April 9, 2019, the Central Midwest Interstate Low-Level Radioactive Waste Management Compact Commission (Central Midwest Compact Commission) held a regularly scheduled meeting.

The meeting began at 10:00 a.m. CDT (Illinois)/11:00 a.m. EDT (Kentucky). It was held

at the Illinois Emergency Management Agency (IEMA) and the Kentucky Radiation Health Branch.

The formal meeting agenda is available on the Central Midwest Compact Commission's web site at www.cmcompact.org.

Agenda

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

- call to order;
- adoption or modification of the agenda;
- adoption of minutes from meeting on September 18, 2018;
- executive session;
- Exelon update Miguel Azar;
- first public comment period;
- reports:
 - Chair and host state report, including Low-Level Radioactive Waste Forum (LLW Forum) update;
 - Kentucky report;
 - Executive Assistant report;
- other business;
 - unfinished business;
 - new business, including Texas Compact and the viability of the compact system;
- second public comment period;

- next scheduled meeting or announcement of special meeting;
- adjournment.

Background

The Central Midwest Compact includes the states of Kentucky and Illinois. The Central Midwest Compact Commission is the body appointed to oversee and implement the Compact. Currently, there are three members on the Central Midwest Compact Commission. Two Commissioners are from Illinois and one Commissioner is from Kentucky.

The Central Midwest Compact Commission has numerous responsibilities identified in the Compact Act. The key responsibilities include:

- preparation of a Regional Management Plan;
- identification of the need for regional lowlevel radioactive waste facilities; and,
- designation of a host state for regional lowlevel radioactive waste facilities.

In 1987, the Central Midwest Commission determined that there was a need for a regional low-level radioactive waste disposal facility and designated Illinois as the host state. The Central Midwest Commission adopted its first Regional Management Plan in 1988.

For additional information, please contact Central Midwest Compact Commission Chair Joe Klinger at (217) 836-3018 or at cmidwestcompact@yahoo.com.

Northwest Compact/State of Utah

Utah Waste Management and Radiation Control Board Meets

On April 11, 2019, the Utah Waste Management and Radiation Control Board held a meeting beginning at 1:30 p.m. MT in Salt Lake City, Utah.

The meeting, which was open to the public, was held in Conference Room 1015, Department of Environmental Quality (DEQ) Board Room, in the Multi Agency State Office Building that is located at 195 North 1950 West in Salt Lake City, Utah.

Agenda

The following items, among others, were on the agenda for the April 11, 2019 Board meeting:

- I. Call to Order
- II. Public Comments on Agenda Items
- III. Declarations of Conflict of Interest
- IV. Approval of Meeting Minutes for the February 14, 2019 Board Meeting (*Board Action Item*)
- V. Underground Storage Tanks Update
- VI. Administrative Rules
 - A. Approval of final adoption of proposed rule changes to Used Oil Rules R315-15-14 to revise the reimbursement rate for DIYer used oil collection centers (*Board Action Item*)

- B. Approval of final adoption of proposed rule changes to X-Ray Rules R313-28 to allow the use of whole body x-ray units for security purposes (*Board Action Item*)
- C. Approval of final adoption of proposed rule changes to R315-260, R315-261 and R315-262 for recalled Takata airbag inflators (*Board Action Item*)
- VII. Hazardous Waste Section
 - A. Proposed stipulation and consent order between the Board and Clean Harbors, Aragonite (*Information Item Only*)
- VIII. Low-Level Radioactive Waste Section
 - B. Energy*Solutions*' request for a sitespecific treatment variance from the Hazardous Waste Management rules – Energy*Solutions* seeks authorization to treat waste containing High-Subcategory Mercury for stabilization (*Board Action Item*)
- IX. Directors Report
- X. Election of Board and Vice Chair (*Board Action Item*)
- XI. Other Business
 - A. Miscellaneous Information Items
 - B. Scheduling of Next Board Meeting
- XII. Adjourn

Background

The Board—which is appointed by the Utah Governor with the consent of the Utah Senateguides 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 Waste Management and Radiation Control Board meeting agendas and packet information can be found at http:// www.deq.utah.gov/boards/utah-wastemanagement-radiation-control-boardmeetings.htm.

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

Southwestern Compact/State of California

Virtual Public Meeting/Webinar on San Onofre Fuel Loading

On March 25, 2019, the U.S. Nuclear Regulatory Commission (NRC) conducted a virtual public meeting/webinar to discuss enforcement decisions and recent inspection activities at the San Onofre Nuclear Generating Station. The San Clemente, California plant is owned by Southern California Edison and permanently shut down in 2013.

The webinar began with a presentation by NRC staff on the agency's final enforcement decision regarding findings of a special inspection conducted at the plant following a fuel-loading incident on August 3, 2018, which was documented in an NRC inspection report. NRC staff also discussed preliminary findings and

LLW Notes March/April 2019 9

observations of recent inspections to independently verify the adequacy of corrective actions at the plant.

Members of the public were given an opportunity to submit written comments and questions via the webinar user interface. NRC staff provided participation guidance during the webinar from 2:00 - 5:00 p.m. Central Daylight Time (12:00 - 3:00 p.m. Pacific Daylight Time).

For additional information, please contact Victor Dricks at (817) 200-1128.

(Continued from page 1)

would be for compact waste generated in non-host compact states.

Correction for Decay

The proposed bills state that the Texas Compact Commission "shall correct for radioactive decay in determining licensed disposal curie capacity ..."

Limitation on Non-Compact Party Waste

As proposed, the bills state that WCS may accept non-compact party waste only if the Texas Compact Commission authorizes the waste and the facility has not less than three years worth of constructed capacity based on the average amount of party state compact waste disposed in the preceding five years excluding:

- low-level radioactive waste from decommissioned nuclear electric generation facilities;
- oversized low-level radioactive waste components; or
- low-level radioactive waste from nonrecurring events.

If there is not sufficient constructed waste disposal capacity, the facility license holder can only accept non-party compact waste if it:

- adds sufficient constructed capacity;
- files a performance bond, approved by the Texas Compact Commission, conditioned on the construction of additional sufficient constructed capacity; or,
- takes an alternative action approved by a majority of the nuclear electric generation utilities operating in the party states.

The proposed bills further state that if a party state notifies the Texas Compact Commission that a nuclear electric generation facility will be decommissioned, and the time-phased decommissioning schedule and Post Shut-Down Decommissioning Activities Report (PSDAR) is to be disposed of at the compact facility, the facility license holder must have constructed adequate disposal capacity at the time of disposal of the decommissioning waste.

Finally, language in the proposed bills would require the license holder to obtain an amendment to the facility-operating license to increase the allowable curie capacity by two million curies when the disposal facility has reached 80% of the total curies for which the facility is licensed.

Waste Disposal Fee Comparison

As proposed, HB 2269 and SB 1021 would require the facility license holder to conduct an annual comparison of party state and non-party state waste disposal fees. The proposed legislation further states that the comparison must include:

- the total invoiced compact waste disposal fees;
- the total volume of compact waste disposed; and,
- 10 LLW Notes March/April 2019

 an average disposal fee calculated by dividing the total invoiced compact waste disposal fees by the total volume of compact waste disposed.

The comparison may not include information regarding disposal fees or disposal volume for:

- low-level radioactive waste from decommissioned nuclear electric generation facilities;
- over-sized low-level radioactive waste components; or,
- low-level radioactive waste from nonrecurring events.

If the average compact waste disposal fee charged to party state generators exceeds the average compact waste disposal fee charged to non-party state generators, the proposed legislation requires that the facility license holder "must issue a rebate for the preceding year's fees to the party state generators in an amount sufficient to reduce the average compact waste disposal fee charged to party state generators after the rebate to \$1 less than the average compact waste disposal fee charged to non-party state generators." The proposed bills would further require the facility license holder to allocate the rebates according to the fractional amount of the total compact waste disposal fees paid by each generator during the preceding year.

HB 2269 and SB 1021 further state that, upon written request from a nuclear electric generation utility operating in a party state, the facility license holder shall:

 retain an independent auditor, who must be approved by both the facility license holder and the utility making the request, to evaluate the computation of the average compact waste disposal fee and rebate; and, • make a copy of the report available to the requesting utility within 90 days of receipt thereof.

Fees and Surcharges

As proposed, HB 2269 and SB 1021 would make the following changes regarding waste disposal fees and surcharges:

- reduce the quarterly gross receipts payments to be remitted by the facility license holder to the state from ten percent to five percent; and,
- reduce the disposal surcharge on generators of out-of-compact waste from 16.25 percent to 11.25 percent.

Background

On December 1, 2018, the Joint Compact Facility Legislative Oversight Committee (Joint Committee) submitted its report on the Texas Compact facility to the Senate Committee on Natural Resources and Economic Development and the House Committee on Environmental Regulation. (See *LLW Notes*, November/ December 2018, pp. 1, 12-19.)

The Joint Committee was established pursuant to House Bill (HB) 2662, which was passed by the 85th Legislature during the regular session. The Joint Committee heard invited and public testimony during a scheduled hearing on September 6, 2018.

Pursuant to HB 2662, the Joint Committee's charge was as follows:

Assessment of the Texas Low-Level Radioactive Waste Disposal Compact facility to include recommendations relating to costs, fees, and any other matters the legislative oversight committee determines are relevant to the compact facility and oversight of the compact facility. Report must include the results of the assessment.

Amongst other things, the legislative oversight report found:

- since opening in 2012, WCS has operated at a loss that is currently over \$10 million per year;
- the default surcharge levels of 36.25% and 16.25% are excessive, especially in light of WCS's competitor's surcharges, so a reduction in fees may be reasonable;
- a balance is needed to ensure there is capacity for in-compact generators while also allowing WCS to accept imported waste to finance the operation and expansion of the facility;
- no existing state agency or office has the requisite expertise or ability to maintain and operate a disposal facility; and,
- the Texas Compact Commission had yet to develop a comprehensive contingency plan as per its sole responsibility pursuant to the Texas Compact agreement.

In October 2018, the Texas Commission on Environmental Quality (TCEQ) reduced a set of disposal fees at the WCS compact waste disposal facility.

For additional information, please contact Texas Compact Commission Executive Director Leigh Ing at (512) 305-8941 or at leigh.ing@tllrwdcc.org or WCS President and COO David Carlson at (865) 201-3191 or at dcarlson@wcstexas.com.

Texas Proposed Bill re Regulation of Radioactive Waste

On March 6, 2019, legislation was introduced in the state legislature that would make changes to Section 401.052(b), (d) and (e) of the Texas Health and Safety Code relating to the regulation of radioactive waste in Texas. State Representative Jose Rodriguez (D) sponsored the proposed bill.

Amongst other things, Senate Bill No. 1753 seeks to:

- addresses emergency planning and fees related to the transportation of radioactive waste;
- impose new requirements related to contingency planning;
- impose new requirements for the implementation of biannual, independent inspections of a radioactive waste site; and,
- require adjustments to the amount of financial security to account for information received from the state auditor before a license may be issued or renewed.

The proposed legislation, as introduced, states that it would take effect on September 1, 2019.

The following are highlights of SB 1753, as proposed. Stakeholders interested in additional detail are directed to the proposed legislation.

Emergency Planning and Transportation Fees

As proposed, the bill removes references to "lowlevel" in regard to transportation and related fee requirements, instead imposing them upon "radioactive waste" in general.

The proposed legislation would add a requirement that each shipper and carrier of radioactive waste must provide notice of shipping to the department and the local emergency planning committee for each county through which the waste will travel.

SB 1753 would expand the fee on shippers to include shipments to a Texas radioactive waste storage facility, in addition to the current legislatively imposed fee on shipments to a Texas radioactive waste disposal facility.

The proposed legislation removes the current legislative language that the fee may "not exceed \$10 per cubic foot of shipped low-level radioactive waste," instead replacing it with new language that the fee may "be assessed in an amount determined by the [Texas Commission on Environmental Quality (the Commission)] as adequate to remediate a potential radiation release and related damages."

SB 1753, as proposed, would also remove the current legislative prohibition against collecting transportation fees on waste disposed of at the federal waste disposal facility.

Contingency Planning

As proposed, SB 1753 would add the following new language relating to contingency planning:

After opportunity for public hearing and comment, the [C]ommission shall develop and adopt by rule a set of conditions that would trigger the enactment of a contingency plan. The contingency plan must include rules and procedures for addressing:

(1) the financial impairment or failure of the holder of a license issued under this chapter;

(2) the abandonment of a site or operation government by this chapter;

(3) the failure to maintain the security or radiation-free status of a site licensed under this chapter;

(4) an uncontrolled or inadequately controlled radiation release; and,

(5) threats to public health and safety arising from activity governed by this chapter.

Radioactive Waste Site Inspections

SB 1753, as proposed, would also add the following new language relating to radioactive waste site inspections:

The [C]ommission shall develop standards for and ensure the implementation of biannual, independent inspections of a radioactive waste site. The [C]ommission shall contract for the inspections, the cost of which shall be paid by the license holder of the inspected facility. The [C]ommission shall choose a new third-party inspector at least every six years. The inspection shall:

(1) verify waste volumes and curies in the facility;

(2) monitor safety;

(3) check for radiation releases on and off site; and,

(4) conduct financial audits to determine the adequacy of financial assurance held by the facility.

License Issuance or Renewal

In addition, the proposed legislation would add new language requiring the Commission to "adjust the amount of financial security to account

for information received from the state auditor" before a license may be issued or renewed.

Background

On December 1, 2018, the Joint Compact Facility Legislative Oversight Committee (Joint Committee) submitted its report on the Texas Low-Level Radioactive Waste Disposal Compact (Texas Compact) facility to the Senate Committee on Natural Resources and Economic Development and the House Committee on Environmental Regulation. (See *LLW Notes*, November/December 2018, pp. 1, 12-19.)

The Joint Committee was established pursuant to House Bill (HB) 2662, which was passed by the 85th Legislature during the regular session. The Joint Committee heard invited and public testimony during a scheduled hearing on September 6, 2018.

Pursuant to HB 2662, the Joint Committee's charge was as follows:

Assessment of the Texas Low-Level Radioactive Waste Disposal Compact facility to include recommendations relating to costs, fees, and any other matters the legislative oversight committee determines are relevant to the compact facility and oversight of the compact facility. Report must include the results of the assessment.

Amongst other things, the legislative oversight report found:

- since opening in 2012, Waste Control Specialists (WCS) has operated at a loss that is currently over \$10 million per year;
- the default surcharge levels of 36.25% and 16.25% are excessive, especially in light of WCS's competitor's surcharges, so a reduction in fees may be reasonable;

- a balance is needed to ensure there is capacity for in-compact generators while also allowing WCS to accept imported waste to finance the operation and expansion of the facility;
- no existing state agency or office has the requisite expertise or ability to maintain and operate a disposal facility; and,
- the Texas Compact Commission had yet to develop a comprehensive contingency plan as per its sole responsibility pursuant to the Texas Compact agreement.

In October 2018, the Commission reduced a set of disposal fees at the WCS compact waste disposal facility.

On February 22, 2019, identical pieces of legislation (H.B. 2269 and S.B.1021) were introduced in the Texas legislature relating to the operations of the Texas Compact facility in Andrews County, Texas. (See related story, this issue.)

Amongst other things, the identical bills seek to lower certain charges and reserve disposal capacity for Texas and Vermont at the facility that is operated by WCS. Although WCS negotiates specific disposal prices with its customers, under current statute, the rate established by the state must be the highest level that compact member states Texas and Vermont pay, but the minimum charged to all other non-compact member states.

For additional information, please contact Texas Compact Commission Executive Director Leigh Ing at (512) 305-8941 or at leigh.ing@tllrwdcc.org or WCS President and COO David Carlson at (865) 201-3191 or at dcarlson@wcstexas.com.

Texas Compact

Texas Compact Commission Holds February 2019 Meeting

Announces Change of Address

On February 28, 2019, the Texas Low-Level Radioactive Waste Disposal Compact Commission (Texas Compact Commission) held a regularly scheduled meeting in Andrews, Texas.

The meeting began at 9:30 a.m. EDT. It was held in the Glorietta Room at the Andrews Business and Technology Center, which is located at 201 NW Avenue D, Andrews, Texas 79714.

There was no live feed provided for the meeting; however, a video of the meeting is now available on the Texas Compact Commission website.

In addition, the Texas Compact Commission announced a change in their office address.

The formal meeting agenda and archived video is available on the Texas Compact Commission's web site at www.tllrwdcc.org.

Agenda

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

- call to order;
- roll call and determination of quorum;
- introduction of Commissioners, elected officials and press;
- moment of recognition for Jim Crowson;
- public comment;

- introduction of Southwestern Low-Level Radioactive Waste Disposal Compact Commission (Southwestern Compact Commission);
- discussion concerning matters of common interest between the Texas Compact Commission and the Southwestern Compact Commission including:
 - viability of low-level radioactive waste compact system;
 - access to disposal site for small quantity generators; and,
 - education of federal and state agencies, low-level radioactive waste generators and other organizations on matters relating to the Texas Compact Commission and the Southwestern Compact Commission, including current U.S. Nuclear Regulatory Commission (NRC) issues;
- discussion and possible action concerning methods to advance common interests between the Southwestern Compact Commission and the Texas Compact Commission including:
 - upcoming events, seminars, conferences where the Texas Compact Commission and the Southwestern Compact Commission representatives can present materials about low-level radioactive waste disposal;
 - designation of Texas Compact
 Commission liaison to communicate with
 Southwestern Compact Commission on
 matters of mutual interest and to develop a
 protocol for educating federal and state
 agencies, low-level radioactive waste
 generators and other organizations on

matters relating to the Texas Compact Commission and the Southwestern Compact Commission;

- consideration of and possible action on amendments relating to the importation or exportation of low-level radioactive waste from Alaron Veolia, NextEra Point Beach, Wolf Creek NOC and U.S. Army JMC;
- consideration of and possible action on applications for importation of low-level radioactive waste from U.S. Army JMC;
- receive reports from Waste Control Specialists LLC (WCS) about compact facility capacity, recent site operations and any other matter WCS wishes to bring to the attention of the Compact Commission;
- report from the Texas Compact Commission Rules Committees – Commissioner Morris, Chair;
- discussion and possible action on the hiring of an administrative assistant;
- receive report from Chair on Texas Compact Commission activities including reporting on fiscal matters to be taken by the compact and addressing personnel matters;
- report from Leigh Ing, Executive Director of the Texas Compact Commission, on her activities relating to Texas Compact Commission operations;
- discussion and possible changes of dates and locations of future Texas Compact Commission meetings in 2019 and 2020; and,
- adjourn.

New Office Address

The Texas Compact Commission has a new address, which is as follows:

Texas Low-Level Radioactive Waste Disposal Compact Commission 919 Congress Avenue Suite 830 Austin, TX 78701

All of the Texas Compact Commission phone numbers and email addresses remain the same.

Background

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

For additional information, please contact Texas Compact Commission Executive Director Leigh Ing at (512) 305-8941 or at leigh.ing@tllrwdcc.org.

State of New York

Entergy and Holtec International Agree to Post-Shutdown Sale of Indian Point Energy Center

On April 16, 2019, Entergy Corporation announced that it has agreed to sell the subsidiaries that own Indian Point Units 1, 2 and 3 to a Holtec International subsidiary for decommissioning. The sale, which will be effective after Unit 3 has been shut down and permanently defueled, includes the transfer of the licenses, spent fuel, decommissioning liabilities and Nuclear Decommissioning Trusts (NDT) for the three units. The Indian Point reactors are located in Buchanan, New York.

16 *LLW Notes* March/April 2019

"The sale of Indian Point to Holtec is expected to result in the completion of decommissioning decades sooner than if the site were to remain under Entergy's ownership," said Entergy Chair and Chief Executive Officer Leo Denault. "With its deep experience and technological innovations, Holtec's ability to decommission Indian Point will benefit stakeholders in the surrounding community."

With this agreement to sell Indian Point, Entergy has now announced the sale of its entire remaining merchant nuclear fleet for decommissioning.

Overview

Following regulatory approvals and transaction close, Holtec plans to initiate decommissioning at Indian Point decades sooner than if Entergy continued to own the units. A more defined timetable will be developed in connection with Holtec's preparation of its Post-Shutdown Decommissioning Activities Report (PSDAR) and Site-Specific Decommissioning Cost Estimate (DCE). Holtec plans to submit those reports to the U.S. Nuclear Regulatory Commission (NRC), likely in the fourth quarter of 2019. The transaction closing is targeted for the third quarter of 2021.

The transaction is subject to closing conditions, including approval from the NRC. In addition, the companies also plan to seek an order from the New York State Public Service Commission (PSC) disclaiming jurisdiction, or alternatively, approving the transaction. Closing is also conditioned on obtaining from the NYS Department of Environmental Conservation (DEC) an agreement confirming that Holtec's decommissioning plans are consistent with applicable standards.

Entergy remains committed to the safe and reliable operation of Indian Point Unit 2 and Unit 3 until their permanent shutdowns in 2020 and 2021, respectively.

Next Steps

With the acquisition of the Indian Point Energy Center, Holtec's fleet is expected to grow to six reactors at four nuclear facilities and an independent spent fuel storage installation located in Michigan, New York, New Jersey and Massachusetts. The Oyster Creek and Pilgrim license transfer application requests are pending at the NRC, with anticipated closings in 2019, subject to NRC approval. Holtec and its affiliates specializing in demolition and decommissioning will deploy operating processes and methods that enable them to expedite site clean-up and minimize occupational dose to workers. Minimizing any incidental disruption of the land, water and air at and around the IPEC site is an overarching undertaking that is a part of Holtec's core expertise.

Holtec expects to accrue tangible benefits to the local community by returning the site – excluding the heavily shielded storage casks on the storage pad safely storing the spent nuclear fuel — to productive use much sooner than would occur if Entergy selected the maximum SAFSTOR option under the NRC regulations. Holtec will transfer all of the used nuclear fuel to its dry fuel storage cask systems to be stored at the on-site reinforced concrete pads until the U.S. Department of Energy (DOE) removes it in accordance with its legal obligations, or until Holtec's proposed Consolidated Interim Storage Facility (CISF) in New Mexico, named HI-STORE CIS, is ready to begin accepting used fuel from across the country. The spent fuel storage pads will remain under guard, monitored during shutdown and decommissioning, and subject to the NRC's oversight.

"Holtec will execute the decommissioning of Indian Point with the same culture of excellence that has undergirded our company's ascent to a first-tier nuclear technology firm," said Dr. Kris Singh, President & CEO of Holtec International. "Our industry-leading expertise and deep experience permit us to complete

LLW Notes March/April 2019 17

decommissioning at Indian Point decades sooner than if Entergy remained the owner and performed decommissioning itself. The potential for the site to be released decades sooner for redevelopment could deliver significant benefits to local community stakeholders and the local economy."

"Holtec will hire Entergy's employees at Indian Point who are employed at the site at the time of the transaction and identified by Entergy as an employee whose services are required for that phase of decommissioning," states Dr. Singh. "Holtec looks forward to engaging with site employees, the local community and other stakeholders over the coming months and years as we discuss our vision for the decommissioning of Indian Point."

Holtec and Comprehensive Decommissioning International (CDI), a U.S.-based joint venture company formed in 2018 between Holtec and SNC-Lavalin, have agreed to enter into a Decommissioning General Contractor Agreement for CDI to perform the decommissioning of the Indian Point site. CDI's decommissioning plan is backed by decades of experience managing complex projects in both commercial and government nuclear sectors around the world. Ownership of the plants and management of the decommissioning trust funds at Indian Point will remain solely with Holtec, post-transaction.

Background

Indian Point Energy Center Indian Point Energy Center is home to two operating nuclear power plants, Unit 2 and Unit 3, which generate approximately 2,000 megawatts of electricity for homes, business and public facilities in New York City and Westchester County. Indian Point Unit 2 and Unit 3 are scheduled to shut down by April 30, 2020 and April 30, 2021 as part of an agreement with New York State. Indian Point Unit 1 was shut down in 1974. **Entergy Corporation** Entergy Corporation is an integrated energy company engaged primarily in electric power production and retail distribution operations. Entergy owns and operates power plants with approximately 30,000 megawatts of electric generating capacity, including nearly 9,000 megawatts of nuclear power. Entergy delivers electricity to 2.9 million utility customers in Arkansas, Louisiana, Mississippi and Texas. Entergy has annual revenues of \$11 billion and nearly 13,700 employees. Additional information is available at www.entergy.com.

Holtec International Holtec International is a privately held energy technology company with operation centers in Florida, New Jersey, Ohio and Pennsylvania in the United States, as well as globally in Brazil, Dubai, India, South Africa, Spain, the United Kingdom and Ukraine. Holtec's principal business concentration is in the nuclear power industry. Holtec has played a preeminent role since the 1980's in expanding nuclear plants' wet spent fuel storage capacity at over 110 reactor units in the U.S. and abroad. Dry storage and transport of nuclear fuel is another component of Holtec's operations at over 115 reactor units around the globe. Among the Company's pioneering endeavors is the world's first below ground CISF being developed in New Mexico and a 160-Megawatt walk away safe small modular reactor, SMR-160. The SMR-160 is developed to bring cost competitive carbon-free energy globally. Holtec is also a major supplier of special-purpose pressure vessels and criticalservice heat exchange equipment such as aircooled condensers, steam generators, feed water heaters and water-cooled condensers. Virtually all products produced by the company are built in its three large manufacturing plants in the U.S. and one in India. Additional information about Holtec International is available at www.holtecinternational.com.

Comprehensive Decommissioning

International Comprehensive Decommissioning International, LLC (CDI) is a jointly owned company of Holtec International and SNC-

Lavalin that is headquartered in Camden, New Jersey. CDI is a general decommissioning contractor that provides comprehensive project solutions for retiring nuclear power plants. CDI brings together a legacy of expertise and technological innovation to protect the public in an environmentally responsible, safe and ethical manner. CDI is committed to the enhancement of the communities in which it operates, employing financially sustainable business practices that ensure the upholding of obligations made as a trusted steward of legacy nuclear materials.

State of New Hampshire

NRC Renews Seabrook Station Operating License

On March 12, 2019, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency has renewed the operating license of Seabrook Station for an additional 20 years.

Seabrook's license will now expire on March 15, 2050. The single pressurized-water reactor is located in Seabrook, New Hampshire – approximately 13 miles south of Portsmouth. The operator, NextEra Energy Seabrook, submitted the renewal application in May 2010.

Overview

The NRC's review of the application proceeded on two tracks. A safety evaluation report was issued in September 2018 and a final supplemental environmental impact statement was issued in July 2015. These documents, as well as other information regarding the Seabrook license renewal application, are available on the NRC website at www.nrc.gov.

The renewal review accounted for the discovery of a rare concrete degradation issue, "alkali-silica

reaction" at Seabrook. NextEra applied in August 2016 to amend Seabrook's license for appropriate analysis of ASR-affected components. The NRC approved the amendment on March 11.

The NRC's Advisory Committee on Reactor Safeguards (ACRS) also reviewed the staff's work on the license renewal application and recommended its approval.

Background

With the renewal of the Seabrook operating license, 94 commercial nuclear power reactors have received renewed licenses. However, four of those have since permanently shut down.

Three applications for subsequent license renewal are currently under review.

Information about reactor license renewal is available on the NRC website at www.nrc.gov.

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

Industry

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

Peach Bottom Nuclear Power Plant On March 27, 2019, a U.S. Nuclear Regulatory Commission (NRC) Atomic Safety and Licensing Board (ASLB) heard oral argument in Rockville, Maryland regarding a petition to hold an adjudicatory hearing related to an Exelon Generation Company's application to renew the operating licenses for the Peach Bottom reactors in Delta, Pennsylvania. The oral argument was heard in the ASLB Hearing Room at NRC headquarters to address the standing of the petitioner, Beyond Nuclear, and the admissibility of Beyond Nuclear's proposed contentions. During the hearing, the three administrative judges on the Board heard argument from counsel for Beyond Nuclear, Exelon and the NRC staff. The argument was open to the public. The Board is composed of three administrative judges from the NRC's ASLB Panel. Boards, which are independent of the NRC staff, conduct adjudicative hearings on major licensing actions by the NRC. A Board's rulings may be appealed to the Commission, which is the five-member body that sets NRC policy. For additional information, please contact Scott Burnell at (301) 415-8200.

Prime NDT On April 2, 2019, NRC announced that a settlement agreement was reached with a Pennsylvania company to implement numerous corrective actions and enhancements related to the secure handling of nuclear materials. Prime NDT is based in Schnecksville, Pennsylvania. The firm, which will also pay a \$3,500 fine, asked to take part in the NRC's Alternate Dispute Resolution (ADR) process under which conflicts are resolved using a neutral third party. The firm took the action following an NRC inspection where the agency identified one or more potentially escalated apparent violations associated with the theft of a device containing a radioactive source. The theft occurred in Ripley, West Virginia on September 1, 2018. The incident occurred when the vehicle in which the device was being transported was stolen. Both the device, which is used for industrial radiography, and the vehicle were recovered within several hours. The device remained locked in the vehicle and there were no public health consequences as a result of the event. The company's actions are detailed in a confirmatory order that was issued by the NRC. The agency will not pursue further enforcement action. For additional information, please contact Diane Scenci at (610) 337-5330 or Neil Sheehan at (610) 337-5331.

Rocky Mountain Board/State of New Mexico

Church Rock Mill Site On March 18, 2019, NRC announced the opportunity to request an adjudicatory hearing on United Nuclear Corporation's proposal to move mine waste onto the Church Rock mill site in northwestern New Mexico. The hearing opportunity was announced in a *Federal Register* notice that was published on March 13, 2019. The notice provides detailed instructions on how to file a request, including requirements for demonstrating standing and submitting specific contentions admissible in a hearing. Hearing requests are due by May 13, 2019. United Nuclear, a subsidiary of General Electric, is seeking an amendment to its NRC license that would authorize the transfer of

Industry continued

approximately 1 million cubic yards of contaminated soil, known as "mine spoils," from the North East Church Rock mine to the nearby Church Rock uranium mill site for disposal at the mill's waste facility, called a "tailings impoundment." The mill is located about 17 miles northeast of Church Rock, adjacent to the Navajo Reservation. In a Federal Register notice that was published in February 2019, the NRC announced its intention to prepare an environmental impact statement on the proposed transfer. The agency staff is seeking public comments to help define the scope of the environmental review. The Federal Register notice provides detailed instructions for submitting comments, which were accepted through April 19, 2019. The Church Rock uranium mill operated from 1977 to 1982, processing uranium ore from the Northeast Church Rock Mine under a state of New Mexico license. Since 1988, the mill has been under dual regulatory oversight of the NRC and the U.S. Environmental Protection Agency (EPA) under a Memorandum of Understanding (MOU) between the two agencies. The NRC is the lead agency regulating surface reclamation and closure activities at the site under an NRC license and the Uranium Mill Tailings Radiation Control Act of 1978. The EPA is the lead agency that is regulating cleanup of the mine. United Nuclear's proposal to dispose of the mine spoils at the mill site is part of a broader cleanup action by the EPA under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process. Stakeholders involved in this action include the NRC, EPA, the Navajo Nation Environmental Protection Agency, the U.S. Department of Energy (DOE) and the New Mexico Environment Department. For additional information, please contact Scott Burnell at (301) 415-8200.

Southeast Compact/States of Florida and Tennessee

Turkey Point Nuclear Power Plant On May 1, 2019, NRC staff met in Homestead, Florida to

discuss the agency's draft environmental impact statement on a subsequent license renewal application from Florida Power & Light (FP&L) for Turkey Point Nuclear Generating Units 3 and 4. In its application, FP&L is seeking an additional 20 years of operation. The NRC is seeking the public's views on the draft conclusion that environmental issues would be minor ones, allowing the agency to issue the renewed license. During the meetings, which were held at the Homestead City Hall, NRC staff described the environmental review process and the draft findings. Each meeting's presentations were followed by a formal public comment period. The NRC also scheduled open-house events to enable members of the public to speak informally with agency staff. NRC staff will also consider written comments on the draft EIS until May 20, 2019. FP&L submitted the Turkey Point subsequent license renewal application on January 30, 2018. The subsequent license renewal process determines whether an operating reactor can extend its license for an additional 20 years initial license renewals add 20 years to a reactor's original 40-year license. The application, less proprietary details, is available on the NRC website at www.nrc.gov. For additional information, please contact Scott Burnell at (301) 415-8200.

Clinch River Early Site Permit On April 8, 2019, NRC staff issued the final environmental impact statement on the early site permit application for the Clinch River site. The NRC has concluded there are no environmental impacts that would preclude issuing the permit. The final statement was developed in cooperation with the U.S. Army Corps of Engineers (Nashville District) and is available on the NRC website at www.nrc.gov. The two-volume statement and associated reader's guide are also available via the NRC's electronic document database, ADAMS, under accession numbers ML19045A621 (the guide), ML19073A099 and ML19073A109. The NRC held meetings in Oak Ridge, Tennessee in May 2017 to gather comments from the surrounding community regarding issues to

LLW Notes March/April 2019 21

Industry continued

include in the environmental review. The NRC held additional meetings in Kingston, Tennessee in June 2018 to discuss the draft environmental impact statement. The NRC Commissioners must hold a mandatory hearing, expected later this year, before the agency can reach a final decision on issuing the permit. The Tennessee Valley Authority (TVA) submitted the Clinch River application in May 2016. The early site permit process determines whether a site is suitable for potential future construction and operation of a nuclear power plant. TVA's application is seeking resolution of safety and environmental issues related to siting a potential small modular reactor at the site, which is located approximately 5 miles southwest of Oak Ridge, Tennessee. The NRC has established docket number 52-047 for this application. Additional information about the new reactor licensing process is available on the NRC website at www.nrc.gov. For additional information, please contact Scott Burnell at (301) 415-8200.

Southwestern Compact/State of California

Southern California Edison Company On March 25, 2019, NRC proposed a \$116,000 civil penalty to Southern California Edison Company for two violations of NRC requirements related to a fuel-loading incident that occurred on August 3, 2018. The San Clemente, California plant, which is owned by Southern California Edison, permanently ceased operations in 2013. The violations related to the failure to ensure the availability of important safety equipment to provide redundant drop protection for a spent fuel canister during downloading operations into a storage vault. The violations also included failure to make a timely notification to the NRC Operations Center following the incident. The violations are described in an NRC special inspection report that was dated December 19, 2018. NRC held a pre-decisional enforcement conference in Arlington, Texas on January 24, 2019. The purpose of the conference was to discuss preliminary findings identified by the special inspection team. The conference was

open to public observation and available via a webcast. A letter sent to the company provided details about the proposed civil penalty. Southern California Edison has 30 days to dispute the fine or request involvement of a neutral third-party mediator to resolve the issues. The company has committed not to resume fuel loading without NRC approval. *For additional information, please contact Victor Dricks at (817) 200-1128.*

Texas Compact/State of Texas

Team Industrial Service, Inc.

On March 8, 2019, NRC announced that the agency is proposing a \$14,500 fine to Team Industrial Service, Inc. of Alvin, Texas for failing to lock a radiography device before bringing it aboard a U.S. Navy vessel to examine pipe welds. The NRC considers the violation significant because a safety barrier was not in place while the device was being hand-carried aboard a U.S. Navy ship, which could have resulted in an inadvertent exposure. NRC investigators concluded the violation was willful, as described in an inspection report dated January 4, 2019. Company officials responded to the NRC's preliminary finding in a letter dated February 6, 2019. The company has 30 days to dispute the fine or request involvement of a neutral thirdparty mediator to resolve the issue. For additional information, please contact Victor Dricks at (817) 200-1128.

Congress

U.S. Congress

NRC Proposes FY 2020 Budget to Congress

On March 11, 2019, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency is proposing to Congress a budget of \$921 million for fiscal year (FY) 2020. The request is \$10 million higher than the FY 2019 budget, reflecting 44 fewer full-time equivalent (FTE) employees.

Overview

The increase in the FY 2020 request takes into account the inclusion of \$38 million to support licensing activities for the proposed deep geological repository for spent nuclear fuel and high-level radioactive waste at Yucca Mountain in Nevada.

The budget also includes \$15 million for the continued development of a regulatory infrastructure for advanced reactor technologies.

The agency's budget has decreased by more than \$130 million, including a reduction of more than 700 FTE since 2014.

Details

Details of the budget include:

- Funding of \$449.5 million for nuclear reactor safety; \$165.7 million for nuclear materials and waste safety, which includes the \$38 million for the proposed Yucca Mountain repository; and, \$292.6 million for corporate support.
- Support for 3,062 FTE employees, including the Office of Inspector General (OIG), and a reduction of 44 FTE from the FY 2019 enacted budget. Proposed reductions in staffing are primarily due to declining

workload; efficiencies in the processing of licensing actions; three plants to be decommissioned; the merger of the Office of Nuclear Reactor Regulation (NRR) and the Office of New Reactors; and, Wyoming's transition to Agreement State status.

The inclusion of \$13.3 million for the OIG, an independent office that conducts audits and investigations to ensure the efficiency and integrity of NRC programs and to promote cost-effective management. The OIG's budget also includes funding to provide auditing and investigation services for the Defense Nuclear Facilities Safety Board (DNFSB).

Since the NRC recovers approximately 90 percent of its budget from licensee fees, which are sent directly to the U.S. Treasury, the resulting net appropriation request is \$161 million.

The budget briefing slides and the Congressional Budget Justification will be available on the NRC website at https://www.nrc.gov/reading-rm/doccollections/nuregs/staff/sr1100.

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

U.S. Environmental Protection Agency (EPA)

Senate Confirms Andrew Wheeler as EPA Administrator

On February 28, 2019, the U.S. Senate confirmed a former coal industry lobbyist to lead the U.S. Environmental Protection Agency (EPA). The Senate confirmed Wheeler, who has been serving as the EPA Administrator in an acting capacity after former EPA Administrator Scott Pruitt resigned amongst a series of ethics investigations, by a vote of 52 to 47.

Senator John Barrasso (R-WY), Chair of the Senate Environment Committee, called Wheeler "uniquely qualified" to lead EPA and said that under Wheeler the agency is putting forward proposals that "both protect our environment and allow the country's economy to flourish." But Senator Tom Udall (D-NM), said Wheeler was failing to protect the environment and human health and was "nominated to unravel and undo the environmental protections that are now in place."

Senator Susan Collins (R-ME) was the sole Republican to oppose Wheeler. "Wheeler understands the mission of the EPA and acts in accordance with ethical standards," said Collins in a statement. "However, the policies he has supported as [A]cting [A]dministrator are not in the best interest of our environment and public health, particularly given the threat of climate change to our nation."

Overview

Wheeler is a former lobbyist for coal mining giant Murray Energy Corporation and other companies. Prior to his confirmation, he had been serving as the acting EPA Administrator since July 2018, following the resignation of then-EPA Administrator Scott Pruitt. Following the confirmation, Wheeler's responsibilities and duties remain the same. Without confirmation, however, his ability to serve in an acting capacity may have been limited to a maximum of 210 days under current law.

Wheeler, who was confirmed by the U.S. Senate as Deputy Administrator in April 2018, has overseen significant action on some of the most consequential deregulatory proposals by the EPA. During his tenure as Acting Administrator, the EPA has proposed to replace limits on carbon dioxide pollution from power plants; to cease plans to strengthen auto emissions and efficiency rules; and, to limit restrictions on wetlands and streams.

"Acing Administrator Wheeler has done an outstanding job leading EPA and is well qualified to run the agency on a permanent basis," said Senator Barrasso after his nomination. "I will work with committee members to get him confirmed." Senator Barraso serves as Chair of the Environment and Public Works Committee, which was responsible for reviewing the nomination.

"The only thing Wheeler is going to protect at the EPA is the profits of polluters," said Brett Hartl in a prepared statement after the nomination. "I'm sure corporate board rooms will celebrate this nomination," continued Hartl, who serves as Government Affairs Director at the Center for Biological Diversity. "But for anyone who drinks water, breathes air or cares about wildlife, this will be nothing but awful."

Background

President Donald Trump formally nominated Andrew Wheeler to serve as the EPA Administrator on January 9, 2019. (See *LLW Notes*, January/February 2019, p. 32.) "I am honored and grateful that President Trump has nominated me to lead the Environmental Protection Agency," said Wheeler in a statement at the time of the nomination. "For me, there is

no greater responsibility than protecting human health and the environment, and I look forward to carrying out this essential task on behalf of the American people.

Wheeler began his career at the EPA in the early 1990's, working on toxic substance policy. He later worked on Capitol Hill as a top aide to Senator James Inhofe (R-OK), a former Chair of the Environment and Public Works Committee and a vocal skeptic of climate change science.

Wheeler also worked at the law and lobbying firm of Faegre Baker Daniels. During his time at the law firm, Wheeler served as a lobbyist for energy and coal companies.

U.S. Nuclear Regulatory Commission (NRC)

NRC Terminates Rulemaking re Special Nuclear Material Accounting

In April 2019, it was announced that all five members of the U.S. Nuclear Regulatory Commission (NRC) voted unanimously to terminate a decade-long, multimillion dollar program to update federal regulations on material control and accounting (MC&A) of special nuclear materials.

"The Commission has disapproved the draft final rule," stated NRC Commission Secretary Annette Vietti-Cook in an April 3 memorandum to NRC Executive Director for Operations Margaret Doane. "The staff should discontinue this rulemaking activity. The staff should evaluate the history of this rulemaking activity as a lessonslearned/case study under the agency transformation initiative."

Overview

According to the summary of their decisions, the Commissioners posted their votes from February 15, 2019 through March 22, 2019. The summary of their decisions included explanations of varying length.

Commissioner Jeff Baran cited three major objections to the proposal, with concurrence from NRC Chairman Kristine Svinicki and others:

- inconsistency on whether the updated rules should be performance-based or prescriptive;
- the absence of technical support for key elements of the update; and,
- that many recommendations "would not result in any real-world safety or security benefit."

As one example, Baran noted that licensees are not forced to establish material balance areas, item control areas and material custodians, but that all Category 3 licensees have taken those steps to meet the mandate to keep track of their special nuclear material. "The draft final rule would keep this performance-based requirement and then add a prescriptive requirement to take these specific actions," wrote Baran. "I have not heard a convincing rationale for this approach, and it is unclear what problem needs to be solved."

Baran noted that staff affirmed that general performance objectives were not expected to force revisions to "current effective licensee practices." However, affected licensees would still have to evaluate their MC&A operations – additional paperwork with doubtful value to strengthening safety and security.

"The staff has spent ten years and several million dollars working on this rulemaking yet the

package fails to provide an adequate basis for a Commission finding that these changes to the MC&A regulations are necessary," wrote Commissioner Annie Caputo in her comments.

According to NRC spokesman David McIntyre, the rulemaking proceeding cost just over \$2 million. By statute, 90% of agency costs must be recovered through licensee fees, although the agency has not stated whether fees covered this proceeding.

Background

The 1954 Atomic Energy Act (AEA) designates plutonium, uranium-233 and uranium enriched in uranium-233 or uranium-235 as special nuclear material. These materials contain fissile isotopes that can be used in nuclear weapons. Facilities that hold the materials are ranked in descending risk levels in Category 1, 2 or 3.

Rules for material control and accounting are primarily covered under Part 74 of Title 10 of the *Code of Federal Regulations*, which establishes requirements for NRC nuclear facilities or materials licensees.

An April 2008 plan from NRC staff laid out six options for a rulemaking on MC&A regulations. In 2009, the Commission selected a limited process to revise, clarify and augment the standing rules.

In November 2012, following extended development and public notice, NRC staff presented the Commission with a proposed rule. In May 2013, the Commission rejected publication of the proposed rule over its "twoperson" provision, which would have mandated that no fewer than two "authorized and qualified persons" be present for any applicable data collection and reporting operation. Rather than continuing to analyze the provision, staff removed it and initiated another comment period for the updated proposed rule. In October 2018, Doane presented the Commission with a draft final rule that, among other things, would:

- clarify current rules for item control at Category 2 and 3 facilities, those holding special nuclear material of low and moderate security significance;
- consolidate general performance objectives and expand them to cover additional facilities, including spent fuel storage pads;
- expand the requirement for maintaining tamper-safing procedures, if a licensee is using temper-safing (which is defined by federal regulations as "the use of devices on containers or vaults in a manner and at a time that ensures a clear indication of any violation of the integrity of previously made measurements of special nuclear material within the container or vault), to Category 3 sites; and,
- require licensees to establish at least one material balance area and item control area – zones used to ensure that special nuclear materials are accounted for and under control.

John Lubinski Named NMSS Director at NRC

By press release dated March 13, 2019, the U.S. Nuclear Regulatory Commission (NRC) announced that John Lubinski has been selected as the Director of the Office of Nuclear Material Safety and Safeguards (NMSS).

Overview

"John Lubinski is a proven leader with a wide range of experience at the NRC, having served in a variety of key roles across the agency for nearly

29 years," said NRC Executive Director for Operations Margaret Doane. "His dedication and commitment to ensuring public health and safety in his regulatory capacity makes him a superb choice for this important position."

Lubinski will transition into the position later this month. He succeeds Marc Dapas, who retired in February 2019.

Background

Lubinski began his career at NRC as a Mechanical Engineer in NMSS in May 1990. During his tenure, Lubinski served in a number of high profile positions, including Senior Enforcement Specialist, Office of Enforcement; Chief, Inspection Section; and, Chief, Fuel Manufacturing Section in NMSS.

He held several other key positions in the Office of Nuclear Reactor Regulation (NRR), including Director, Division of Engineering. Most recently, Lubinski served as Deputy Director, Office of Nuclear Security and Incident Response.

Lubinski is a graduate of the NRC Senior Executive Service Candidate Development Program and Leadership Potential Program. He earned a Bachelor of Science degree in Mechanical Engineering from the University of Maryland.

For additional information, please contact NRC's Office of Public Affairs at (301) 415-8200.

Community Engagement Panels re Decommissioning Power Plants

On March 19, 2019, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency is seeking comments from the public on potential locations for a series of public meetings to discuss best practices for community engagement panels near decommissioning nuclear power plants.

The request is an initial step under the Nuclear Energy Innovation and Modernization Act (NEIMA), which was signed into law in January 2019. NEIMA included, among other things, a requirement that the NRC submit a report to Congress on best practices for community engagement panels in areas surrounding nuclear power plants that have ceased operations and begun decommissioning.

Overview

In developing a best practices report, and as required by NEIMA, the NRC plans to consult with host states, communities within the emergency planning zone of a nuclear power reactor and existing local community advisory boards. This consultation also includes a minimum of 10 public meetings in locations that ensure geographic diversity across the United States, with priority given to states that have a nuclear power reactor currently undergoing the decommissioning process and request a public meeting under this provision of NEIMA.

Comments

In a *Federal Register* noticed that was issued on March 18, 2019, the NRC gave specific instructions for submitting comments through the federal government's rulemaking website, using Docket Number NRC-2019-0073. (See 84

Federal Register 9,841 dated March 18, 2019.) Comments were accepted through April 17, 2019.

Next Steps

The best practices report is scheduled to be issued to Congress by June 2020, and will include a discussion of the composition of existing community advisory boards and best practices identified during the establishment and operation of such boards, such as logistical considerations, frequency of meetings and the selection of board members.

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

NRC Issues Information Notices and Regulatory Issue Summaries

In March and April 2019, the U.S. Nuclear Regulatory Commission (NRC) released the first two Regulatory Issue Summaries (RIS) and the first Information Notice (IN) for calendar year 2019.

Regulatory Issue Summaries

NRC released the following RIS documents in March and April 2019:

 RIS 2019-01, Clarification of Export Reporting Requirements for Nuclear Facilities, Equipment and Non-Nuclear Materials, was issued on March 15, 2019 to clarify the existing quarterly reporting requirements under 10 CFR 110.54(a)(1) for persons who make certain exports under either a general or a specific license. RIS 2019-01 does not require specific action or written responses on the part of addressees.

RIS 2019-02, Preparation and Scheduling of ٠ Operator Licensing Examinations, was issued on April 17, 2019 to inform addressees of the NRC staff's need for updated information on projected site-specific operator licensing examination schedules and on the estimated number of applicants planning to take operator-licensing examinations. This information will help the NRC plan its resources more effectively. RIS 2019-02 supersedes in its entirety RIS 2018-02, Preparation and Scheduling of Operator Licensing Examinations, dated March 26, 2018 (ADAMS Accession No. ML18029A423) and requires no action or written response on the part of addressees. Addressee actions to collect and transmit the requested information are strictly voluntary.

Information Notice

NRC released the following IN documents in March 2019:

• IN 2019-01, Inadequate Evaluation of Temporary Alterations, was issued on March 15, 2019 to alert licensees about recent operating experience at nuclear power facilities where temporary alterations were installed that either negatively impacted the operability of affected Systems, Structures and Components or without performing required 10 CFR 50.59 reviews. The NRC expects that recipients will review the information contained in IN 2019-01 for applicability to their facilities and consider actions, as appropriate, to avoid similar issues. IN's may not impose new requirements, and nothing in IN 2019-01 should be interpreted to require specific action.

Additional information can be found on the NRC's website at www.nrc.gov.

NRC Issues Annual Assessments for Nation's Nuclear Plants

On March 7, 2019, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency has issued annual letters to the nation's 98 commercial nuclear power plants operating in 2018 regarding their performance throughout the year. All were in the two highest performance categories.

Overview

Ninety-three of the 98 commercial nuclear power plants fully met all safety and security performance objectives and were inspected by the NRC using the normal "baseline" inspection program.

Four reactors were assessed as needing to resolve one or two items of low safety significance. For this performance level, regulatory oversight includes additional inspection and follow-up of corrective actions. Plants in this level include:

- Grand Gulf (Mississippi);
- Peach Bottom 2 & 3 (Pennsylvania); and,
- Watts Bar 2 (Tennessee).

Watts Bar 2 resolved its issues since the reporting period ended and has transitioned to the highest performing level.

There were no reactors in the third performance category with a degraded level of performance.

One reactor has transitioned out of the fourth performance category. Pilgrim (Massachusetts) was in that category because of now-resolved issues of low-to-moderate safety significance. Reactors that reach this category receive additional inspections to confirm the performance issues are being addressed. Pilgrim's latest additional inspection concluded the plant could return to the highest performance level.

Next Steps

Later this spring and summer, the NRC will host a public meeting or other event in the vicinity of each plant to discuss the details of the annual assessment results. A separate announcement will be issued for each public assessment meeting.

In addition to the annual assessment letters, plants also receive an NRC inspection plan for the coming year.

Background

Information on the NRC's oversight of commercial nuclear power plants is available through the NRC's webpage on the Reactor Oversight Process at https://www.nrc.gov/ reactors/operating/oversight.html.

The NRC routinely updates information on each plant's current performance and posts the latest information as it becomes available to the action matrix summary at https://www.nrc.gov/reactors/operating/oversight/ actionmatrix-summary.html.

Assessment letters are posted on the NRC website at https://www.nrc.gov/reactors/operating/ oversight/listofasmrpt.html. To access the letters, click on "2018q4" for each plant for the 2018 annual assessment.

Annual construction oversight assessments for new reactors at the Vogtle Units 3 and 4 sites are also available on the NRC website at https:// www.nrc.gov/reactors/new-reactors/oversight/ crop/con-assess-reports.html.

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

To Obtain Federal Government Information

by telephone

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

by internet

NRC Reference Library (NRC regulations, technical reports, information digests, and regulatory guides)www.nrc.gov	7
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	7
EPA • (for program information, publications, laws and regulations)www.epa.gov	7
U.S. Government Printing Office (GPO) (for the Congressional Record, <i>Federal Register</i> , congressional bills and other documents, and access to more than 70 government databases)	V

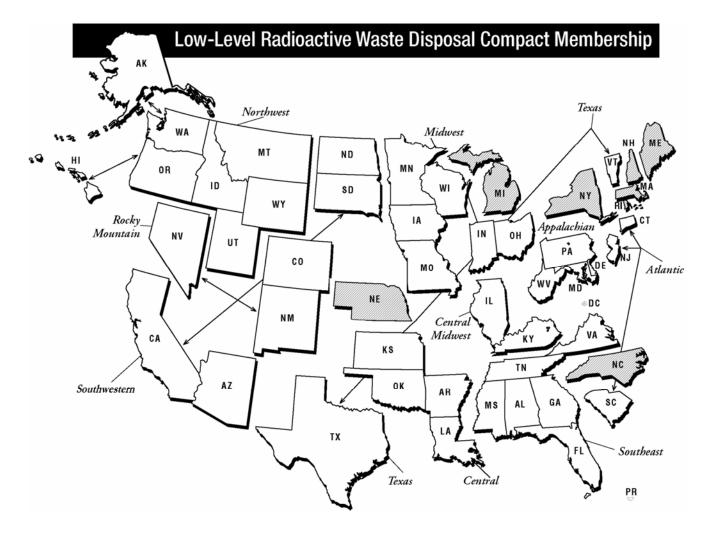
GAO homepage (access to reports and testimony)www.gao.gov

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

Acknowledgement and Disclaimer

<u>Acknowledgement</u>: This material is based upon work supported in part by the U.S. Department of Energy under Award Numbers DE-EM0001364 and DE-em0003153.

<u>Disclaimer</u>: Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.



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

Northwest Compact

Alaska Hawaii Idaho Montana Oregon Utah Washington

- -

Wyoming

Midwest Compact

Indiana Iowa Minnesota Missouri Ohio Wisconsin

Rocky Mountain Compact

Colorado Nevada New Mexico

Northwest accepts Rocky Mountain waste as agreed between compacts

Southeast Compact

Alabama Florida Georgia Mississippi Tennessee Virginia

Southwestern Compact Arizona California North Dakota South Dakota

Texas Compact Texas Vermont

Unaffiliated States

District of Columbia Maine Massachusetts Michigan Nebraska New Hampshire New York North Carolina Puerto Rico Rhode Island