

Volume 31 Number 2 March/April 2016

U.S. Nuclear Regulatory Commission (NRC)

NRC Releases Results of Byproduct Material Financial Scoping Study

Staff Recommends Expanding Financial Assurance Requirements to Category 1 and 2 Radioactive Sealed Sources that are Tracked in National Source Tracking System

On April 27, 2016, the U.S. Nuclear Regulatory Commission (NRC) released SECY-16-0046, *Results of the Byproduct Material Financial Scoping Study*, to provide the Commission with the results of the staff's byproduct material financial scoping study and recommendations for next steps.

NRC also released an accompanying document titled, Financial Planning for Radioactive Byproduct Material—Scoping Report, that provides background information; reviews key reports and recommendations; analyzes technical considerations; discusses decommissioning financial assurance requirements and funding plans; considers financial assurance methods and funding mechanisms, disposition paths other than disposal, and establishing funding requirements for disposition; reviews life-cycle issues, orphan sources, timeliness in declaring and dispositioning disused sources, and tracking; considers applicability to General Licenses, compatibility with Agreement State requirements, and security considerations; provides an overview of disposal access, U.S. Department of Energy/National Nuclear Security Administration (DOE/NNSA)

source recovery and disposal programs, and transportation considerations; and, so forth.

SECY-16-0046 may be found on the NRC's web site at www.nrc.gov under Accession Number ML16068A202. Enclosure 1 may be found on the web site under Accession Number ML16068A205.

Overview and Conclusions

The adequacy of financial planning for disposition of disused radioactive sealed sources has been raised in a number of external reports issued over (Continued on page 23)

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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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Key to Abbreviations U.S. Department of Energy DOE U.S. Department of Transportation DOT 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 NARM Naturally-occurring radioactive material NORM

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

LLW Forum Holds Spring 2016 Meeting in Park City, Utah

The Low-Level Radioactive Waste Forum (LLW Forum) held its spring 2016 meeting at the Marriott Hotel in Park City, Utah on April 13-14, 2016. The meeting included an optional site tour of the Energy*Solutions*' Clive low-level radioactive waste disposal facility for interested stakeholders on the afternoon of April 12, 2016. The Disused Sources Working Group (DSWG) also met on April 14-15, 2016. (See related story, this issue.)

The meeting was co-sponsored by the State of Utah's Division of Waste Management and Radiation Control (DWMRC) and Energy*Solutions*.

Additional information regarding LLW Forum meetings can be found on the organization's web site at www.llwforum.org.

Agenda

The following is an overview of some of the topics included on the final agenda for the spring 2016 LLW Forum meeting:

- licensing and activities updates for the EnergySolutions' Clive facility in Tooele County, Utah and the Waste Control Specialists LLC (WCS) facility in Andrews County, Utah;
- update from U.S. Nuclear Regulatory Commission (NRC) regarding their low-level radioactive waste program and emerging issues;
- inquiry from Texas regarding the potential licensing of a disposal cell for Greater-than-Class C (GTCC), GTCC-like and transuranic waste;

- the issuance of a Final Environmental Impact Statement (FEIS) on the disposal of GTCC and GTCC-like wastes;
- the Waste Isolation Pilot Plant (WIPP) and the path forward for addressing transuranic waste across the U.S. Department of Energy (DOE) complex;
- industry, waste disposal facility operators and sited states' stakeholder panels to provide comments and input on the potential impacts from early decommissioning of nuclear power plants;
- recent events and fire at the Beatty, Nevada low-level radioactive waste disposal facility;
- administrative rules and regulatory updates to addres landfill disposal of Technologically Enhanced Naturally Occuring Radioactive Material (TENORM) in North Dakota;
- implementation of the revised Branch Technical Position on Concentration Averaging and Encapsulation (CA BTP); and,
- a manufacturer's perspective regarding improving the management and disposition of disused sources.

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

PowerPoint Presentations

PowerPoint presentations from the spring 2016 LLW Forum meeting will remain available to registered meeting attendees via a passwordprotected Drop Box account through May 2016.

Registration is Now Open for the Fall 2016 LLW Forum Meeting Saratoga Springs, New York from November 7-8, 2016

The Low-Level Radioactive Waste Forum (LLW Forum) is pleased to announce that registration is now open for our fall 2016 meeting, which will be held at the Embassy Suites Hotel in Saratoga Springs, New York on November 7-8, 2016. Please mark your calendars accordingly and save the date!

Interested stakeholders are encouraged to register and make hotel reservations for the meeting at your earliest convenience, as there is limited space available in our discount room block.

The meeting is being sponsored by the New York State Energy and Research Development Authority (NYSERDA).

The meeting documents—including bulletin and registration form—have been posted to the LLW Forum's web site at www.llwforum.org. The meeting agenda will be posted once available.

Attendance

Officials from states, compacts, federal agencies, nuclear utilities, disposal operators, brokers/ processors, industry, and other interested parties are invited and encouraged to attend.

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

Location and Dates

The fall 2016 LLW Forum meeting will be held on Monday, November 7 (9:00 am - 5:00 pm) and Tuesday, November 8 (9:00 am - 1:00 pm) at:

Embassy Suites by Hilton Saratoga Springs 86 Congress Street Saratoga Springs, New York 12866

Located in the heart of downtown Saratoga Springs, the Embassy Suites is walking distance to the Saratoga Heritage Area Visitor's Center, Congress Park, the Canfield Casino, and Broadway for its restaurants and shopping.

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

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

Reservations

Persons who plan to attend the meeting are strongly encouraged to make their hotel reservations and send in their registration forms as

Low-Level Radioactive Waste Forum, Inc. continued

soon as possible, as we have exceeded our block at the last few meetings.

A limited block of hotel rooms has been reserved for meeting attendees for Sunday (November 6) and Monday (November 7) at the prevailing federal per diem rate (which is currently \$120/night) plus tax/single or double. A limited number of rooms are available at this rate for one day prior to and one day following the meeting, subject to availability.

To make a reservation, please call 1-800-HILTONS and ask for a room in the "LLW Forum block" at the Embassy Suites Saratoga Springs or use the following dedicated link:

http://embassysuites.hilton.com/en/es/groups/ personalized/A/ALBESES-LLW-20161105/ index.jhtml?WT.mc_id=POG

In order to receive the discounted rate, please make your reservation by October 6, 2016.

Transportation and Directions

Saratoga Springs is a 30-minute drive from the Albany International Airport.

A taxi from the airport to the hotel is a minimum estimated charge of \$50/each way. Driving directions from both airports can be found at http://embassysuites3.hilton.com/en/hotels/newyork/embassy-suites-by-hilton-saratoga-springs-ALBESES/maps-directions/index.html.

Parking at the hotel is free.

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

DSWG Meets in April 2016 in Park City, Utah

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

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

DSWG Holds Spring 2016 Meeting

The DSWG held its spring meeting in Park City, Utah from April 14-15, 2016. During the meeting, among other things, the DSWG

- met with brokers and processors to review suggestions for improved management and disposition of disused sources including proposals for the creation of a central source processing facility and to allow brokers to receive sources on a bill of lading;
- coordinated the development of educational materials for review and consideration by the E-34 Committee at the upcoming annual meeting of the Conference of Radiation Control Program Directors (CRCPD) in Lexington, Kentucky in mid-May 2016; and,
- planned the agenda for the summer 2016 DSWG meeting with representatives of CRCPD, the Organization of Agreement States (OAS) and the Health Physics Society (HPS) to identify areas of agreement and establish a path forward.

The spring 2016 DSWG meeting was open to DSWG members and invited guests.

States and Compacts

Background

The LLW Forum is a non-profit organization of representatives appointed by Governors and compact commissions that seeks to facilitate state and compact implementation of the Low-Level Radioactive Waste Policy Act of 1980 and its 1985 amendments, as well as to promote the objectives of regional low-level radioactive waste disposal compacts.

In September 2011, the LLW Forum formed the DSWG to develop recommendations from the states and compacts for improving the management and disposition of disused sources.

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

(Continued from page 4)

PowerPoint presentations from all recent LLW Forum meetings are available to LLW Forum members and subscribers on the restricted-access, members-only portion of the organization's web site at www.llwforum.org by going to the "Publications" page and clicking on "Meeting Agendas and Presentations."

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

Atlantic Compact/State of New Jersey

NRC To Issue Southern New Jersey Early Site Permit

On April 28, 2016, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency's Atomic Safety and Licensing Board (ASLB) has cleared the way for the agency's Office of New Reactors to issue an Early Site Permit (ESP) for a site adjacent to the Salem and Hope Creek nuclear power plants in Salem County, New Jersey.

The board's mandatory hearing on the application from PSEG Power LLC and PSEG Nuclear LLC found the staff's review adequate to make the necessary regulatory safety and environmental findings.

Overview

The NRC staff's technical review of the PSEG ESP application covered issues such as how the site's characteristics could affect plant safety, environmental protection, and plans for coping with emergencies.

"NRC staff will work to issue the ESP promptly, and the permit will be valid for up to 20 years from the issuance date," states the NRC's press release. "The permit resolves a number of siterelated issues, including many environmental impacts, but does not authorize any NRCregulated construction activities. PSEG would have to apply separately for an NRC license to build and operate a specific reactor design at the site."

Background

In September 2015, NRC staff issued a Final Safety Evaluation for the permits. Shortly thereafter, in November 2015, NRC staff published a Final Environmental Impact Statement (FEIS).

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Additional information on the PSEG ESP review is available on the NRC website at www.nrc.gov. For additional information, please contact Scott Burnell of the NRC at (301) 415-8200.

Appalachian Compact/Commonwealth of Pennsylvania

Final Environmental Impact Statement Issued for Bell Bend New Reactor

In April 2016, the U.S. Nuclear Regulatory Commission (NRC) and the Army Corps of Engineers concluded that environmental impacts would not prevent issuing a Combined License (COL) for a new reactor at the Bell Bend site in the Commonwealth of Pennsylvania. The site is adjacent to the existing Susquehanna nuclear power plant, approximately 70 miles northeast of Harrisburg, Pennsylvania.

The Bell Bend application and general information about new reactor licensing are available on the NRC website at www.nrc.gov.

Overview

NRC staff conducted an independent assessment of the Bell Bend COL application and plans to publish the environmental review in the *Federal Register* shortly. The review took into account consultations with other federal agencies, state, tribal and local governments, and considered comments received during the public scoping process in 2009 and 2012. The staff also considered comments received on the draft Environmental Impact Statement (EIS) issued in April 2015.

The NRC staff conclusions are documented in NUREG-2179, "Environmental Impact Statement

for the Combined License for the Bell Bend Nuclear Power Plant: Final Report," Parts One and Two. The final EIS is available for public inspection at the McBride Memorial Library in Berwick, Pennsylvania and the Mill Memorial Public Library in Nanticoke, Pennsylvania.

Background

On October 10, 2008, Talen Energy submitted the COL application seeking permission to construct and operate a U.S. EPR reactor at the site. In February 2015, AREVA, Inc.—the designer of the U.S. EPR—requested that the NRC staff suspend its safety review of the U.S. EPR design certification. As a result, the U.S. EPR design certification review and Bell Bend safety review are on hold until further notice.

The final environmental impact statement supports the U.S. Army Corps of Engineers review of the Bell Bend COL application for the activities under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbor Act of 1899. The Corps will issue a separate record of decision on the work proposed for Corps' review and authorization.

For additional information, please contact Scott

Appalachian Compact/Commonwealth of Pennsylvania and Midwest Compact/ State of Ohio

Ohio Scrap Metal Facilities Receive Shipments Containing LLW from Pennsylvania

By press release dated February 24, 2016, the Ohio Department of Health (DOH) announced that "[s]crap metal facilities in Canton, Mansfield and Massillon received shipments containing low-

levels of radiation." The Ohio DOH release stated that the exact source of the radiation that contaminated the scrap metal is being investigated. "The contaminated scrap metal is securely contained and does not pose a health risk to the facilities' employees or the general public," states the Ohio DOH release.

The following day, on February 25, 2016, the Pennsylvania Department of Environmental Protection (DEP) put out a press release stating that it was notified on February 23 "that recycle scrap contaminated with radioactive material was shipped from a PSC Metals, Inc. facility in Beaver Falls, PA, to two facilities in Ohio." According to the Pennsylvania DEP release, "[a] radium-226 source of unknown origin was accidentally shredded with other materials, then shipped to processing facilities in Ohio."

The U.S. Nuclear Regulatory Commission (NRC) has been notified of the incident. PCS Metals has hired a licensed decontamination provider to develop a plan for cleanup at the Beaver Falls scrap yard and the Ohio sites, as well as for safe disposal of the contaminated scrap metal.

Ohio Radiation Levels

Ohio DOH radiation protection staff was on-site at all three facilities to conduct radiation testing and to ensure planning for the safe disposal of the contaminated scrap metal. According to the Ohio DOH release, radiation surveys of contaminated scrap metal:

- delivered to PCS Metals, Inc. in Canton showed a highest reading of 70 microrem per hour, which is equivalent to less than onetenth of the radiation dose from a chest x-ray; and,
- delivered to PCS Metals, Inc. in Massillon showed a highest reading of 25 millirem per hour, which is equivalent to the radiation dose from two-and-a-half chest x-rays within one hour.

The Ohio DOH release states that contaminated scrap metal delivered to Tube City, Inc. in Mansfield was not unloaded and instead redirected to PCS Metals' Canton facility. Surveys of employee clothing, locker areas and break rooms at both PCS Metals locations did not show any radiation contamination.

Pennsylvania Radiation Levels

A team from Pennsylvania DEP's Radiation Protection Program took extensive readings at the Beaver Falls scrapyard. "Elevated readings were found on one large metal shredder and on gloves used by two workers," states the Pennsylvania DEP release. "DEP is performing additional testing to ensure that there was no skin contamination. Radium-226 can be harmful if ingested."

The Pennsylvania DEP release goes on to state that preliminary tests on the workers who operated the Beaver Falls machine showed no contamination, but that results are still pending. The Pennsylvania DEP release further states that the shredder has been isolated and that there is no indication that there is any contamination at the site, nor outside the scrapyard property.

"DEP's Radiation Protection team has locked down the scrap yard and will continue to take follow up readings and monitor the situation as needed," states the Pennsylvania DEP release. "DEP and officials in OH will oversee the recovery and cleanup of these sites."

Background

Radiation levels can be expressed as the radiation dose (unit of "rem") absorbed by living tissue during a period of time, such as an hour. The action level for radiation in the public domain in the United States is 2 millirem per hour. By comparison, a chest x-ray generates 10 millirem and a mammogram generates 70 millirem.

"As a precaution, many scrap metal processing facilities have radiation alarms to monitor and detect radiation in incoming shipments for the safety of their employees and the general public," said Gene Phillips, Chief of the Ohio DOH Bureau of Environmental Health and Radiation Protection. "Radiation can occur in scrap metal for a variety of reasons, including because the owner who sends it for recycling does not realize that the equipment contains small radioactive sources."

For additional information, please contact James Adams, Health Commissioner for the City of Canton, at (330) 438-4623; Lori Cope, Safety Service Director for the City of Mansfield, at (419) 755-9736; or, Joel Smith, Safety Services Director of the City of Massillon, at (330) 830-1702.

Central Interstate Compact/State of Louisiana

Regulatory Conference Held re Apparent Violation At River Bend Station

On April 4, 2016, staff from the U.S. Nuclear Regulatory Commission (NRC) met with officials from Entergy Operations, Inc. to discuss a preliminary inspection finding regarding the licensee's failure to adequately assess the risk associated with removing some ventilation system components from service prior to performing scheduled maintenance. The plant is located in St. Francisville, Louisiana.

Overview

The NRC conducted a Special Inspection at River Bend to review the circumstances surrounding a loss of control building ventilation in March 2015 that was caused by electrical and mechanical equipment problems. As part of that review, the NRC looked at the licensee's maintenance practices.

Inspectors determined that prior to performing maintenance on some equipment that provides air conditioning to the plant's control room, the licensee failed to adequately assess the increase in risk associated with those activities. Loss of air conditioning in the control room could cause a failure or malfunction of vital plant equipment.

No decision on the final safety significance of the finding or any additional NRC actions was made at the conference. That decision will be announced at a later time.

Background

The NRC evaluates regulatory performance at commercial nuclear plants with a color-coded process that classifies inspection findings as green, white, yellow or red in order of increasing safety significance. The NRC has preliminarily determined that the inspection finding at the River Bend Station has low to moderate (white) safety significance which may require additional inspections, regulatory actions and oversight.

The meeting at the NRC's Region IV office in Arlington, Texas was open to the public. NRC officials answered questions from the public after the business portion of the meeting.

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

Central Midwest Compact

Central Midwest Compact Commission Holds Spring Meeting

On April 26, 2016, the Central Midwest Interstate Low-Level Radioactive Waste Compact Commission held its spring meeting beginning at 9:00 am EDT / 8:00 am CDT. The meeting was held at the conference room of the Kentucky Radiation Control in Frankfort, Kentucky.

The agenda for the meeting was as follows:

- Call to Order
- Adoption or Modification of the Agenda
- Adoption of Minutes from the Previous Meeting on September 23, 2015
- Executive Session
- First Public Comment Period
- Reports
 - Chairman and Host State
 - Acknowledgement of Agreed Mandated Responsibility (Illinois 45 ILCS 140 and Kentucky 211.859)
 - Low-Level Radioactive Waste Forum (LLW Forum) Spring 2016 Meeting
 - Disused Sources Working Group (DSWG) Meeting
 - U.S. Nuclear Regulatory Commission (NRC) Regulatory Information Conference (RIC)
 - Kentucky Report
 - Maxey Flats Closure Update
 - PDGP Cleanup and Proposed Storage Cell Status
 - Technologically Enhanced Naturally

Occurring Radioactive Material (TENORM) Possible Disposal Violation

- Executive Assistant report
 - Third Quarter Reporting and Financial Status
- Discussion/Review of the Regional Management Plan
- Second Public Comment Period
- Other Business
- Next Scheduled Meeting or Announcement of Special Meeting
- Adjournment

For additional information, please contact Joseph Klinger, Chairman of the Central Midwest Interstate Low-Level Radioactive Waste Compact Commission, at (217) 836-3018 or at cmidwestcompact@yahoo.com.

Interested stakeholders may also go to the Central Midwest Interstate Low-Level Radioactive Waste Compact Commission web site at http://www.cmcompact.org.

Midwest Compact/State of Obio

Special Inspection Conducted at Perry Nuclear Plant

By press release dated February 29, 2016, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency has launched a Special Inspection into two recent events at the Perry nuclear power plant. NRC's press release affirmed that neither event affected public health or safety at the plant,

Background

On February 8, 2016, operators at the Perry nuclear power plant manually shut down the reactor when they observed an increase of the temperature in the suppression pool. The suppression pool is designed to condense steam and is also a water source for emergency cooling systems.

On February 11, 2016, while the reactor was shutdown, there was a temporary loss of power to certain plant cooling equipment. Operators were able to use a redundant system and restore power to the cooling systems.

The Perry nuclear power plant is operated by FirstEnergy Operating Co. and is located in Perry, Ohio—approximately 35 miles northeast of Cleveland.

Inspection

"Even though the two events are not related, we have questions related to the response of the equipment and operator actions," said NRC Region III Administrator Cynthia Pederson. "Our team of specialists in reactor operations and electrical equipment will review the technical details to better understand what happened." On February 29, 2016, the four-member inspection team began work and will spend time both on and off site conducting their reviews. After the inspection, a report documenting the team's findings will be made publicly available.

For additional information, please contact Viktoria Mitlyng at (630) 829-9662 or Prema Chandrathil at (630) 829-9663.

Midwest Compact/State of Wisconsin

Construction Permit to be Issued for SHINE Medical Isotope Facility

By press release dated February 25, 2016, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency has authorized its staff to issue a construction permit for a first-of-a-kind facility dedicated to medical isotope production.

The Commission, having completed a mandatory hearing, found the staff's review of the SHINE Medical Technologies, Inc. application sufficient to make the necessary safety and environmental findings. This will be the first construction permit issued for either a non-power utilization or production facility by the NRC since 1985.

Overview

Once issued, the construction permit will allow SHINE to build a facility for the production of molybdenum-99 (Mo-99) and other radioisotopes. Mo-99 is used in medicine to create technetium-99m—an isotope used in millions of diagnostic procedures annually in the United States.

The facility will be located in Janesville, Wisconsin—approximately 40 miles southeast of

Madison. The United States has not commercially produced Mo-99 since 1989. The facility will support U.S. Government efforts to establish a reliable domestic supply of this isotope.

Background

SHINE submitted its construction permit application in two parts on March 26, 2013 and May 31, 2013. The NRC staff's construction permit review process included the examination of the preliminary design and environmental impacts of the SHINE facility.

The Advisory Committee on Reactor Safeguards (ACRS) conducted an independent review of SHINE's preliminary safety analysis report and the staff's safety evaluation. 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 on issues of health physics and radiation protection.

On October 15, 2015, the ACRS recommended that the Commission issue the SHINE construction permit.

Next Steps

SHINE must submit a separate operating license application for NRC approval before it can operate the facility.

The operating license application will consist of a final safety analysis report including SHINE's final facility design, plans for operation, emergency plan, physical security plan, and technical specifications.

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

Northwest Compact/State of Utah

Utah Waste Management and Radiation Control Board Meets

In March and April 2016, the Utah Waste Management and Radiation Control Board (Board) held regularly scheduled meetings in Salt Lake City, Utah.

The meetings, which were open to the public, were held in Conference Room 1015 of the Department of Environmental Quality (DEQ) Board Room on the first floor of the Multi Agency State Office Building in Salt Lake City, Utah.

April 2016 Meeting

The following items, among others, were on the agenda for the April 2016 Board meeting:

- I. Call to Order
- II. Approval of Meeting Minutes for the March 10, 2016 Board Meeting (*Board Action Item*)
- III. Underground Storage Tanks Update
- IV. Administrative Rules
 - A. Final Adoption of Proposed Changes to Hazardous Waste Rules R315-103, R315-124, R315-260, R315-261, R315-262, R315-263 R315-264, R315-265, R315-266, R315-268, R315-270, and R315-273 and setting of an effective date (Board Action Item)
 - B. Final Adoption of the Repeal of Hazardous Waste Rules R315-1, R315-2, R315-3, R315-4, R315-5, R315-6, R315-7, R315-8, R315-9,

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R315-12, R315-13, R315-14, R315-16, and R315-50 and setting of an effective date (*Board Action Item*)

- C. Approval to Proceed with Formal Rulemaking and a 30-day Public
 Comment Period for Amendments to the Hazardous Waste Rules R315-124, R315-260, R315-261, R315-262, R315-264 and R315-273 (Board Action Item)
- D. Approval to Proceed with Formal Rulemaking and a 30-day Public Comment Period for Proposed Changes to Radiation Control Rules R313-19 and R313-22 to Incorporate Changes Requested by the Nuclear Regulatory Commission (NRC) (Board Action Item)
- V. Low-Level Radioactive Waste Section
 - A. EnergySolutions' Request for a Site-Specific Treatment Variance from the Hazardous Waste Management Rules—i.e., EnergySolutions Seeks Authorization to Dispose of One, 5-Gallon Bucket of Spent Lithium-Thionyl Chloride Batteries Following Macroencapsulation (Board Action Item)
 - B. Energy*Solutions*' Request for a Site-Specific Treatment Variance from the Hazardous Waste Management Rules—i.e., Energy*Solutions* Seeks Authorization to Dispose of High Concentration Arsenic Waste Following Macroencapsulation (*Board Action Item*)

- VI. Director's Report
- VII. Other Business
 - A. Miscellaneous Information Item
 - B. Scheduling of Next Board Meeting

VIII. Adjourn

March 2016 Meeting

The following items, among others, were on the agenda for the March 2016 Board meeting:

- I. Call to Order
- II. Approval of Meeting Minutes for the January 14, 2016 Board Meeting (*Board Action Item*)
- III. Underground Storage Tanks Update
- IV. Administrative Rules
 - A. Approve for Filing of Five-Year Review of Radiation Control Rule R313-26 (*Board Action Item*)
 - B. Approve for Filing of Five-Year Review of Hazardous Waste Rules R315-15, R315-17, R315-101, R315-102 (*Board Action Item*)
 - C. Final Adoption of R313-15, R313-19 and R313-24 to Incorporate Changes to the Federal Decommissioning Planning Regulations Promulgated by the U.S. Nuclear Regulatory Commission (NRC) on June 17, 2011 at 76 Federal Register 35,512 (Board Action Item)
 - D. Approval of a Change in a Proposed Rule to R313-22-35 to Incorporate

Comments Made by NRC (Board Action Item)

- E. Approval to Proceed with Formal Rulemaking and 30-Day Public Comment Period for Proposed Changes to Solid Waste Rule R315-310 and to Adopt Solid Waste Rule R315-319 (*Board Action Item*)
- V. Low-Level Radioactive Waste Section
 - A. EnergySolutions' Request for a Site-Specific Treatment Variance from the Hazardous Waste Management Rules—i.e., EnergySolutions Seeks Authorization to Dispose of One, 5-Gallon Bucket of Spent LithiumThionyl Chloride Batteries Following Macroencapsulation (Information Item Only)
 - B. EnergySolutions' Request for a Site-Specific Treatment Variance from the Hazardous Waste Management Rules—i.e., EnergySolutions Seeks Authorization to Dispose of High Concentration Arsenic Waste Following Macroencapsulation (Information Item Only)
- VI. Legislative Update
- VII. Other Business
 - A. Miscellaneous Information Item
 - B. Scheduling of Next Board Meeting
- VIII. Adjourn

Some of the Board members participated in the March 2016 meeting telephonically.

Background

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

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

Copies of the Utah Waste Management and Radiation Control Board meeting agendas and packet information can be found at http:// www.deq.utah.gov/boards/waste/meetings.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.

Northwest Compact/State of Idaho

Regulatory Conference Held re Apparent Violations at International Isotopes

On May 3, 2016, staff from the U.S. Nuclear Regulatory Commission (NRC) met with officials from International Isotopes, Inc. to discuss four apparent violations identified by NRC inspectors related to an incident in which a worker at the company's facility in Idaho Falls, Idaho, received an unplanned radiation exposure.

Overview

The purpose of the pre-decisional enforcement conference was to discuss four apparent violations identified by the NRC including

- failure to control the radiation dose to a worker within NRC regulatory limits;
- failure to have adequate procedures in place that assured a safety evaluation was completed for a proposed use of radioactive material and approved by the radiation safety committee prior to its use;
- failure to obtain prior NRC approval for activities that had not been documented, reviewed, and approved by the company's radiation safety committee; and,
- failure to stop work as required by procedure when a worker's electronic dosimeter alarmed.

The apparent violations are discussed in an inspection report that is available at http://www.nrc.gov/docs/ML1602/ML16028A493.pdf.

No decision on the final safety significance of the violations or any additional NRC actions was made at the meeting. That decision will be announced at a later time.

Background

On August 20, 2015, a worker was preparing to transfer a Cobalt-60 source from a storage cask to a therapy device when he received an unplanned exposure. Although the radiation dose to the worker exceeded NRC limits, he is not expected to suffer any adverse health consequences. The NRC dispatched an inspector to the site the following day to monitor the licensee's response to the event and follow-up actions.

The meeting at the NRC's Region IV office in Arlington, Texas was open to public observation. NRC officials were available to answer questions from the public after the business portion of the conference.

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

Utah Adopts Proposed Hazardous Waste Rules

At a meeting on April 14, 2016, the Utah Waste Management and Radiation Control Board (Board) adopted proposed hazardous waste rules as published in the Utah Bulletin on February 1, 2016. At the same meeting, the Board adopted the repeal of the hazardous waste rules as published in the Utah Bulletin on February 1, 2016.

Overview

In response to comments received during the public comment period and to a review of the rules proposed in the comment period, modifications to rules R315-124, R315-260, R315-261, R315-262, R315-264, and R315-273 were proposed and the Board approved the publication of the modifications in the Utah Bulletin and commencement of a 30 public comment period. The proposed rule modifications were subsequently published in the Utah Bulletin May 1, 2016.

The public comment period starts on May 1, 2016 and ends on May 31, 2016.

Background

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

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

The rules can be viewed at http:// www.deq.utah.gov/Laws_Rules/dshw/ ProposedHWRules.htm.

For additional information, please contact Ralph Bohn, Manager of the Planning and Technical Support Section, at (801) 536-0212 or at rbohn@utah.gov.

Utah Proposes Solid Waste Rule Change

At a meeting on March 10, 2016, the Utah Waste Management and Radiation Control Board (Board) approved the publication of proposed changes to rules R315-310 and R315-319 in the Utah Bulletin and the commencement of a 30-day public comment period. The proposed rule changes were subsequently published in the Utah Bulletin on April 15, 2016. The comment period will end May 16, 2016.

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

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

The rules can be viewed at <u>http://</u> <u>www.deq.utah.gov/Laws_Rules/dshw/</u> <u>ProposedSWRules.htm.</u>

For additional information, please contact Ralph Bohn, Manager of the Planning and Technical Support Section, at (801) 536-0212 or at rbohn@utah.gov. Northwest Compact/State of Wyoming

Comment Sought re Environmental Review for Expansion of Ross Uranium Recovery Facility

By press release dated March 8, 2016, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency is asking the public for input on the scope of the environmental issues to be covered in its review of Strata Energy Inc.'s application to expand the Ross in situ uranium recovery facility in Crook County, Wyoming. The NRC's environmental review will be documented in a Supplemental Environmental Impact Statement (EIS).

The Ross uranium recovery facility is located 27 miles northeast of Gillette, Wyoming.

Overview

In early 2015, Strata applied to the NRC for approval to build and operate additional uranium recovery wells in the Kendrick expansion area, which covers approximately 7,800 acres adjacent to the Ross uranium recovery facility. The agency published a notice of receipt of the license application and an opportunity to request a hearing in the *Federal Register* on February 29, 2016.

The supplemental EIS will reference both the NRC's generic EIS for in situ uranium recovery and the supplemental EIS for the Ross uranium recovery facility. It will examine the potential environmental impacts of the proposed construction, operation, decommissioning and aquifer restoration of the Kendrick expansion area.

Background

In April 2014, the NRC granted Strata a license to construct and operate the Ross uranium recovery facility. The in situ process pumps a native groundwater solution through a series of injection wells into a sandstone ore body, then extracts the solution through a series of a production wells. The solution uses oxidants (such as oxygen or hydrogen peroxide) and other chemical compounds (such as sodium bicarbonate) to mobilize uranium contained within the sandstone. After extraction, the solution would be transported through pipes to the Ross processing plant. Strata does not propose to construct or operate additional processing plants at Kendrick. Uranium removed from the extracted solution can be made into "yellowcake," a form of uranium that can be further processed into fuel pellets for nuclear reactors.

NRC accepted written comments on Docket ID NRC-2011-0148 through April 22, 2016.

For additional information, please contact

Southeast Compact Commission/State of Tennessee

Chilling Effect Letter Issued to TVA re Watts Bar Nuclear Plant Work Environment Issues

By press release dated March 24, 2016, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency has issued a chilling effect letter to the Tennessee Valley Authority after determining that a "chilled work environment" exists within the operations staff at the Watts Bar nuclear power plant. The Watts Bar nuclear power plant is located near Spring City, Tennessee—approximately 60 miles southwest of Knoxville, Tennessee.

Overview

An NRC review into the Watts Bar work environment found that some operations employees may not have felt free to raise safety concerns, and some licensed operators may have been unduly influenced and directed by sources external to the control room.

"While we believe TVA management understands these issues, the chilling effect letter documents the NRC concerns and our expectations that TVA fully address them and ensure that all plant employees feel free to raise any safety problems," said NRC Region II Administrator Cathy Haney.

TVA officials were required to respond to the letter within 30 days with a plan describing how the work environment concerns will be addressed. About two weeks after the TVA plan is received, the NRC will schedule a public meeting with TVA to discuss its plan as well as NRC monitoring and inspection of corrective actions.

Background

The NRC began a review into the work environment at the Watts Bar plant in late 2015 and found that some operations employees did not feel free to raise safety concerns. In addition, there were indications that licensed operators may have received undue influence and direction from TVA staff outside the control room. While the work environment issues did not lead to any events that affected worker or public safety, the NRC reviewed some actions to determine if any NRC regulations were violated.

On March 22, 2016, the NRC held a meeting with TVA officials in Atlanta, Georgia to discuss the agency's concerns and TVA's corrective actions. During the meeting, which was open to the public, NRC discussed with TVA its review of the work

environment at the plant and TVA officials discussed steps they have taken or are planning to address the issues.

For additional information, please contact Roger Hannah at (404) 997-4417 or Joey Ledford at (404) 997-4416.

Southwestern Compact

Southwestern Compact Commission Hosts 72nd Meeting

On April 7, 2016, the Southwestern Low-Level Radioactive Waste Commission hosted its 72nd meeting beginning at 2:00 pm PDT at the Marriott Courtyard Hotel in San Diego, California.

The following topics, among others, were on the meeting agenda:

- Call to Order
- Roll Call
- Welcome and Introductions Introduce New Commissioner from South Dakota
- Statement Regarding Due Notice of Meeting
- Reports, Status and/or Activity
 - Commission Chair
 - Executive Director
 - Licensing Agency
 - Party States
- Exportation
 - Ratification of Approved Petitions
- Update on Compact Correspondence

- Thermo Fischer Update on Sealed Sources
- Report and Update from the Committee for Export Issues (re: Sealed Sources – Qal Tek Tour)
- Amend Approved Budget
- Public Comment
- Future Agenda Items
- Next Meeting Date and Location (October 7, 2016 at Hyatt Regency in Sacramento, California)
- Adjournment

Members of the public were invited to attend the meeting and comment on specific agenda items as the Commission considered them. The total public comment time on each agenda item was limited to 15 minutes. Written material was also accepted. A 15-minute public comment period was provided near the end of the meeting, at which time members of the public were invited to bring before the Commission issues relating to low-level radioactive waste, but which were not on the agenda.

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

Texas Compact Commission Holds April 2016 Meeting

On April 7, 2016, the Texas Low-Level Radioactive Waste Disposal Compact Commission (Texas Compact Commission) held a regularly scheduled meeting. The meeting, which began at 9:30 a.m. CDT, was held in Andrews County, Texas at the Business and Technology Center.

Agenda

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

- Call to Order
- Roll Call and Determination of Quorum
- Introduction of Commissioners, Elected Officials and Press
- Public Comment
- Discussions and Possible Action on Conditions for Import Associated with Thermo Process Instruments Import Agreement
- Receive Reports from Waste Control Specialists LLC (WCS) About Recent Site Operations and Any Other Matter WCS Wishes To Bring to the Attention of the Texas Compact Commission
- Receive Reports from Texas Compact Commission Committees Including the Rules Committee (as Chaired by Commissioner Morris) and the Capacity Committee (as Chaired by Commissioner Weber)

- Discussion and Possible Action to Authorize the Chair to Execute a Contract for an Auditor to Conduct Annual Audits Each Year as Required by Article III, Section 3.04(5) of the Texas Compact Commission Consent Act
- Discussion and Possible Action to Authorize the Chair not to Exceed \$25,000 to Contract with a Person to Provide Technical and Support Services for the Texas Compact Commission from May 1, 2016 through August 31, 2016
- Discussion and Possible Action to Authorize the Chair to Acquire Office Space on Behalf of the Texas Compact Commission in Austin, Texas in Order to Meet the Requirement of Article III, Section 3.04(3) of the Texas Compact Commission Consent Act that the Commission be Located in the Capitol City of the Host State
- Chairman's Report on Texas Compact Commission Activities Including Reporting on Fiscal Matters to be Taken by the Compact and Addressing Personnel Matters
- 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 of Future Texas Compact Commission Meetings in 2016 and 2017
- ♦ Adjourn

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 Consulting Supervisory Director Leigh Ing at (512) 305-8941 or at leigh.ing@tllrwdcc.org.

U.S. Department of the Army (Army) and U.S. Nuclear Regulatory Commission (NRC)

Possession License Issued to Army for Depleted Uranium at Multiple Installations

In late March 2016, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency has added 15 installations to a license authorizing the U.S. Army to possess depleted uranium (DU). The original license, issued in October 2013, applied to two sites in Hawaii. The Army will use the same programs for environmental monitoring, radiation safety and physical security at all sites.

Overview

The DU comes from "spotting rounds" used with the Davy Crockett weapons system to assist with targeting accuracy. The Army trained with this system at the sites in the 1960s.

The license allows the Army to possess and manage up to 12,567 pounds of DU and limits the amount at each site. It requires the Army to comply with NRC regulations and standards for protecting the public and the environment from radiation, and is subject to NRC inspections and periodic reviews. The license does not authorize the Army to use the DU or decommission the sites without additional review and approval by the NRC.

Background

In 1978, a license allowing the Army to

manufacture and distribute the DU spotting rounds issued by the NRC's predecessor (the Atomic Energy Commission) expired at the Army's request. Under the earlier license, the Army distributed the spotting rounds to a number of Army installations for testing, training and deployment. Each round contained about six ounces of DU.

In November 2006, the Army told the NRC that it had discovered DU fragments at the Schofield Barracks on the island of Oahu. Following that discovery, the Army reviewed old records and determined the Davy Crockett system was tested at other installations. The Army has enough DU at these sites that, under the Atomic Energy Act and NRC regulations, it is required to have a possession license.

Amendment License

The initial license applied to Schofield Barracks on the island of Oahu and the Pohakuloa Training Area on the island of Hawaii.

The amendment license now also applies to

- Forts Benning and Gordon (Georgia);
- Forts Campbell and Knox (Kentucky);
- Fort Carson (Colorado);
- Fort Hood (Texas);
- Joint Base Lewis-McChord/Yakima Training Center (Washington);
- Fort Bragg (North Carolina);
- Fort Polk (Louisiana);
- Fort Sill (Oklahoma);
- Fort Jackson (South Carolina);
- Fort Hunter Liggett (California);
- Fort Wainwright (Alaska);
- Joint Base McGuire-Dix-Lakehurst (New Jersey); and,
- Fort Riley (Kansas).

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

U.S. Department of Commerce's International Trade Administration (ITA)

Commerce Department Holds Global Nuclear Energy Financing Workshop

On March 11, 2016, the U.S. Department of Commerce' International Trade Administration (ITA) held a Global Nuclear Energy Financing Workshop from 9:00 a.m. to 3:00 p.m.

The workshop was held at the U.S. Department of Commerce's Auditorium located at 1401 Constitution Ave, NW in Washington, DC.

Overview

The workshop was a recommendation of the Commerce Department's Civil Nuclear Trade Advisory Committee (CINTAC)—a federal advisory committee that provides guidance to the Secretary of Commerce on civil nuclear trade policy issues. It is a follow-on effort to an initial financing workshop that ITA organized in April 2012.

The workshop aimed to bring together industry, U.S. Government (both Executive and Legislative branches), and the financial community to discuss the challenges associated with financing nuclear power plants and to explore innovative solutions.

Agenda

The following was the agenda for the workshop:

9:05 – 9:10 a.m. Welcome Remarks <u>Speaker</u>: Michael Wautlet, White House Director for Nuclear Energy Policy, National Security Council

> Discussion about the policy issues and strategic imperatives associated with U.S. nuclear exports

- 9:10 9:20 a.m. Introductory Remarks <u>Speaker</u>: Bruce Andrews, Deputy Secretary of Commerce, U.S. Department of Commerce
 - Overview of the Commerce Department's role in promoting U.S nuclear exports

9:20 – 10:00 a.m. Market Status: Global & Domestic

<u>Speaker</u>: Walter Howes, Managing Partner, Verdigris Capital

- Assessment of international developments in the nuclear industry, including opportunities and challenges faced by U.S. companies
- Importance of financing and the challenges of state-sponsored export initiatives
- How developments in the U.S. domestic market inform U.S. export efforts

10:00 – 10:30 a.m. U.S. Government Role in Nuclear Financing

<u>Speaker</u>: Michael Whalen, Vice President, Structured Finance Division,

U.S. Export-Import Bank of the United States

• Overview of U.S. financing tools to support NPP development and U.S. civil nuclear exports.

10:30 – 11:00 a.m. Break

11:00 – 12:00 p.m. Nuclear Financing <u>Speaker</u>: Paul Murphy, Managing Director, Gowlings WLG

• Overview of U.S. financing tools to support NPP development and U.S. civil nuclear exports.

12:00 – 1:00 p.m. Lunch & Keynote: Capitol Hill Perspective

Speaker: to be confirmed

1:00 – 2:00 p.m. Stakeholder Panel: Views from the Civil Nuclear Industry

<u>Moderator</u>: Gary Wolski, Vice President, Curtiss-Wright

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Panelists:

Graham Cable, Vice President, Westinghouse Electric Company John Hopkins, CEO, NuScale Arthur Lembo, President, Power, AECOM David Sledzik, Senior Vice President, GE-Hitachi Nuclear Energy

Ty Troutman, President, Bechtel Power

 Panelists will address the view of the U.S. nuclear export community, taking stock of current trends, challenges, and opportunities. With a cross-section of the export community, a variety of perspectives will be offered as panelists assess current and future conditions, while considering how U.S. Government support can increase the chances for American exporters to compete successfully against stateowned enterprises.

2:00 – 2:50 p.m. Panel: Views from the Financial Community

<u>Moderator</u>: David Blee, Executive Director, Nuclear Infrastructure Council

Panelists:

Walter Howes, Managing Partner, Verdigris Capital

Edward Kee, President, Nuclear Economics Consulting Group

Paul Murphy, Managing Director, Gowlings WLG

Kevin Plunkett, Executive Director, J.P. Morgan Securities LLC

Barclays Capital (speaker to be confirmed) Greengate (speaker to be confirmed)

 Panel will discuss financing challenges and opportunities for creative solutions to such challenges. Considering both market conditions and industry track records, panelists will assess the role financing can play in overall project development and export promotion. 2:50 – 3:00 p.m. Concluding Remarks Speaker: Chris Tye, President, Fluor Power

• Summary of the day's discussions, and outline of next steps to be taken by the Department of Commerce to further the discussions and ideas from the Workshop.

(Continued from page 1)

the past decade. As a result, NRC staff recently conducted a scoping study to determine whether financial planning requirements for decommissioning and end-of-life management for some radioactive byproduct material, particularly radioactive sealed sources, are necessary. The staff conducted its analysis based on a review of the NRC regulations and guidance, relevant internal and external reports, and stakeholder feedback collected through the scoping study.

Based on its analysis, NRC staff recommends that the financial assurance requirements in 10 CFR 30.35 should be expanded to include all byproduct material Category 1 and 2 radioactive sealed sources that are tracked in the National Source Tracking System (NSTS). Per recent Commission direction, the staff plans to develop a rulemaking plan SECY paper to propose initiating rulemaking, which will also include a discussion of other regulatory options. The staff plans to provide the SECY paper to the Commission in the fourth quarter of FY 2016.

Background

NRC regulations in Title 10 CFR 30.35, *Financial Assurance and Recordkeeping for Decommissioning*, require a fixed dollar amount of financial assurance or a Decommissioning Funding Plan (DFP) for licensees possessing byproduct material with a half-life greater than 120 days and at activity levels above certain thresholds. Although 10 CFR 30.35 provides activity thresholds for both unsealed and sealed byproduct material, the thresholds that require

financial assurance for sealed radioactive material are seven orders of magnitude higher than for unsealed material. As a result, many licensees that possess byproduct material radioactive sealed sources, including many Category 1 and 2 sources, are not required to provide financial assurance for decommissioning. For licensees possessing multiple radioactive sealed sources subject to the requirements in 10 CFR 30.35, the "sum of fractions" rule applies when determining whether financial assurance is required. If financial assurance is required, it is intended to support site decommissioning, not necessarily the disposition of an individual radioactive sealed source that has become disused or unwanted.

The Energy Policy Act of 2005 created the **Radiation Source Protection and Security Task** Force (Task Force) to evaluate the status of various factors affecting the security of Category 1 and 2 sealed sources and to provide recommendations to the President and Congress not less than every 4 years. In its 2006 report, the Task Force recommended that the NRC "...evaluate the financial assurance required for possession of Category 1 and 2 radioactive sources to assure that funding is available for final disposition of the sources." In addition, financial assurance scoping for byproduct material was identified as one of seven high priorities in the NRC staff's 2007 "Strategic Assessment of the U.S. Nuclear Regulatory Commission's Low-Level Radioactive Waste Regulatory Program."

To address the financial assurance recommendation in the 2006 Task Force Report, the NRC established an Interagency Working Group (IWG) on Financial Assurance for Disposition of Category 1, 2, and 3 Radioactive Sealed Sources in December 2008. In March 2010, the IWG issued its final report, which contained numerous recommendations including that the NRC develop risk-based financial assurance requirements and lower financial assurance thresholds in 10 CFR 30.35 to capture all Category 1, 2, and 3 radioactive sealed sources. The 2010 Task Force Report summarized the recommendations of the IWG, and further stated that the NRC would have to determine whether and when to pursue rulemaking to implement these regulatory changes.

In its 2014 report, the Task Force found that significant progress has been made to address the commercial sealed source management and disposal challenges identified in the 2006 and 2010 reports. Although disposal options for many sealed sources are now available, the 2014 report acknowledged that there are currently few incentives for licensees to dispose of their disused sealed sources in a timely fashion. The report recommended that the NRC, "...evaluate the need for sealed source licensees to address the eventual disposition/disposal costs of Category 1 and 2 quantities of radioactive sources through source disposition/disposal financial planning or other mechanisms." The report stated that " [d]isposition costs should include the cost of packaging, transport, and disposal (when available) of these sources."

Recommendations for the NRC related to financial assurance were also provided in a March 2014 report issued by the Disused Sources Working Group (DSWG) of the Low-Level Radioactive Waste Forum (LLW Forum). The DSWG report cites numerous factors believed to have contributed to the large number of disused radioactive sources that remain in storage including, among other things, a lack of financial incentives for disused sources to be dispositioned in a timely manner, underutilization of opportunities for recycling and reuse, and the fact that the full life-cycle costs of managing and ultimately disposing of sealed sources are not reflected in the purchase price. The DSWG report recommended that the NRC, "...develop robust financial assurance requirements for all licensees with sources that pose a threat to national security (Categories 1 through 3)."

On September 18, 2014, the Commission was briefed on the management of low-level

radioactive waste, high-level radioactive waste, and spent nuclear fuel. NRC staff noted that, given recent interest in financial planning for radioactive sealed source disposition as expressed in the Task Force and DSWG reports, it would be timely for the staff to revisit the issue. In response, in SRM-M140918, the Commission directed the staff to "...provide the Commission with the results of the byproduct financial scoping study and provide recommendations on next steps."

Stakeholder Outreach

On August 3, 2015, in order to help solicit broad stakeholder input, NRC staff issued a Federal Register notice (80 Federal Register 46,057) announcing that staff was conducting a financial scoping study to determine if financial planning requirements for decommissioning and end-of-life management for some radioactive byproduct material are necessary. The Federal Register notice acknowledged that recent reports addressing this topic had been generated by a limited group of federal and state stakeholders, and that the views and perspectives of important external stakeholders such as industry, user groups, and current licensees were needed to fully inform the scoping study and any subsequent NRC staff recommendations. In addition, on October 7, 2015, NRC staff convened a public meeting and webinar at the agency's headquarters to obtain stakeholder input on the scoping study. Meeting participants included representatives of the DOE/NNSA, the National Institutes of Health (NIH), the LLW Forum, several state regulatory agencies, the nuclear industry, public advocacy groups, members of the public, and NRC staff.

Staff also conducted targeted outreach activities to certain stakeholder groups with a known interest in this matter. For instance, on August 21, 2015, staff issued a letter to State Liaison Officers of all Agreement and Non-Agreement States to notify them of the staff's scoping study and the associated *Federal Register* notice. Throughout 2015, staff also attended meetings of the

LLW Forum, the Conference of Radiation Control Program Directors (CRCPD), the Health Physics Society (HPS), and the Task Force to raise awareness of the scoping study and the *Federal Register* notice. In addition, staff reached out to other stakeholders including the Organization of Agreement States (OAS), the Nuclear Energy Institute (NEI) and other industry representatives, DOE/NNSA, radioactive materials user groups, and prior attendees of certain NRC public meetings with a related focus.

Eleven commenters responded to the *Federal* Register notice with significant sets of comments on a variety of relevant issues, which are summarized by topical area in the enclosure to SECY-16-0046 titled, Financial Planning for *Radioactive Byproduct Material—Scoping Report.* Most commenters were generally supportive of some type of increased financial planning requirements for radioactive sealed sources, although opinions differed regarding the range of sources that should be covered, the appropriate time frame for disposition of unwanted sources, whether or not generallylicensed sources should be subject to financial planning, and what types of financial planning mechanisms would be appropriate under various licensing circumstances.

To provide additional context on the current environment for radioactive sealed source disposition, the DOE/NNSA shared information with the NRC regarding its Off-Site Source Recovery Project (OSRP) and the Source Collection and Threat Reduction (SCATR) Program, which is funded by DOE/NNSA and administered by CRCPD. A summary of the information and associated recommendations from the DOE/NNSA is provided in a second enclosure to SECY-16-0046 that was not publicly released, although the OSRP and SCATR programs are described further in the enclosure that is publicly available.

Relationship of Financial Assurance to Safety and Security

Numerous studies have noted the potential increased safety and security risks that may arise when disused sources are not promptly dispositioned. Indeed, guidance issued by the International Atomic Energy Agency (IAEA) states as follows:

Disused sources represent the largest pool of vulnerable and potential orphan sources. History has shown that many accidents involving orphan sources come about because sources that are no longer in use are eventually forgotten, with subsequent loss of control years later. To this end, it is beneficial from both a safety and security viewpoint for all disused sources to be identified and to undergo proper disposition.

Furthermore, Paragraph 22(b) of the IAEA's *Code of Conduct on the Safety and Security of Radioactive Sources* recommends that every State should confirm that its regulatory body "ensures that arrangements are made for the safe management and secure protection of radioactive sources, including financial provisions where appropriate, once they have become disused."

A 2005 report by the U.S. Government Accountability Office (GAO) stated that, "...[a]lthough NRC does not place time limits on the storage of radioactive materials as long as they are safe and secure, greater quantities and longer periods of storage, particularly of unwanted sealed radiological sources, will likely increase safety and security risks." The GAO report also provided an example where DOE incurred costs of approximately \$581,000 to recover and dispose of sources that had accumulated at a bankrupt firm in Pennsylvania.

The 2006 Task Force report noted that some NRC licensees "...may not have sufficient funds set aside to cover the costs of disposal or other appropriate disposition, potentially resulting in

prolonged storage and possible misuse or abandonment." The report also stated that high disposal costs might prompt licensees to delay disposal either by choice or economic necessity. The 2010 Task Force report reiterated that, "...while secure storage is a temporary measure, the longer sources remain disused or unwanted the chances increase that they will become unsecured or abandoned." This position was repeated in the 2014 Task Force report, which further stated that financial assurance requirements, "...are likely to decrease the time that commercial sealed sources remain in storage because the funds necessary for source disposal will be immediately or quickly available."

Comments provided by DOE/NNSA in response to the staff's Federal Register notice acknowledge the safety and security concerns associated with disused sources, noting that increased government involvement in efforts to address radioactive sealed source management and disposal is not sustainable. The DOE/NNSA states that additional financial planning requirements could help facilitate the use of available commercial disposal options, thereby reducing the funding required for programs such as the OSRP and SCATR. In FY 2015, the SCATR program facilitated the disposal of 6,074 radioactive sealed sources (primarily Category 3 and lower sources for which commercial disposal is available), while the OSRP recovered 2.305 radioactive sealed sources.

Based on the reports cited above, SECY-16-0046 states, "there is at least some potential for increased safety and security risks in the absence of adequate financial planning for ... [radioactive sealed source] disposition." SECY-16-0046 continues that, "[i]n any event, the current role (and associated costs) of the DOE/NNSA in providing for recovery and disposition of some ... [radioactive sealed sources], particularly those with commercial disposal options, will likely need to transition at some point to either private industry or other Federal and state entities."

Scoping Study Results

In addition to considering stakeholder feedback, NRC staff reviewed current agency regulations and guidance in the area of financial assurance, relevant internal and external reports, and information obtained through discussions with subject matter experts. The publicly available Enclosure 1 to SECY-16-0046 summarizes this information and provides a discussion of numerous technical issues important to byproduct material financial planning, as well as other issues such as relevant national and international activities, compatibility with Agreement State requirements, and implementation considerations.

After initial consideration, unsealed byproduct material was not evaluated further in the NRC staff's scoping study, as staff concluded that—due to the significantly lower threshold for unsealed byproduct material financial assurance in 10 CFR 30.35—these requirements did not need to be revisited at this time. In addition, stakeholder feedback as well as the recommendations of internal and external reports reviewed by the staff focused almost exclusively on financial assurance for radioactive sealed sources.

In SECY-16-0046, NRC staff states that end-oflife costs for byproduct material radioactive sealed sources can be significant and unpredictable. The costs associated with end-oflife disposition may include interim storage, packaging and conditioning, transportation, and costs associated with the selected disposition option. Disposition may include options such as return to the manufacturer or supplier for reuse or recycling, transfer to another licensee, disposal as low-level radioactive waste, or (for some short half-life material such as Iridium-192 sources) decay in storage for subsequent management and disposal. While the overall cost of disposition may be substantial and subject to considerable uncertainty, licensees are responsible for the safe and secure end-of-life management of their licensed material regardless of cost.

SECY-16-0046 acknowledges that NRC regulations do not require licensees to declare when radioactive sealed sources in their possession are unwanted or to provide for prompt disposition. If a licensee has not anticipated and planned for the cost of disposition, this may represent a significant financial burden. For some radioactive sealed sources, disposal may not be a viable option for a variety of reasons, including lack of access to a low-level radioactive waste disposal facility that can accept the material or a lack of a certified shipping container to transport the material. As a result, licensees may choose indefinite long-term secure storage as the most practical management option. SECY-16-0046 states that NRC "staff recognize that, while early financial planning (ideally prior to acquisition of a ... [radioactive sealed source]) is a best management practice and should facilitate timely, safe and secure disposition, long-term storage of ... [radioactive sealed sources] in accordance with applicable NRC requirements is also an acceptable management practice."

As part of the byproduct material financial scoping study, NRC staff reviewed the current financial assurance requirements for Category 1 and 2 radioactive sealed sources that are tracked in the NSTS, which tracks more than 76,000 Category 1 and 2 radioactive sealed sources held by approximately 1,400 NRC and Agreement State licensees. According to SECY-16-0046, although more than 99 percent of radioactive sealed sources tracked in the NSTS are byproduct material, a small percentage are special nuclear material or source material. Under NRC regulations, of the 17 byproduct material radionuclides tracked in the NSTS, a fixed dollar amount financial assurance of \$113,000 would be required for 10 of these radionuclides at the threshold level for a Category 1 source. No financial assurance would be required for seven of the byproduct material radionuclides tracked in the NSTS at the threshold level for a Category 1 source (including Cobalt-60 and Cesium-137, which are two of the most widely used radioactive sealed sources), nor for any of the byproduct

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material radionuclides tracked in the NSTS at the threshold level for a Category 2 source.

"After conducting its scoping study, the staff agrees with the assessments of numerous state and Federal partners, organizations such as OAS and CRCPD, the Task Force, and other commenters that providing financial assurance for disposition of ... [radioactive sealed sources] supports safety and security goals, helps facilitate timely disposition of disused ... [radioactive sealed sources], and ensures that the full cost of using these ... [radioactive sealed sources] is appropriately considered by licensees," states SECY-16-0046. "Financial assurance requirements ensure that licensees have anticipated and are prepared to address disposition costs when they arise."

In considering whether to expand the existing financial assurance requirements in 10 CFR 30.35, SECY-16-0046 states that the staff believes it is appropriate to initially focus on the byproduct material Category 1 and 2 radioactive sealed sources tracked in the NSTS because

- Category 1 and 2 sources have the highest risk significance and are generally the most likely radioactive sealed sources to pose disposition challenges;
- as a group, disposition costs are likely to be higher for Category 1 and 2 sources compared to other source categories;
- requiring financial assurance for byproduct material Category 1 and 2 radioactive sealed sources may help reduce the use of long-term storage as a management option, supporting Commission policy that disposal is preferred to storage;
- requiring financial assurance for these sources should reduce the likelihood that some licensees will be unprepared for end-of-life disposition costs due to limited financial

resources or other unforeseen circumstances; and,

 requiring financial assurance would help ensure that disposition costs related to the use of byproduct material Category 1 and 2 radioactive sealed sources are borne by those who receive the associated economic benefits, reducing the need for programs such as the OSRP to be administered by DOE/NNSA.

Based on its analysis, SECY-16-0046 states that the staff believes that the financial assurance requirements in 10 CFR 30.35 should be expanded to include all byproduct material Category 1 and 2 radioactive sealed sources tracked in the NSTS. The staff plans to develop a rulemaking plan SECY paper to propose initiating rulemaking.

SECY-16-0046 states that NRC staff considered whether to further evaluate rulemaking to expand financial assurance requirements to other categories of radioactive sealed sources such as Category 3 (and below) sources, as suggested by several stakeholders. However, staff elected to focus on byproduct material Category 1 and 2 radioactive sealed sources at this time. "If rulemaking were to be implemented, developing the necessary regulatory infrastructure to require financial assurance for all of the byproduct material Category 1 and 2 radioactive sealed sources tracked in the NSTS would be a complex and resource intensive task," states SECY-16-0046. "Staff believes that the most prudent use of Federal and state resources would be to focus on these ... [radioactive sealed sources], which present the highest risk." However, SECY-16-0046 acknowledges that experience in developing and implementing requirements for byproduct material Category 1 and 2 radioactive sealed sources could be used to more effectively and efficiently develop similar requirements for lower category sources in the future, if warranted. In addition, SECY-16-0046 notes that Agreement States could continue to implement more comprehensive financial

assurance requirements for radioactive sealed sources, including Category 3 and lower sources, based on current compatibility categories with NRC financial assurance requirements.

SECY-16-0046 specifically states that any proposed expansion to the financial assurance requirements in 10 CFR 30.35 would not apply to production and utilization facility licensees which are licensed under 10 CFR Part 50. These licensees are already required to demonstrate financial assurance for construction, operation, and decommissioning, including the disposal of any byproduct material Category 1 and 2 radioactive sealed sources possessed under their license.

Next Steps

SECY-16-0046 states that, based on its analysis, NRC staff believes that the financial assurance requirements in 10 CFR 30.35 should be expanded to include all byproduct material Category 1 and 2 radioactive sealed sources tracked in the NSTS. Accordingly, staff plans to develop a rulemaking plan SECY paper per the recent direction in SRM-SECY-15-0129, "Commission Involvement in Early Stages of Rulemaking," to propose initiating rulemaking.

"Per the rulemaking plan template, the SECY paper will include a discussion of the estimated schedule for rulemaking, preliminary priority, relationship to the NRC's Strategic Plan, costs and benefits, cumulative effects of regulation, and Agreement State considerations, among other topics," states SECY-16-0046. "The SECY paper will also include a discussion of other regulatory options."

For additional information, please contact Ryan Whited at (301) 415-1154 or at Ryan.Whited@nrc.gov or James Shaffner at (301) 415-5496 or at James.Shaffner@nrc.gov.

NRC Issues Notice re Revision and Leakage Rate Testing Considerations

On March 28, 2016, the U.S. Nuclear Regulatory Commission issued Information Notice (IN) 2016-04, ANSI N14.5-2014 Revision and Leakage Rate Testing Considerations to

- all registered users of a Type B transportation package under Title 10, "Energy," of the Code of Federal Regulations (10 CFR) Part 71, "Packaging and Transportation of Radioactive Material;"
- all holders of or applicants for a Type B transportation package certificate of compliance (CoC) under 10 CFR Part 71; and,
- all holders of or applicants for: (1) a spent fuel storage cask CoC under 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste," and (2) a general or site-specific independent spent fuel storage installation (ISFSI) license under 10 CFR Part 72.

IN 2016-04 is intended to inform addressees of:

- the 2014 revision to the American National Standards Institute (ANSI) N14.5, "American National Standard for Radioactive Materials— Leakage Tests on Packages for Shipment," (ANSI N14.5-2014); and,
- specific leakage rate testing considerations.

The NRC expects that recipients will review the information for applicability to their facilities and consider actions, as appropriate. However, suggestions contained in IN 2016-04 are not NRC requirements; therefore, no specific action or written response is required.

IN 2016-04 has been posted to the NRC's Generic Communications web page under accession number ML16063A287.

Background

NRC participated in the revision of the recently published ANSI N14.5-2014, which is the current consensus standard that supersedes the 1997 revision of ANSI N14.5. Addressees currently reference and use the 1997 revision of ANSI N14.5 to meet 10 CFR Parts 71 and 72 containment and confinement regulations, respectively.

The NRC is in the process of updating Regulatory Guide (RG) 7.4, "Leakage Tests on Packages for Shipment of Radioactive Material," to reflect this revision. (RG 7.4 currently endorses the 1997 revision of ANSI N14.5.) However, IN 2016-04 is intended to inform addressees of the recently published ANSI N14.5-2014 in a timely manner.

Overview

The NRC encourages addressees that had been using the 1997 revision of ANSI N14.5 to become familiar with ANSI N14.5-2014, the current consensus standard that supersedes the 1997 revision of ANSI N14.5. The revised standard and appendices have new information and clarifications. In addition, there are leakage rate testing considerations that the NRC believes addressees would benefit from knowing, based on the new information in ANSI N14.5-2014 and the history of NRC staff's review of transportation packages and storage casks.

Although the considerations presented do not detail specific industry events, they do highlight important concepts for addressees to know, as well as section(s) of ANSI N14.5-2014 or other industry standards where additional information can be found. Pre-Shipment Leakage Rate Test on Type B Package Containment Boundary Components That Have Been Opened: Section 7.6 and Table 1 of ANSI N14.5-2014 address the pre-shipment leakage rate test on Type B package containment boundary components that have been opened. The pre-shipment leakage rate test is necessary to confirm that the containment system is properly assembled for each shipment. Type B packages containing a Type B quantity of material could have been used to transport Type A, Low Specific Activity (LSA) material, or Surface Contaminated Objects (SCO) in a previous shipment. Containment boundary components (e.g., seals and valves) could have been opened during a previous shipment of Type A contents, LSA material, or SCO, but a pre-shipment leakage rate test might not have been performed at that time. A pre-shipment leakage rate test should be performed on the containment boundary components that cannot be verified as being closed to confirm that the containment system is properly assembled on packages containing a Type B quantity of material.

Pre-Shipment Leakage Rate Test Acceptance Criterion: Section 7.6.4 of ANSI N14.5-2014 provides the pre-shipment leakage rate test acceptance criterion that shall be either: (1) a leakage rate of not more than the reference air leakage rate, LR, or (2) no detected leakage when tested to a sensitivity of at least $1 \times 10-3$ reference cubic centimeter per second (ref-cm3/s). The preshipment leakage rate test is necessary to confirm that the containment system is properly assembled for each shipment. The example in Section B.15.22 of ANSI N14.5-2014 presents a scenario where the containment criterion is $1 \times 10-7$ refcm3/s and the pre-shipment leakage rate test shows a leakage rate that is less than $1 \times 10-3$ refcm3/s. The last paragraph of the example notes that the pre-shipment leakage rate test procedure sensitivity is not intended to relax the containment criterion. In addition, the example illustrates that the pre-shipment leakage rate verification is not satisfied even though the leakage is less than $1 \times$ 10-3 ref-cm3/s.

Qualification and Certification of Personnel Performing Leakage Rate Tests: Sections 8.5 and 8.8 of ANSI N14.5-2014 address that leakage rate testing shall be performed by personnel who are qualified and certified in accordance with the requirements of the American Society for Nondestructive Testing (ASNT) Recommended Practice No. SNT-TC-1A.

Qualification and Certification of Personnel Approving Leakage Rate Testing Procedures: Sections 8.5 and 8.8 of ANSI N14.5-2014 address that leakage rate testing procedures shall be approved by personnel whose qualification and certification in the nondestructive method of leak testing includes certification by a nationally recognized society at a level appropriate to the writing and/or review of leakage rate testing procedures. For example, an individual who has obtained certification as an ASNT nondestructive testing (NDT) Level III in leak testing has the qualification necessary to develop and approve written instruction for conducting leakage rate testing as well as the knowledge to consider practical leakage rate testing issues (e.g., isolation of a vacuum pump, the reliability of boundary components). Additional information can be found in ANSI/ASNT CP-189.

Leakage Rate Testing Procedure Qualification: Sections 8.6 and A.3.8 of ANSI N14.5-2014 address leakage rate testing procedure qualification. This is necessary to ensure meaningful leakage rate test results. Section 2.1 of ANSI N14.5-2014 also includes new definitions related to calibration and procedure qualification. For example, an individual who has obtained certification as an ASNT NDT Level III in leak testing has the knowledge to ensure a leakage rate testing procedure is qualified.

Wetting of the Test Item: Section A.3.5 of ANSI N14.5-2014 addresses that the test item, which includes the seal interspace, should be dried thoroughly before the leakage rate test when prior wetting of the test item cannot be avoided.

<u>Pressure Change Leakage Rate Test Method</u> <u>Sensitivity to Temperature Variations:</u> Sections A.5.1 and A.5.2 of ANSI N14.5-2014 note that small temperature variations can lead to high pressure variations in the gas pressure drop and gas pressure rise leakage rate test methods. Therefore, temperature variations should be avoided.

Detector Probe Leakage Rate Test Method and <u>Test Item Consideration</u>: Section A.5.8 of ANSI N14.5-2014 addresses the importance of the detector probe travel speed and the necessary proximity (standoff distance) of the detector probe to the test item. These two factors are also important when using a thermal conductivity leak detector. Sections 7.1.1 and 7.1.2 of ANSI N14.5-2014 also address design considerations for leakage rate testing and leakage rate test method selection, respectively.

<u>Elastomeric O-Ring Permeation</u>: Section B.11 of ANSI N14.5-2014 addresses permeation—the passage of fluid (e.g. leak test tracer gas) through a solid barrier. Consideration of permeation should be given when selecting a leakage rate test tracer gas in combination with an elastomeric O-ring material.

Conclusion

Addressees should familiarize themselves with ANSI N14.5-2014 to become aware of new information and clarifications within the current consensus standard and appendices.

In addition, it is recommended that addressees specifically take into account the leakage rate testing considerations identified above.

IN 2016-04 can be found at http://www.nrc.gov/ reading-rm/doc-collections/gen-comm/infonotices/2016/.

For additional information, please contact JoAnn Ireland of NRC at (301) 415-6950 or at JoAnn.Ireland@nrc.gov.

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NRC Issues Annual Assessments for Nation's Nuclear Plants

By press release dated March 4, 2016, the U.S. Nuclear Regulatory Commission (NRC) announced that the agency has issued letters to the nation's 99 commercial operating nuclear plants about their performance in 2015. All but three plants were in the two highest performance categories.

"These assessment letters are the result of a holistic review of operating performance at each domestic power reactor facility," said Bill Dean, Director of the Office of Nuclear Reactor Regulation. "In addition to ensuring that the nation's nuclear power plants are safe by inspecting them, the NRC continuously assesses performance. The purpose of these assessment letters is to ensure that all of our stakeholders clearly understand the basis for our assessments of plant performance and the actions we are taking to address any identified performance deficiencies."

Later this year, 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 meeting.

Overview

Of the 96 highest-performing reactors, 85 fully met all safety and security performance objectives. The NRC used the normal "baseline" inspection program to inspect these reactors.

Eleven reactors need to resolve one or two items of low safety significance. For this performance level, regulatory oversight includes additional inspections and follow-up of corrective actions. Plants in this level include:

- Clinton (Illinois);
- Davis Besse (Ohio);
- Dresden 2 (Illinois);
- Duane Arnold (Iowa);
- Indian Point 3 (New York);
- Millstone 3 (Connecticut);
- Prairie Island 2 (Minnesota);
- River Bend (Louisiana);
- Sequoyah 1 (Tennessee); and,
- Susquehanna 1 and 2 (Pennsylvania).

NRC reports that Duane Arnold, Millstone 3, and Susquehanna 1 and 2 have resolved their issues since the reporting period ended and have transitioned to the highest performing level.

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

There were three reactors in the fourth performance category. Arkansas Nuclear One 1 and 2 (Arkansas) require increased oversight because of two safety findings of substantial significance. Pilgrim (Massachusetts) is in the fourth performance category because of longstanding issues of low- to-moderate safety significance. NRC states that reactors in this category receive additional inspections and increased agency management attention to confirm performance issues are being addressed.

Background

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. The annual assessment letters sent to each operating reactor are also available through the NRC's webpage on the Reactor Oversight Process.

Annual construction oversight assessments for new reactors at the Vogtle and Summer sites are available on the NRC website. The assessment letter for Watts Bar 2, which received its operating license in October 2015, is also available.

Every six months each plant receives either a midcycle or annual assessment letter along with an NRC inspection plan.

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

Post-Fukushima Screening of "Other External Hazards"

On April 5, 2016, U.S. Nuclear Regulatory Commission (NRC) staff met with the public to discuss and solicit comments regarding the results of the staff's preliminary screening of natural events other than earthquakes and flooding (ADAMS Accession No. ML16039A054).

This screening is part of the agency's efforts to learn from the issues raised by the Fukushima nuclear accident in 2011.

NRC's White Paper titled, "NRC Staff Assessment of Fukushima Tier 2 Recommendations Related to Evaluation of Natural Hazards Other Than Seismic and Flooding," can be found at http:// pbadupws.nrc.gov/docs/ml1603/ ML16039A054.pdf.

Overview

During the meeting, NRC staff described the process used to screen natural events other than seismic and flooding events. The results of that screening identify which hazards (e.g., extreme drought, heavy snow loads, tornadoes and hurricanes) should be evaluated further to determine if additional regulatory action is needed. The public was provided an opportunity to ask questions and provide comments regarding the staff's work.

To view the agenda for the meeting, go to http:// pbadupws.nrc.gov/docs/ml1608/ ML16084A538.pdf.

Logistics and Comments

The meeting was scheduled from 9:00 a.m. to 3:00 p.m. in Room T2B3 of the NRC's White Flint complex at 11555 Rockville Pike in Rockville, Maryland.

Comments on the assessment were accepted via email to JLD_Public.Resource@nrc.gov through April 12, 2016. NRC staff will consider, to the extent possible, comments received after that date.

Next Steps

The final results of the staff's screening will be provided to the NRC Commission by the end of May 2016. The staff's final assessment (including a determination of whether additional regulatory action is needed) will be provided by the end of the year.

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

NRC Proposes to Amend Annual Fees Regulations

The U.S. Nuclear Regulatory Commission (NRC) is seeking public comment on proposed changes to its regulations for the licensing, inspection, special project, and annual fees it would charge applicants and licensees for fiscal year (FY) 2016. The proposed regulations would reduce annual fees for most licensees due to a decrease in the NRC's budget.

On March 23, 2016, NRC published the proposed rule in the *Federal Register*. The proposed rule includes fees required by law to recover approximately 90 percent of the agency's budget.

Overview

For the FY 2016 proposed fee rule, the NRC's estimated required fee recovery amount (after billing and collection adjustments) is \$883.9 million. Approximately 37 percent of the fees, or \$325.8 million, would recover the cost of specific services to identifiable applicants and licensees under 10 CFR Part 170. The remaining 63 percent, or \$558.1 million, would be billed as annual fees under 10 CFR Part 171.

Compared with the FY 2015 annual fees, the FY 2016 proposed fees would decline for operating reactors, fuel facilities, research and test reactors, spent fuel storage/reactor decommissioning licensees, some materials users, and DOE transportation activities. Fees would increase for most uranium recovery licensees.

Significant Changes

The proposed rule includes several possible changes from the current FY 2015 fee rule.

First, the NRC would slightly lower the current hourly rate of staff review time from \$268 to \$266. As a result of this change, the NRC would revise application and registration fees.

Second, the NRC would establish a fee structure to recover the agency's costs in responding to significant requests for information, records, or NRC employee testimony related to lawsuits where the NRC is not a named party, also known as "Touhy requests." The proposed rule would assess fees on requests that require over 50 NRC staff hours.

Submitting Comments

Detailed instructions on how to submit written comments on the proposed fee rule were included in the *Federal Register* notice. Comments were accepted through April 22, 2016. Additionally, as part of its ongoing initiative to improve the transparency of its fee setting process, NRC is interested in obtaining input on the broader topic of ways to simplify and better communicate NRC fees and has published a separate request for information in the *Federal Register*. Information on this separate effort can be found on regulations.gov under Docket ID NRC-2016-0056.

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

NRC Meeting re Improving Tracking and Reporting on Rulemaking Efforts

On March 11, 2016, U.S. Nuclear Regulatory Commission (NRC) staff met with the public and industry representatives to discuss how the agency might improve public information on new or revised regulations.

The meeting was scheduled from 1:00 -5:00 p.m. in room T2B3 of the NRC's White Flint complex at 11555 Rockville Pike in Rockville, Maryland. During the meeting, NRC staff discussed efforts to develop recommendations for the Commission's consideration.

Throughout the meeting, NRC staff described its work in four areas of interest:

- creating a single tool for the public to track rulemaking activities;
- developing consistent rulemaking terms and definitions;
- ensuring that the public has access to current rulemaking activity information; and,

 revising the NRC website to reflect the items above.

During the meeting, the public was provided multiple opportunities to ask questions and provide comments on the staff's work and preliminary conclusions.

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

NRC Holds Public Meeting to Discuss FOIA Program

On March 23, 2016, the U.S. Nuclear Regulatory Commission (NRC) held a meeting to provide the public an opportunity to comment on the agency's Freedom of Information Act (FOIA) program, which gives people the right to request government records.

Overview

During the meeting, NRC staff discussed efforts to improve how the agency implements the FOIA program. Discussions addressed transparency, consistency and technology used in the FOIA process.

The meeting ran from 1:00 -3:00 p.m. in the NRC's Two White Flint North auditorium at 11545 Rockville Pike in Rockville, Maryland. The meeting agenda included presentations by NRC and the National Archives and Records Administration. There were also specific opportunities for the public to ask questions, express concerns, and make suggestions for additional efficiencies and improvements to the FOIA program.

Agenda

The agenda for the meeting was as follows:

- Introductions and Opening Remarks (Frederick Brown, Acting NRC Chief Information Officer)
- Role of OGIS (Nikki Gramian, Deputy Director of the Office of Government Information Services, U.S. National Archives and Records Administration)
- Increasing Proactive Disclosures (Michael R. Johnson, NRC Deputy Executive Director for Reactor and Preparedness Programs)
- FOIA Program Brief (Kimyata Morgan Butler, Branch Chief, NRC Office of the Chief Information Officer, FOIA, Privacy, Information Collections Branch)
- Questions and Comments (Roger Andoh, NRC FOIA Officer)
- Closing Remarks (Kimyata Morgan Butler)

The agenda can be found at http:// pbadupws.nrc.gov/docs/ML1533/ ML15338A172.pdf.

For more information on the issues that were discussed, please contact the NRC's Roger Andoh at (301) 415-5906, or via e-mail at roger.andoh@nrc.gov. For additional information, please contact Stephanie West of the NRC at (301) 415-8200.

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