

About LLW Forum

LLW Forum, established to facilitate state and compact implementation of the Low-Level Radioactive Waste Policy Amendments Act of 1985, promotes the objectives of the low-level radioactive waste regional compacts. LLWF provides opportunity for state and compact officials to share information with each other and to exchange views with officials of federal agencies and other interested parties.

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Acronyms Used in LLW notes

CFR	◆ Code of Federal Regulations
CRCPD	◆ Conference of Radiation Control Program Directors
DOE	◆ US Department of Energy
DOT	◆ US Department of Transportation
EPA	◆ US Environmental Protection Agency
IAEA	◆ International Atomic Energy Agency
ICRP	◆ International Commission on Radiation Protection
LLWF	◆ Low-Level Waste Forum
NARM	◆ Naturally occurring and accelerator produced radioactive material
NCRP	◆ National Council on Radiation Protection and Measurements
NORM	◆ Naturally occurring radioactive material
NRC	◆ US Nuclear Regulatory Commission
OAS	◆ Organization of Agreement States
TENORM	◆ Technologically enhanced naturally occurring radioactive material

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Officers

Joe Klinger, Chair
Kristen Schwab, Chair-Elect
Earl Fordham, Past-Chair
Alyse Peterson, Treasurer

Forum Corner


 LLW
FORUM

LLW Forum Meeting Dates

Board Meetings
July 13, 2022
August 10, 2022

LLW Forum Fall Meeting 2022
October 12-13, 2022, Baltimore, MD
DSWG October 14, 2022 (AM)

LLW Forum Spring Meeting 2023
March 22-23, 2023, in Charleston, SC.

LLW Forum Fall Meeting 2023
October 4-5, 2023, Salt Lake City
A site tour to Clive will be offered.

Forum Focus

The Board received updates on business items including the agenda for the Fall Meeting as described by Dan. The Treasurer advised the Board that the new bookkeeping systems are working well.

Regarding disposal, Alyse asked Stephen Raines (TX/VT Compact) about a pre-meeting discussion regarding the Acceptance Cap on Out-of-Compact Waste. Will WCS will hit the acceptance cap this fiscal year and what has generated this increase were questions posed. Considerations include a Decommissioning Project and hardware storage at a nuclear power in Mississippi. August 23 the TX/VT Compact meet with lengthy with discussion on permits. Dan will send a NewsFlash with the details to attend on-line.

Executive Director's News

Dan attended the Decommissioning Forum and Rad Waste Summit in Las Vegas, NV and also attended and provided a presentation on Part 61 at the EPRI Conference in Colorado Springs, CO. He attended the Rocky Mountain Compact Meeting in Denver, CO and virtually attended the Midwest Compact and Southeast Compact Meetings. Dan submitted final comments to the NRC on Regulatory Basis for Financial Security for Radioactive Material Sources from the DSWG. See the comments in this issue.

Focus on Financials

The Treasurer reported that finances are in good order. If you have specific questions regarding budget issues, please reach out to Alyse. Leonard remarked on Forum assets with regard to reserves and membership dues. Dan will work with Alyse on estimated year end budget numbers.

Mission & Operations Committee

Ed and Kristen will be working on the extensive survey for the Fall Meeting.

Safety Moment

Stephen Raines remarked on recent wildfires in Texas near his home and the importance of having an Evacuation Plan, regarding saving possessions and protecting livestock. He noted that [FEMA](https://www.fema.gov) has some information on their website to assist with an Evacuation Plan.

LLW Forum Fall Meeting

Fall Meeting October 12-13, 2022
Baltimore, MD.

Disused Sources Working Group Meeting
October 14, 2022

The meeting includes reports on the latest developments in states and interstate compacts; interactive discussions of leading-edge policy issues; and, expert presentations on regulatory, legal, and technical questions.

HOW TO ATTEND

Register online
at this link.

See the draft
agenda at this
link.

WHERE TO STAY

Make hotel
reservations at this
link.

The Royal Sonesta
Harbor Court
Baltimore
550 Light Street,
Baltimore, MD 21202
410.234.0550

DSWG Update – August 2022

By Michael Klebe

The Disused Sources Working Group (DSWG) is working to complete the Action Items from their April 2022 meeting. This includes preparing brief documents regarding:

- the State of Texas' "Two-Year" rule
- the State of Oregon's sealed source fee

Texas implemented a regulation that limits the possession of unused sealed sources to two years unless the licensee can justify continued possession.

Oregon structured their license fees to include fees for the possession of sealed sources or devices containing sealed source.

Both programs have resulted in the disposition of sealed sources that were in extended storage.

The DSWG also is evaluating the status of the 24 recommendations presented in their 2014 report, *Report of the Disused Sources Working Group: A Study of the Management and Disposition of Sealed Sources from a National Security Perspective*. Since publication of the report, many of the recommendations have been implemented or are no longer applicable. This evaluation will help the DSWG prioritize future activities.

The next DSWG meeting will be held on Friday, October 14, 2022, following the LLW Forum meeting in Baltimore, MD.



DSWG

DSWG Comments on Decommissioning Financial Assurance for Sealed and Unsealed Radioactive Materials

The DSWG of the LLW Forum has submitted comments to the NRC regarding the Regulatory Basis for the revision to the USNRC's rulemaking regarding Decommissioning Financial Assurance for Sealed and Unsealed Radioactive Material.

The DSWG disagrees with the NRC's selection of proposed Alternative 2. While Alternative 2 addresses the immediate need to respond to the petitioner (the Organization of Agreement States), it does not address the fundamental flaws with the NRC's Financial Assurance requirements. The DSWG is in support of Alternative 5, a dual track approach of Alternatives 2 and 4.

The DSWG provided detailed comments that highlight the DSWG's concerns with the existing NRC financial assurance regulations. The DSWG strongly encourages the NRC to pursue a two-track approach:

- one that will immediately address the concerns of the petitioner
- a second that addresses the highlighted concerns with the existing regulations.

Topics of comments include:

- List of Radionuclides Requiring Financial Assurance
- Out of Date Fixed Financial Assurance Amounts
- Threshold Amounts of Radioactive Material Requiring Financial Assurance

The DSWG encourages the NRC to pursue Alternative 5, a hybrid combination of Alternatives 2 and 4. The level of effort and cost are obviously greater than pursuing Alternative 2 on its own. However, the fundamental basis for the USNRC's financial assurance regulations is inadequate. The NRC has established fixed dollar amounts of financial assurance for both sealed and unsealed radioactive material that has not been updated in nearly two decades. In addition, the threshold for requiring financial assurance is set too high resulting in risk significant sealed sources not requiring financial assurance. Both Alternatives 2 and 4 can be implemented simultaneously. This will afford a relatively quick relief for the petitioner while the longer-term work on revising the financial assurance methodology to better reflect the decommissioning risk factors.

For more information or to obtain a copy of the complete comments, contact LLW Forum's Executive Director, Dan Shrum, at dshrum@llwforum.org or 801-580-3201.

Radiation Source Protection and Security Task Force Issues Report to President and Congress

The Task Force on Radiation Source Protection and Security established by the Energy Policy Act of 2005 evaluated and provided recommendations to the President and Congress relating to the security of radioactive sources in the United States from potential terrorist threats, including acts of sabotage, theft, or use of a radioactive source in a radiological dispersal device or radiation exposure device. The Task Force concluded that there are “no significant gaps in the area of radioactive source protection and security that are not already being addressed through continued attention by appropriate Task Force agencies.” The Task Force did not issue any new recommendations, and it closed one recommendation from previous Task Force reports. Actions for six of the remaining recommendations are ongoing. Reports are done every four years and this report was published in August 2022.

The report highlights the LLW Forum’s DSWG study on Concentration Averaging and Encapsulation Branch Technical Position Guidance (CA BTP). The report also discusses pilot disposals at U.S. Ecology and Waste Control Specialists. The report also includes recommendations for compacts. Pertinent recommendations and excerpts from the report are reproduced on the following page. See the full report at [this link](#).

HIGHLIGHTS

Pilot Disposals at WCS and U.S. Ecology

The DOE/NNSA partnered with the Conference of Radiation Control Program Directors (CRCPD) to complete two pilot disposals using the “alternative approaches for averaging” provisions in the revised CA BTP to dispose of sources as Class C LLRW. The first pilot disposal was completed in September 2017 at the U.S. Ecology commercial LLRW disposal facility in Washington State. In December 2019, the CRCPD completed a second pilot disposal of two large sources at the Waste Control Specialists facility in Texas, each containing Cs-137. One source contained approximately 128.5 curies (Ci) (4.75 terabecquerels (TBq)), and the other source contained 251 Ci (9.29 TBq) at disposal. These successful pilot disposals demonstrated the effective use of the alternative approaches in the CA BTP guidance and provide a pathway for commercial disposal of similar high-activity Cs-137 sources in the future.

LLW Forum DSWG CA BTP Study

The DOE/NNSA sponsored a study by the Low-Level Radioactive Waste Forum Disused Sources Working Group (DSWG), completed in May 2021, on implementing the CA BTP guidance and ongoing disposal challenges for sealed sources. The DSWG study included extensive outreach to a variety of stakeholders, including disposal facility operators, LLRW brokers, and LLRW processors. These outreach efforts found that while the CA BTP has improved the process for classifying sealed sources for disposal, the revised guidance has not resulted in a significant increase in the number of sources being disposed. The DSWG study also noted the following:

- Stakeholders generally agreed that the CA BTP has improved the LLRW classification process through added clarity, allowing for the use of larger disposal containers and providing for additional flexibility.
- Numerous obstacles to sealed source disposal remain, including high disposal costs, limited availability and high cost of Type B packaging, and inadequate planning for the full life-cycle costs associated with sealed sources.

Radiation Source Protection and Security Task Force Issues Report to President and Congress - continued

Recommendations on Return of Disused Sources

“The U.S. Government should encourage suppliers to provide arrangements for the return of disused sources and examine means to reduce regulatory impediments that currently make this option unavailable.”

Recommendation for Compacts

“The Task Force recommends that the U.S. Government, regional compacts, and States continue to evaluate disposal options for disused radioactive sources, including options for handling a potentially large number of disused cesium chloride sources that may be replaced once viable alternatives are available.”

Recommendations on Foreign-origin Am-241 Sources

“The Task Force recommends that Federal and State Governments investigate options such as providing short-term secured storage of sources recovered from U.S. owners that contain foreign-origin americium-241 [Am-241] radioactive material, so that these sources can be recovered now, and increase efforts to investigate options for disposal of these sources.”

Excerpts: 2022 Task Force Report Conclusion

Recommendation on GTCC LLRW

“The DOE [U.S. Department of Energy] should continue its ongoing efforts to develop GTCC [greater-than-Class-C] LLRW [low-level radioactive waste] disposal capability.”

Task Force Members

USNRC
 U.S. Department of Homeland Security
 USDOD
 USDOT
 U.S. Department of Justice
 U.S. Department of State Office of the Director of National Intelligence
 Central Intelligence Agency
 FEMA
 FBI
 USEPA
 OTHER INVITED AGENCIES
 U.S. Department of Health and Human Services Office of Science and Technology Policy
 Organization of Agreement States (nonvoting member)

Source Security

Source Security Issues Reported to USNRC

A *stolen gauge* in California was reported to NRC. In Tennessee a lost gauge was reported which contained 40 milliCuries of Am-241 and 10 milliCuries of Cs-137. Texas reported a *Moisture Density Gauge* containing a 40 milliCurie Americium-241 source and a 10 milliCurie Cesium-137 source was stolen out of the back of a company truck. In Virginia, "A Troxler 3440 [*gauge* was shipped] from the Alchua office of TRC to the West Virginia office of TRC via a common carrier. Tracking by the common carrier depicts the package to have arrived at its Memphis facility on 07/22/22 at 1125 EDT. [The package] is reported as delayed/pending per its website." Arizona reported a lost *gauge*: "at an XPO shipping facility in Phoenix, Arizona. The gauge contains 10 mCi of Cesium-137 and 40 mCi of Americium-241." Florida reported "a *Loss of Control regarding a soil moisture density gauge* containing 10 mCi of Cs-137 and 44 mCi of Am-241/Be at a jobsite in Rockledge, FL. The gauge was reported to be on the back of a pickup truck, out of its case, and unsecured. The driver drove off this morning, the gauge fell out and a City of Rockledge Public Works worker found the gauge. The worker knew what it was, retrieved it and contacted the company on the decal on the gauge." California reported the *theft of a moisture/density gauge* (Cs-137, 0.370 Giga-Becquerels, Am-241, 1.85 Giga-Becquerels).

Numerous lost sealed sources were reported by Massachusetts: "QSA Global reported that a shipment from Australia, containing *thirty-two Ir-192 sealed sources* totaling 134 Ci and two Se-75 sealed sources totaling 8.38 Ci, was missing in transit."

Source: NRC Event Reports

A *static eliminator*, containing 0.01 Ci of Po-210 was lost by the licensee in Colorado. *Exit signs*, containing 6.5 Curies of tritium each, lost by the licensee, were reported in Colorado.

Unsecured sealed sources were found in Florida: "Indian River County [Radiological Emergency Preparedness] (REP) [employee] called this afternoon regarding a small cardboard box, about half the size of a shoebox, with several sources inside being stored in a small, unlocked metal storage shed on property of the Emergency Operations Center. Inside the small cardboard box are six small cylindrical containers three of which are labeled 'Unrefined uranium minerals emit alpha, beta, and gamma radiation', one 'No Salt' container, and the other three are smaller metal containers not labeled. Also in the box are several typical plastic check sources inside plastic bags and one wooden gamma standard check source. REP reported an 'on contact' reading with the box a dose rate of around 280 microR/hr and with a gloved hand, removed all the items inside the box and reported a contamination reading of just over 400 cpm."

Texas reported discovered that "a Jubilant Draximage *generator* [containing Strontium-82 and Strontium-85] that was sent for disposal from its facility had not arrived at the disposal facility in Utah. Current activity today is 8.68 millicuries of Sr-82 and 12.52 millicuries of Sr-85." Texas also reported two generally licensed devices that were lost. The two devices are NRD P-2042-1000 Staticmaster devices containing 5 mCi of Polonium-210 each.

NRC Proposed \$24,000 Fine to Testing Engineers & Consultants Inc. of Michigan for violations of NRC requirements involving the *loss of two moisture density gauges* and the company's radiation safety practices.

Texas-Vermont Compact Annual Reporting

TLLRWDC Annual Report for 2021 Issued in 2022

In 2022, the TLLRWDC (Texas/Vermont Compact) provided to the leadership of Texas and Vermont an annual report reporting data including 2020, 2021 and FY 21 time periods.

Information includes:

- volumes of waste imported and exported
- revenue generated as a result of agreements for import into the Waste Compact Facility
- status of monitoring and protection of capacity of the facility
- an attachment of independent audit results

Active import agreements that may have resulted in waste shipments in 2020 are given and export agreements impacting 2021 are also given. Curies and volumes are reported. The report notes that the Technical Committee of the TLLRWDC reviews import applications to insure shipments will not impinge upon the capacity of the site needed by Texas and Vermont.

Source: [TLLRWDC Annual Report](#)

The auditors report that “the financial statements represent fairly, in all material respects, the respective financial position of the Commission, as of August 31, 2021. The report notes that the Commission’s net position (the difference between assets and liabilities) provides one measure of the Commission’s financial health. Over time, increases or decreases in the Commission’s net position are one indicator of whether its financial health is improving or deteriorating. The auditors note that to fully assess the overall health of the Commission however, one should also consider non-financial factors as well, such as the current political environment related to the activities of the Commission and possible future changes to the support levels provided by the states of Texas and Vermont.”

Martinez, Rosario & Company, LLP,
CPAs

Capacities - December 2021

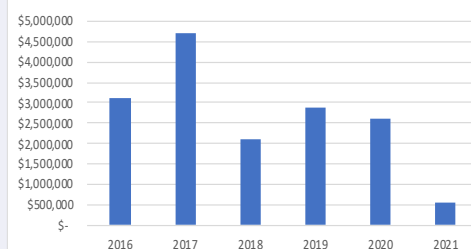
	TOTALS	% PERMITTED
Volume (cubic feet)	211,872	2.35%
Curies	578,334	Less than 15.6%

Financial Reporting: Fees

Table 4: Breakdown of Fees from Out-of-Compact Disposal - FY 2021

Description	Quantity (\$)
1 st Quarter 2021	51,367.03
2 nd Quarter 2021	408,651.13
3 rd Quarter 2021	19,868.81
4 th Quarter 2021	60,298.10
Total Fees 2020	2,610,464.48
Total Fees 2019	2,885,763.34
Total Fees 2018	2,091,621.46
Total Fees 2017	4,699,561.12
Total Fees 2016	3,132,315.05

Fees from Out-of-Compact Disposal
2016 - 2021



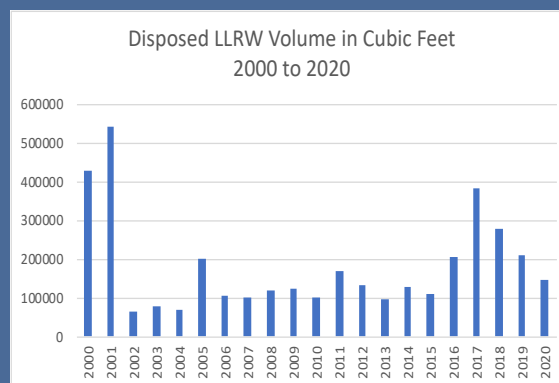
Newly Published Report of the ACC includes a Discussion of Low-Level Radioactive Waste Trends in the Appalachian Compact 2000-2020

The Appalachian Compact Commission (ACC) has published Annual Low-Level Radioactive Waste Program Report for Calendar Year 2020, a report to the Pennsylvania General Assembly and the Appalachian Compact Commission. The report was recently published and posted due to the re-work of the LLRW and TENORM volume data necessitating a delay in reporting. (A previous article by David Allard, CHP, Chair of the ACC, in the LLWnotes related to TENORM waste being mis-classified as LLRW.) Work is in progress for the 2021 reporting.

Highlights of the Low-Level Radioactive Waste Trends 2000 to 2020

Volume Trends

- The total volume of Appalachian Compact LLRW in 2020 is about 145,545 cubic feet.
- The volume of LLRW has been decreasing since 2017.
- This new trend is evident since TENORM waste has been subtracted from the past volume data generated.



Activity

The 2020 LLRW activity (Ci) from the Appalachian Compact is about 1,213 Ci.

The closure of the Barnwell facility to waste disposal from outside the Atlantic Compact has had a significant impact on the activity trend of LLRW in the Appalachian Compact during the years 2009 through 2013.

During these years, only the lower activity Class A waste was disposed of by the Appalachian Compact's LLRW generators at the EnergySolutions disposal site. Therefore, the reported activity of LLRW during 2009 through 2013 is very low.

The activity of the LLRW is trending up after 2014 due to the availability of the WCS facility in Texas and disposal of higher concentration of waste, namely Class B and C wastes, at this facility.

Most of the Class C waste is contained in irradiated reactor components, which are being stored at the nuclear power plant sites. This is mainly due to the high cost of disposal of this waste and the curie limit that is established for the imported waste at the WCS disposal facility.

D&D Waste

During years 2000, 2001, and 2016 through 2019 decontamination and decommissioning (D&D) waste contributed significantly to the amount of waste that is reported for the Appalachian Compact. LLRW volumes are expected to increase again as TMI Unit 2 begins active decommissioning.

The traditional volume-reduction methods are not effective for most D&D wastes, which generally consist of building debris and soil. Also, most D&D wastes have extremely low radioactivity per volume (low-specific activity).

Note: For additional explanatory notes regarding the historical record and interpretation of the data, please see the report at this [link](#).

Appalachian Compact

Delaware • Maryland •
Pennsylvania • West Virginia

Annual Low-Level Radioactive Waste Program Report to the Pennsylvania General Assembly and the Appalachian Compact Commission, issued in 2022, is now available [online](#).

This report contains the LLRW generation data for calendar year 2020. See the discussion of trends in an article in this issue.

Atlantic Compact

Connecticut •
New Jersey • South Carolina

Meeting

September 21, 2022 in Columbia, South Carolina
Contact: Max Batavia max@atlanticcompact.org

Personnel News

Barnwell LLW Disposal Site has a new director of the site's disposal operations. His name is Jason Jones. He took over from Ben Smith who has retired .

Central Compact

Arkansas • Kansas • Louisiana • Oklahoma

**Meeting
July 19, 2022**

Meeting included:

Discussion of audits FY 19, 20, 21, 22

Initiatives for coming year – review and revise bylaws

[Proposed budget](#) FY 23 of \$51,750

Central Midwest Compact

Illinois • Kentucky

**Meeting
September 13, 2022**

The Central Midwest Compact Commission (CMCC) will hold its Annual Meeting September 13, 2022, in Springfield, IL at 10 CDT. It will be offered virtually as well as in-person. In-person meeting will be held at the SpringHill Suites, 3921 S MacArthur Boulevard, Springfield, IL 62711.

If you would like a room reserved the night prior, please contact: loribeagles@gmail.com

If you would like the Webex (on-line) invitation, please contact: loribeagles@gmail.com

Draft agenda includes:

- Election of Officers
- Reports from the Chairman & Host State, Kentucky Commissioner Report, Executive Assistant Report
- Acceptance of Auditor's Report
- Adoption of Fiscal Year 23 Budget
- Investment Review
- Discussion on Website Maintenance
- Review the RESOLUTION REGARDING AMENDMENTS TO COMPACT AND REGIONAL MANAGEMENT PLAN
- KY LLRW Management Update
- IL LLRW Management Update
- Review of FY22 Annual Report
- Review of Bylaws (consider changing number of meetings per year)

Northwest Compact

Alaska • Hawaii • Idaho •
Montana • Oregon • Utah • Washington • Wyoming

Meeting

September -October 2022 time frame

State of Utah

The Waste Management and Radiation Control Board has scheduled a meeting for August 11, 2022, at 1:30 PM. For details about the meeting along with the agenda and information regarding how to participate, see the [website](#).

Southwestern Compact

Arizona • California • South Dakota • North Dakota

NRC to Hold Public Meeting in San Luis Obispo to Discuss Diablo Canyon Nuclear Power Plant Decommissioning Plan

USNRC held a public meeting July 21 in San Luis Obispo, California, to discuss and receive public comment on Pacific Gas & Electric Co.'s previously announced plans to decommission the Diablo Canyon Nuclear Power Plant. PG&E has announced its intention to cease operations at Diablo Canyon's two pressurized- water reactors when their licenses expire in 2024 and 2025. Details includes a site-specific decommissioning cost estimate and an irradiated fuel management plan. It provides an overview of PG&E's planned activities, schedule, projected costs, and environmental impacts for decommissioning the plant.

Source: NRC News Release No: 22-025 July 7, 2022

Contact: David McIntyre, 301-415-8200

Texas Compact

Texas • Vermont

Meetings

Thursday, July 21, 2022

August 23, 2022

September 29, 2022 in Montpelier, VT

August 23, 2022 Agenda items include:

- Applications for importation
- Rules Committee Report on Proposed Amendments to 31 TAC § 675.24 ("Management Rule"), §675.20 and §675.21 and other rulemaking projects
- Capacity Committee Report including matters related to the capacity of the Compact Facility
- Contingency Plan Committee Report including matters related to section 3.04(7) of the Compact, Texas Government Code § 403.006.
- Potential improper importation by out-of-compact party in September 2021
- Report from Waste Control Specialists, Chairman's Report
- 2023 Commission Budget and Contracts
- Legislative Update
- Executive Director's Report
- Texas Sunset Advisory Commission Review
- Commission Office Space

[The Annual Report 2022](#) is available. See highlights in this issue.

Texas-Vermont Compact Rule Proposals

The Rules Committee has updated proposed changes to the rules for the Export Rule and Management Rule. You may view the changes at the TLLRWDCC home page at this [link](#). If you would like to comment on the proposed rules, please email the Commission at administration@tllrwdcc.org.

Stephen Raines

Executive Director

919 Congress Avenue, Suite 830

Austin TX 78703

LLW Forum Note:

The LLW Forum created a subcommittee to evaluate shipments between compacts in order to ensure that various compact rules/bylaws are being met. Please take the time to review the proposed changes and provide comment as necessary. Thanks to the TLLRWDCC rules committee for their efforts.

NRC Leadership News

NRC Commissioner Caputo Sworn In; Crowell Scheduled; Will Bring Commission to Full Strength

Annie Caputo, nominated by President Biden and confirmed by the United States Senate, was sworn in as an NRC Commissioner on August 9, 2022. Bradley R. Crowell, also nominated by President Biden and Senate confirmed, is scheduled to be sworn in by NRC Chairman Christopher T. Hanson later this month. He will become the fifth NRC Commissioner.

Commissioner Caputo will serve the remainder of a five-year term ending June 30, 2026. Commissioner Crowell will serve the remainder of a five-year term ending June 30, 2027. This will bring the Commission to its full five members for the first time since January 2021.

"I am delighted to welcome Brad and welcome back Annie to the Commission. Our agency has worked best with five Commissioners, and now we have them," said Hanson. "Annie and Brad bring extensive talent and experience to our agency. I look forward to their many contributions to our important work."

The Commission was established to be a collegial body that formulates policies, develops regulations, issues orders to licensees and adjudicates legal matters. The Commissioners serve five year terms, with one term expiring every year on June 30. No more than three Commissioners may be of the same political party.

Commissioner Caputo previously served on the NRC Commission from 2018 to 2021. Most recently, she worked as a consultant for the Idaho National Laboratory related to international collaboration on advanced nuclear reactors. Prior

to her work at INL, she served as a professional staff member on the U.S. Senate Armed Services Committee, assisting with issues related to the National Nuclear Security Administration's infrastructure. She previously served as senior policy advisor for Chairman John Barrasso on the Senate Environment and Public Works Committee. She also held this position for then-Chairman James Inhofe from 2007-2012. From 2005-2006 and 2012-2015, Commissioner Caputo worked for the House Committee on Energy & Commerce, handling nuclear energy issues. Most recently, Commissioner Crowell served as Director of the Nevada Department of Conservation and Natural Resources, where he led approximately 1,000 employees and managed a nearly \$300 million biennial budget.

Commissioner Crowell has more than 20 years of experience in the fields of energy, environment, natural resources, climate change, and national security, including executive leadership positions in federal and state government. He previously worked for multiple Members of Congress, including former Nevada Governor and Sen. Richard Bryan and Sen. Sheldon Whitehouse. Commissioner Crowell served in the Obama-Biden Administration at the U.S. Department of Energy from 2010-2016, including serving as Assistant Secretary of Energy for Congressional and Intergovernmental Affairs.

Source: NRC News Release No: 22-034
August 11, 2022

Contact: Office of Public Affairs, 301-415-8200

Reactor News

Briefing on 10 CFR Part 53 Licensing and Regulation of Advanced Nuclear Reactors

Slides are available at this [link](#).

Presenters are:

Greg Cullen, Vice President, Energy Northwest

Dennis Henneke, Consulting Engineer, Advanced Reactors, GEH

Peter Hastings, Vice President, Regulatory Affairs & Quality, Kairos Power

Doug True, Senior Vice President and Chief Nuclear Officer, Nuclear Energy Institute

Jeff Semancik, Director Radiation Division CT DEEP, Connecticut Department of Energy and Environmental Protection

NRC Staff

Dr. Edwin Lyman, Director of Nuclear Power Safety, Union of Concerned Scientists

Muhannad Shaqqo, Senior Vice President, Advanced Reactors, Westinghouse Electric Company

Advanced Reactor Stakeholder Meeting

August 18, 2022 The purpose of these periodic advanced reactor stakeholder meetings is to share information and discuss topics related to the development and licensing of advanced reactors with the nuclear industry and other stakeholders.

NRC To Issue Rule Certifying NuScale Small Modular Reactor

The U.S. Nuclear Regulatory Commission has directed the staff to issue a final rule that certifies NuScale's small modular reactor design for use in the United States. The certification's effective date is 30 days after the NRC publishes the rule in the Federal Register.

NRC certification means the design meets the agency's applicable safety requirements. An application for a nuclear power plant combined license that references a certified design will not need to address any of the issues resolved by the design certification rule. Instead, the combined license application and the NRC's safety review would address any remaining safety and environmental issues for the proposed nuclear power plant. The design certification approves the NuScale reactor's "design control document," which is incorporated by reference in the final rule.

NuScale submitted an application to the NRC on Dec. 31, 2016, to certify the company's small modular reactor design for use in the United States. The NRC staff met its schedule goals for completing its technical review. The design uses natural, "passive" processes such as convection and gravity in its operating systems and safety features, while producing up to approximately 600 megawatts of electricity. The SMR's 12 modules, each producing 50 megawatts, are all submerged in a safety-related pool built below ground level.

The NRC has previously certified six other designs: the Advanced Boiling Water Reactor, System 80+, AP600, AP1000, the Economic Simplified Boiling Water Reactor and the APR1400. More information about the NuScale design review can be found on the NRC's website.

Source: NRC News Release No: 22-029
July 29, 2022

Contact: Scott Burnell, 301-415-8200

Disposal Sites - Public Outreach & Education

WIPP Community Days Provide Opportunity for Learning, Exploration

CARLSBAD, N.M. – EM's Waste Isolation Pilot Plant (WIPP) recently sponsored two community events allowing visitors from across New Mexico to visit the site and learn more about its critical national mission.

Members of the public recently learned about how waste is transported to WIPP and safely and compliantly unloaded from transportation casks. Visitors also got to ride the waste hoist more than a half mile to the WIPP underground to learn how waste containers are transported to disposal rooms for final emplacement. Additionally, they learned how critical infrastructure improvements such as the Safety Significant Confinement Ventilation System and a new utility shaft will bring additional airflow to the WIPP underground.

Tour participants said the visit allowed them to gain a deeper understanding of WIPP operations.

"Having the opportunity to tour the WIPP site satisfied a curiosity I've had for a long time. I thoroughly enjoyed the tour and having my multitude of questions answered by our friendly and informative escorts," said visitor Michele Robertson. "Learning more about what WIPP does for the community locally, and the role that WIPP plays in the DOE national security mission was inspiring and I appreciate their commitment to safety. My favorite part was learning about the lightning protection system they have in place."

Providing opportunities for the public to learn about WIPP and its mission is important, according to Reinhard Knerr, manager of the EM Carlsbad Field Office.

"We want the community to be informed about what we do here and that we are carrying out the work in a safe and compliant manner," Knerr said. "This is of vital national importance." Another WIPP visitor, Aaron Irving, said seeing all the safety measures and backups in place helps him to be even more confident in WIPP's mission to dispose of the nation's TRU waste in a safe, secure

and responsible manner. "Getting to be onsite and go underground really helped to give me a bigger perspective of how big this project is and how deep underground the TRU waste is being stored," Irving said.

Contributor: Khush Ghadiali

EM Update | Vol. 14, Issue 30 | Aug. 2, 2022

WIPP Hosts Community Forum in Santa Fe

Senior leaders from EM's Waste Isolation Pilot Plant (WIPP) hosted a Community Forum and Open House on July 7 at the Santa Fe Convention Center in Santa Fe, New Mexico. Staff provided progress updates on WIPP capital asset projects, infrastructure upgrades, the WIPP transportation program, and facility operations. More than 250 stakeholders attended in person and virtually. Excerpts from EM Update | Vol. 14, Issue 27 | July 12, 2022

Idaho Site Creates Virtual Tour for Public in Wake of Pandemic

IDAHO FALLS, Idaho – A virtual tour was created using a video camera was affixed to an automobile as it navigated roads through the 890-square-mile DOE site. Before the pandemic, EM conducted more than 40 major INL Site tours per year with environmental interest groups, congressional staffers, Idaho elected officials, interns, foreign nationals and DOE headquarters officials.

The video shows workers built a mock-up to simulate the retrieval of radioactive waste known as calcine. The video also featured the Integrated Waste Treatment Unit (IWTU), constructed to process 900,000 gallons of radioactive liquid waste into dry granular solids that will be packaged in stainless steel canisters and stored in concrete vaults. The waste was generated during decontamination activities following spent nuclear fuel reprocessing.

Excerpts from Contributor: Erik Simpson. EM Update | Vol. 14, Issue 32 | Aug. 16, 2022

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Spent Fuel & Interim Storage

NRC Issues Final Environmental Study on Proposed New Mexico Spent Fuel Storage Facility

NRC has published its final environmental impact statement for Holtec International's application for a license to construct and operate a consolidated interim spent nuclear fuel storage facility in Lea County, New Mexico.

Based on its environmental review, the NRC staff recommends issuing the license, subject to the determinations in the staff's safety review of the application.

Holtec proposes initially to store 500 canisters holding approximately 8,680 metric tons of spent nuclear fuel in a first phase and eventually to store up to 10,000 canisters in an additional 19 phases. The canisters would be transported by rail from operating, decommissioning, and decommissioned commercial nuclear power plants around the country.

The NRC's EIS assesses the environmental impacts of the entire project, or all 20 possible phases, from construction through decommissioning. It looked at the impacts to land use, transportation, geology and soils, surface waters and wetlands, groundwater, ecological resources, historic and cultural resources, environmental justice and several other areas.

NRC staff held six online public meetings to present the draft EIS and receive public comments. More than 4,800 comment submissions with 3,718 individual comments were received and addressed in the final EIS.

Publication of the final EIS completes the environmental portion of the NRC's licensing review. The staff will make a licensing decision following completion of its safety evaluation report, expected in January 2023.

Source: NRC News Release No: 22-027 July 13, 2022

Contact: David McIntyre, 301-415-8200

EM Experts Support Treaty Obligations on Safety of Spent Fuel, Waste Management

VIENNA – DOE EM has provided technical leadership to the U.S. government's interagency working group implementing the Joint Convention, an international treaty on the safety of spent fuel management and radioactive waste management. The treaty, adopted in 1997, marked its 25th anniversary this year.

Over 700 delegates representing 76 of the 88 Contracting Parties across the globe participated in the Seventh Review Meeting of the Joint Convention, held June 27-July 8 in Vienna. The U.S. national presentation highlighted significant progress; U.S. experts also participated in peer review sessions of all country groups.

Tonkay also discussed EM stakeholder engagement and delegates showed particular interest in EM activities, such as

its citizens advisory boards, efforts in environmental justice and engagement with tribal nations.

Grossi, director general of the International Atomic Energy Agency (IAEA), welcomed the delegates and highlighted the current war in Ukraine, a country with nuclear power where IAEA experts are assisting with technical assessments, disposal of disused orphan sources and safe transport of radioactive sources. The U.S. and several other delegations submitted statements regarding the impact of military actions on the ability of Contracting Parties to meet treaty obligations.

Excerpts from EM Update | Vol. 14, Issue 28 | July 19, 2022

Congressional Activities: Spent Fuel and Decommissioning

Congressional Inquiry about SONGS



CHAIRMAN

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

July 7, 2022

The Honorable Mike Levin
United States House of Representatives
Washington, DC 20515

Dear Representative Levin:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your June 2, 2022, letter requesting information regarding the regulatory approach for the potential deployment of a hot cell at independent spent fuel storage installation (ISFSI) sites such as San Onofre Nuclear Generating Station (SONGS). Establishing of a hot cell at an ISFSI site would require an NRC licensing action that would include opportunities for stakeholder participation.

The NRC's regulations specify that dry cask storage licensees must be able to safely remove, with no operational safety problems, the spent nuclear fuel from storage for further processing or disposal. A hot cell, also referred to as a dry transfer system, is not required to meet these regulations. It is one means available to licensees to conduct certain activities associated with handling spent nuclear fuel, such as the potential unloading of spent fuel from a storage cask and loading of spent fuel into a transportation cask. To provide enhanced guidance on the regulatory approach, the NRC issued the Standard Review Plan for Spent Fuel Dry Storage Systems and Facilities (NUREG-2215), which addresses fuel retrievability in spent fuel storage applications. Other options include, but are not limited to, use of a wet transfer system if the site's spent fuel pool is still operational, use of an overpack, or direct transfer of a spent fuel canister into a transportation cask.

If a licensee were to pursue a dry transfer system, the NRC staff would review the proposed system using the regulations in Part 50 or Part 72 of Title 10 of the *Code of Federal Regulations* (10 CFR), and the licensee would need to submit an environmental report for NRC review and evaluation under 10 CFR Part 51. Additionally, the NRC staff would review the proposed system for compliance with the radiation protection requirements in 10 CFR Part 20. At this time, the NRC is not aware of any licensee that is considering a dry transfer system.

If you have any questions or need additional information, please contact me or have your staff contact Eugene Dacus, Director of the Office of Congressional Affairs, at (301) 415-1776.

Sincerely,

Christopher T. Hanson

Legislation Introduced to Minimize Long-Lived Waste

S.4242 - Thorium Energy Security Act of 2022

It is the sense of Congress that:

- (1) it is in the best economic and national security interests of the United States to resume development of thorium molten-salt reactors that can minimize long-lived waste production, in consideration of—
- (A) the pursuit by the People's Republic of China of thorium molten-salt reactors and associated cooperative research agreements with United States national laboratories; and
 - (B) the present impasse around the geological disposal of nuclear waste;

See the full text at this [link](#). Legislation filed at this [link](#).

Status: referred to the Committee on Energy and Natural Resources.

Low-Level Radioactive Waste Disposal Compact Membership

Northwest Compact

- Alaska
- Hawaii
- Idaho
- Montana
- Oregon
- Utah
- Washington
- Wyoming

Midwest Compact

- Indiana
- Iowa
- Minnesota
- Missouri
- Ohio
- Wisconsin

Appalachian Compact

- Delaware
- Maryland
- Pennsylvania
- West Virginia

Rocky Mountain Compact

- Colorado
- Nevada
- New Mexico

Northwest accepts Rocky Mountain waste as agreed between Compacts

Central Midwest Compact

- Illinois
- Kentucky

Atlantic Compact

- Connecticut
- New Jersey
- South Carolina

Southwestern Compact

- Arizona
- California
- South Dakota
- North Dakota

Texas Compact

- Texas
- Vermont

Central Compact

- Arkansas
- Kansas
- Louisiana
- Oklahoma

Southeast Compact

- Alabama
- Florida
- Georgia
- Mississippi
- Tennessee
- Virginia

Unaffiliated States

- District of Columbia
- Maine
- Massachusetts
- Michigan
- Nebraska
- New Hampshire

- New York
- North Carolina
- Puerto Rico
- Rhode Island

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Information Resources

- DOE Public Affairs/Press Office - 202/586-5806
- DOE Distribution Center - 202/586-9642
- EPA (for program information, publications, laws and regulations) www.epa.gov
- EPA Information Resources Center - 202/260-5922
- EPA Listserve Network Contact Lockheed Martin EPA Technical Support at (800) 334-2405 or email (leave subject blank and type help in body of message) listserv@unixmail.rtpnc.epa.gov
- Government Accounting Office (GAO) Document Room - 202/512-6000
- Government Printing Office (to order entire *Federal Register* notices) - 202/ 512-1800
- Legislative Resource Center (to order U.S. House of Representatives documents)- 202/226-5200
- NRC Public Document Room - 202/ 634-3273
- NRC Reference Library (NRC regulations, technical reports, information digests, and regulatory guides) www.nrc.gov
- U.S. Government Printing Office (GPO) (for the Congressional Record, Federal Register, congressional bills and other documents, and access to more than 70 government databases) <http://www.access.gpo.gov>
- U.S. Senate Document Room - 202/224-7860
- Variety of documents through numerous links at LLW Forum, Inc. at www.llwforum.org

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