LLW notes

Volume 40 Number 2 March - April 2025

A Message from Dan Shrum, Executive Director

I thank everyone who participated in the April 2025 Forum meeting. The tour, meetings, and networking made it a successful event. Mark your calendars for the Fall meeting to be held in Baltimore, MD - a week later than normal - October 15-16, 2025 at the Royal Sonesta Hotel.

Daniel B. Shrum, Executive Director

Please submit comments, suggestions or articles for the LLW *notes* to margaretllwf@gmail.

In this Issue...

Find highlights of the Spring Meeting, along with compact and regional news.

© Low-Level Waste Forum produced by Daniel B. Shrum, Executive Director Margaret Henderson, Editor

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. LLW Forum 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.

LLW notes, a copyrighted publication of the LLW Forum, is distributed bimonthly to the Board of Directors of the Low-Level Radioactive Waste Forum, an independent non-profit corporation. Anyone--including compacts, states, federal agencies, private associations, companies and others--may support and participate in the LLW Forum by purchasing memberships and/or by contribution grants or gifts. For information on LLWF memberships and/or subscriptions to the LLW notes, visit www.llwforum.org or Contact Daniel Shrum, Executive Director, telephone (801) 580-3201, dshrum@llwforum.org. For permission to reproduce or share information from LLW notes, see the Copyright Policy at the conclusion of this publication.

	Acronyms Used in LLW notes
CFR	Code of Federal Regulations
CRCPD	Conference of Radiation Control Program Directors
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
EPA	U.S. 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	U.S. Nuclear Regulatory Commission
OAS	Organization of Agreement States
TENORN	A Technologically enhanced naturally occurring
	radioactive material

Contents

	A Message from Dan Shrum, Executive Director	1
1	Spring Meeting	
	Forum Welcome	
	Welcome to Ector County	
	Site Visit Highlights	
	History of the Texas-Vermont Compact	
	WCS Update	
	TCEQ Update	
	ARDT Update	
	Lone Star State HappeningsA Legislative and	
	Regulatory Update from Texas	<u>c</u>
	Urenco Update	
	Accessing U.S. Disposal Sites	
	Updates from Commercial Disposal Facilities in the	
	United States	12
	EnergySolutions	12
	Republic Services	
	Overview of TSUSG	
	EPA and DOE Updates	
	NRC Update	
	Department of Energy	
	DOE Amie Robinson	
	DOE - Sealed Source Programs	
	Source Security	
	DSWG Update April 2025	
	IAEA's Technical meeting, "Disused Sealed Radioacting Sources Disposal Options in Near Surface	ve
	Facilities"	15
	Panel Discussion – State's Implementation of	10
	Proposed 10 CFR Part 61	16
	Southeast Compact Presents Hodes Award	
	to Gary Benda	17
	Appalachian Compact	17
	Central Midwest Compact	
	Northwest Compact	
	Southeast Compact	
	Southwestern Compact	
	Texas Compact	
	Unaffiliated States	
	Low-Level Radioactive Waste Compact Membership	19
	<u>a</u>	16
		4
	Officers	
	Ron Gaynor, Chair	
	Tom Hansen, Chair-Elect	
1		- 11

Doug Hansen, Past-Chair Kristen Schwab, Treasurer



Forum Focus



SPRING MEETING April 9-10, 2025 Odessa, Texas

FORUM WELCOME

Doug Hansen, LLWF Chair

The value and importance of the Forum is in getting together for informal conversations and finding ways to deal with issues such as legal and federal changes, job market challenges, and other challenges unique to radioactive waste disposal.

For the future...

- Invite others to come to the Forum meetings
- Consider how to support training the next generation through Forum efforts

Welcome to Ector County

Doug Fawcett, Ector County Judge

Ector County "invest in ourselves" initiatives include working to become the largest solar producer in Texas and the U.S., capitalizing on its diverse energy profile, and completing local infrastructure projects. Ector County population is growing and is around 165,000 - 200,000.



Volume 40 Number 2 March - April 2025 Page 3

Site Visit Highlights: Urenco & WCS

by Rich Janati, Administrator, Appalachian Compact Commission

On April 8, several members of the LLW Forum had the opportunity to tour the Urenco USA enrichment facility in Eunice, New Mexico, and the Waste Control Specialists (WCS) disposal site in Andrews County, Texas. Remarkably, these sites are located only a few miles apart, yet they reside in different states and time zones.



Group Tour at WCS

Urenco USA

Urenco USA is the only commercial uranium enrichment facility operating in the U.S. The facility uses advanced gas centrifuge technology to enrich uranium to fuel nuclear power plants. It recently expanded its capacity and received approval from the Nuclear Regulatory Commission to increase enrichment levels up to 10% U-235, beyond the traditional 5% limit, to support the future deployment of advanced reactors that require High-Assay Low-Enriched Uranium (HALEU). This milestone demonstrates Urenco's role as a key player in the nation's nuclear energy program.

Waste Control Specialists (WCS)

Just across the state line, the WCS facility specializes in the disposal of low-level and mixed low-level radioactive waste, including waste from commercial generators and the Department of Energy. The site includes the Texas Compact Waste Facility and the Federal Waste Facility, among others. The site's geology is excellent, with thick, stable red-bed clay that naturally limits water movement, something that was clear and noticeable even to those without a geology background. WCS plays a key role in safe management of radioactive waste from across the country, including the nuclear industry.

Visiting both Urenco USA and WCS offered LLW Forum members a clear look at the nuclear fuel cycle, from enrichment at the front end to safe disposal at the back end. These facilities demonstrate the kind of innovation, safety, and strategic planning that are essential to maintaining a reliable and responsible nuclear future in the United States.

History of the Texas-Vermont Compact

Beginning Years 2009-2010

Margaret Henderson, Interim Executive Director

Two recurring issues --- interwoven in the beginning years: financial & legal

Financial

TX interim appropriation \$100,000 through a TCEQ appropriations request

Banking Resolution July 21, 2009 to open a bank account

VT contribution per invoice \$25,000 two successive fiscal years for its party state pro-rata share and funds deposited in the account

TCEQ's fee rule for fees to support operations of commission per the statue and for facility to open and collection of fees to commence

Legal

Rulemaking

Volume Rule – adopted 8/31/2009 - the total volume of low-level radioactive waste that the host state will dispose of in the compact facility in the years 1995-2045, including decommissioning waste.

Import – Export Rules – adopted and effective 2/4/2011

The Next Decade: Period of Growth and Expansion

Brandon Hurley, Chair

Highlights

Determined import-export procedures and refined ... Received the 1st import from Vermont...Developed all on-line operations for petitions.

More waste is coming in now than ever before as some options are not available anywhere else--the compact facility serves a national purpose as the last venue for out-of-compact waste.

Control of import/export operations from non-party states is an evolving process.

Compact has nothing to do with high level DOE waste.

Accomplishments

- Established operating policies
- John Salsman's White Paper on Import
- Ongoing dialogues and educational outreach with generators
- Monitoring the Curie cap through the Contingent Curie Program
- Protecting capacity for in-compact generators

In the dawn of nuclear renaissance, the commission is anticipating policies and operations so that it will nimbly react to situations.

The Executive Director vacancy was filled in 2020 though it was difficult to find qualified applicants. The commission is please to be contracting with two qualified individuals now. The commission values being part of the Forum activities, especially due to Dan Shrum's national leadership.

History of the Texas-Vermont Compact

Current and Future

Stephen Raines, Executive Director, 2020 - current

Focus

Streamlining operations and technical advances and continuing dialog with stakeholders Service mindset and user-friendly

Highlights

- Webinar meetings for the public are on commission's own YouTube Channel https://www.youtube.com/results?search_query=texas+low+level+radioactive+waste+compact+commission
- Public outreach includes reminding the public that the compact deals with low-level waste, and not spent fuel.
- Texas Sunset review is a good opportunity to review the commission, but the commission is not subject to being "sunseted" through legislative review.
- The commission updated applications for import-export to better suit the public and the industry.
- Processes for tracking in real time include updated rules, contingency plan in case of closure and addressing capacity issues.
- Small quantity generators program is essential to reserve capacity for them.
- Appropriations from the Texas Legislature fund the commission although the commission is not a state agency.
- Technical reviews of petitions are done in advance of meetings by Linda Morris and John Salsman.

Waste Future

Most of Vermont's waste has been disposed of; large volumes in the future may be from decommissioning if that progresses, and new kinds and volumes may vary with the advent of small nuclear reactors.

WCS Update

David Carlson President and COO, Waste Control Specialists

Safe Disposal of Low-Level Radioactive Waste

- Class A/B/C LLRW and Mixed LLRW
- NORM, Oil & Gas NORM, and Byproduct material

Compact Waste Facility



Site developed and paid for by WCS and owned by the State of Texas

Compact site inspected by TCEQ 2 on-site inspectors

WCS Update

Shipments

More waste comes by rail than highway.

Highway Transportation

2024 Highway Volume

- 750 shipments
- 4,000 containers
- 600,000 cubic feet (25% of volume)



Rail Access

Direct Rail:

 Texas and New Mexico Railway (TXN) interchange to Union Pacific (UP) at Monahans

Transload to Truck:

- Lubbock and Western Railway (LBWR) interchange to BNSF at Lubbock and transload
- WCS has the infrastructure to support transportation of heavy loads
- Rail lines upgraded to support shipments over 450,000 lbs

Rail Transportation

- WCS has has the only rail line in Andrews County
 - · Operates 3 locomotives
 - · 4-mile rail loop encircles the licensed site
 - 5 miles of owned rail line from site to Eunice, NM
 - Served by two Class 1 railroads (UP and BNSF)
- 2024 Rail Volume
 - 600 shipments
 - 5,000 containers
 - 3,000,000 cubic feet (75% of volume)





WCS - Local Activities

Our Staff Lives in the Community

- Largest private employer in Andrews county
- Over 125 site employees, >\$15 million payroll
- Employees are involved in the community (schools, chambers of commerce, churches, sports, etc.)

Local Engagement

- High School credit course and internships
- Outreach to Andrews and regional communities
- WCS office and staff presence in center of town

Financial Support

- Over \$300 million invested in site and facilities
- Purchase of supplies and services from local companies
- Financial contributions to Community Activities
 - Education Foundation
 - Scholarships, Public Safety, Sports Teams, etc.
- Special Surcharges (5% of LLRW disposal revenue)
 - Paid in addition to all normal taxes and fees
 - Supports quality-of-life community improvements
 - \$20.4 million provided to Andrews County so far

Community Outreach

High school credit course students are invited to take summer internships and jobs thereafter.

Performance Assessment

- ▶ GoldSim-based modeling
- ▶ Integrated PA for entire site examines:
 - site geology
 - surface water and groundwater
 - potential future weather changes
 - residential and intrusion scenarios
 - possible future uses of the land
- ▶ 10,000-year compliance period, evaluated to one million (1,000,000) years
- ► Majority of radionuclides have short half-life (Co-60, Fe-55, etc)
- ➤ Some have longer half-life (C-14, N-63, U-238, Tc-99)
- ➤ Current disposed inventory has a peak dose of **0.5** millirem per year after >10,000 years

DUO2 Cylinder Disposal at WCS in Andrews, TX

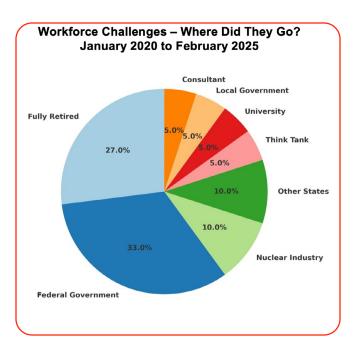


Depleted Uranium (DU)

From enrichment gaseous diffusion process, the remaining depleted uranium requires disposal. Over decades the backlog will be converted and become suitable for disposal.

TCEQ Update

Ashley Forbes Deputy Director, State of Texas Radioactive Materials Division



Uranium Mining in Texas

Banning Russian enriched uranium renewed interest in Texas mining.

Uranium Mining in Texas

In Texas, the uranium industry is regulated primarily by the Railroad Commission of Texas and the Texas Commission on Environmental Quality.

- Texas has 10 active exploration permits through the Railroad Commission of Texas
- 8 Fully licensed and permitted ISR projects which includes satellite plants, wellfields, and/or processing facilities
 - ☐ Uranium Energy Corporation Hobson, <u>Palangana</u>, Goliad, Burke Hollow☐ <u>enCore</u> Rosita, Alta Mesa, Kingsville Dome and Vasquez
 - > Rosita and Alta Mesa are currently in production

Responsibilities

Radioactive Materials Licensing

- · low-level radioactive wastes
- naturally occurring radioactive materials (NORM)

Uranium Licensing & Permitting

- · in situ uranium recovery
- decommissioning and reclamation (UMTRCA Title II sites)

WCS License

Under technical review for renewal for 10 years

WSC LANL Waste Temporary Storage

LANL Transuranic Waste

- U.S. Department of Energy's Waste Isolation Pilot Plant (WIPP) in New Mexico
 - Incident in 2014
 - Transuranic Waste from Los Alamos National Laboratory (LANL TRU) waste diverted to WCS FWF for temporary storage
- LANL TRU waste moved from FWF to on-site storage facility
 - · Waste prepared for offsite transport and disposal at the WIPP
 - Completion projected for December 31, 2026

Legislation Pending

- TCEQ Radioactive Materials Division has analyzed or is otherwise monitoring 44 bills.
 - If passed, these 44 bills will affect the programs and/or resources of the Radioactive Materials Division.

Coordinating with TX-VT Compact

TCEQ reviews import petitions for compliance with the license before they go to the Compact Commission for decision.

ARDT Update

Lone Star State Happenings--A Legislative and Regulatory Update from Texas

Brian Christian

Nuclear Interests in Texas

- Texas Advanced Nuclear Reactors Working Group
- Texas Nuclear Caucus in the Texas Legislature
- Texas Nuclear Alliance
- Uranium Mining Streamlining



Texas Nuclear Legislation Day, April 10, 2025

SENATE RESOLUTION NO. 389

WHEREAS, The Senate of the State of Texas is pleased to welcome employees, advocates, and allies of the nuclear energy industry as they gather in Austin to celebrate Texas Nuclear Legislative Day at the State Capitol on April 10, 2025; and

WHEREAS, Texas is poised to embrace a nuclear energy strategy rooted in reliability, economic growth, and national security that will help to create jobs, attract investment, and secure our state's position as the energy capital of the world and as leaders of the nuclear power renaissance in the United States; and

WHEREAS, Nuclear energy is the most reliable and energy-dense power source available, and a strong investment will ensure Texas leads the transition to cleaner energy, the deployment of nuclear power, and global exports of nuclear technology; Texas' low-tax environment, efficient regulatory structure, and history of energy leadership give our state a unique opportunity to position itself as the epicenter of nuclear innovation and deployment, and by advancing nuclear energy, Texas will lead the way in bringing much-needed pragmatism to our energy future; now, therefore, be it

RESOLVED, That the Senate of the State of Texas, 89th Legislature, hereby recognize April 10, 2025, as Texas Nuclear Legislative Day at the State Capitol and extend to all associated with the nuclear energy industry best wishes for championing this important cause; and, be it further

RESOLVED, That a copy of this Resolution be prepared for the visiting delegation in honor of this occasion.

Pending Legislation

House Bill 14 - Omnibus bill which advances waste recommendations is moving toward House vote.

Senate Bill 2967 hearing revealed more work needs to be done on the bill.

Other bills relate to waste surcharge change and spent fuel storage.

Nuclear Waste and Uranium Mining Related Bills

Senate Bills 1534 and 1535 related to health physics education

House Bill 279 and 1061 realated to streamlining uranium mining

Governor's Interests

- Priority is SMRs
- Objects to interim fuel storage

Urenco Update

Steve Magill, Urenco USA Decommissioning Manager



The only enrichment facility in the U.S.

- Located in southeast New Mexico
- Licensed in 2006 and operating since 2010
- Urenco has invested over \$5 billion in the plant, one of the largest construction projects in New Mexico.

Market



Post Fukushima, a drop in market resulted. Carbon free is driving demand.

Ukraine war and Russian market influenced production needs.

With the war, everyone looking at power sources.

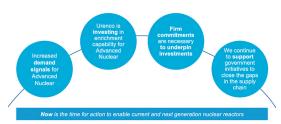
Environmental Stewardship

The TMF, constructed and operated by Urenco ChemPlants manages deconversion of Tails – depleted Uranium Hexafluoride (UF₆) – to stable Uranium Oxide (U₃O₈) and Hydrofluoric Acid (HF).

The responsible management of the byproduct of our enrichment services is crucial to our commitment to uranium stewardship and sustainability.

Urenco USA is currently exploring options for US based commercial deconversion plant.

- R&D efforts are focused on technology development for safely dismantling endof-life centrifuges
- Tails Management Facility doubling in size to support capacity program.



Enrichment Capability

LEU – Most all reactors use up to 5-6% and Urenco is licensed and ready to operate produce up to 10% enrichment.

LEU (up to 5-6%)

- Urenco has produced LEU since the 1970s moving from ~2.5% to 5% over a 20 year period.
- LEU serves the fuel needs of traditional light water reactors (LWR) and gas reactors (AGRs) in addition to most molten salt reactors currently under development. Start-up cores of some advanced reactors also require LEU.

HALEU up to 20%

Driven by advanced reactor design and is the fuel source for advanced reactors.

Facility in the UK will be the first plant, online in 2031.

Same technology but configured differently. Raises security class and requires considerable changes to do this.

HALEU (up to 20%)

- Advanced reactors operate on longer and more efficient fuel utilisation rates. To achieve this, the reactors require a higher concentration of fissile material than traditional LWRs.
- The leading advanced reactor designs therefore require higher enrichment levels of up to 20%.
- The first advanced reactor needs for HALEU are in 2027/2028.
- The first HALEU production at UUK planned in 2031.

Accessing U.S. Disposal Sites

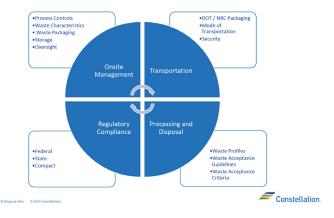
Marc Pawloski, Constellation Energy

Constellation

- Interim on-site storage
- Owns shipping containers
- Waste generation considers disposal
- Ships via truck 99% of the time
- Sometimes ships by rail depending on rail access
- Transportation security for quantities of concern
- Considers burial site capacity when using waste processors



Life Cycle of Radwaste



Common Challenges that Utilities Encounter

- Process Control
 - Supplemental work force
 - Generational shift in workers
 - Unique projects
 - Plant modifications
 - Shipper proficiency

- Accessing Processors
- Limited number of vendors
- Management of the DAW waste stream
- Too reliant

- Transportation
 - Equipment availability
 - Lack of innovation
 - Shortage of qualified drivers
- Accessing Burial Sites
 - Becoming too routine

DOT and NRC Transportation Packages

- It is essential for licensee to safely transport radioactive waste to processors and burial sites.
- Vendor supply the necessary packaging and support material to accomplish that task, however, it's upon the licensee to comply with regulations for their use.
- The DOT establishes the requirements for the transportation of radioactive including packaging in 49 CFR Subpart I.
- Packaging categories include General Design, Industrial Packages, Type A and Fissile.
- The NRC establishes the requirements for the design, manufacture and transportation of NRC licensed packages in 10 CFR 71.



Storage & Decommissioning Fund

Disposal is preferable to storage but some storage of large components occurs for cost reasons. Constellation did submit to NRC to use the decommissioning fund.

Interim Onsite Storage

- Most LLRW gets placed into interim storage prior to offsite shipment.
 - Higher activity waste is typically stored to allow decay and availability of transportation packages.
 - DAW and other low activity waste streams sent to a processor are typically shipped shortly after generation.
- Storage facilities are designed and analyzed based upon NRC guidance in a Safety Analysis Report (SAR). It analyzes
 - Extreme environmental events such as seismic events and tornado.
 - 10 CFR 37 security requirements
 - 10 CFR 20 offsite dose requirements
- Size of storage facilities vary based upon site specific constraints and needs.



Updates from Commercial Disposal Facilities in the United States

Energy Solutions Vern Rogers

- Clive, UT, operating 30 years
- Starting as a DOE site for tailings

The Clive disposal facility is located in the west desert of Utah approximately 75 miles west of Salt Lake City.

Class A LLW, NORM and NARM
No B & C waste
Five square mile site
1.5 million pounds is the heaviest item received.

License applications for changes:

- Federal cell for DU, now a priority
- Renewal, under timely renewal currently
- Low activity cell amendment
- Class A expansion

Staff at state - has new personnel after turnovers

Legislation Governor signed:

Waste class amendments to rectify LLW and HLW with NRC's definitions

Management of waste - to make it more scientific and less political

Republic Services

Hans Honerlah, Manager of Strategic Services

Richland site is the designated host for the Northwest Compact and also serves the Rocky Mountain Compact through an agreement. Licensed in 1965 by Atomic Energy Commission

Class A, B, and C LLW NORM/TENORM/NARM acceptable form Generators nationwide High-activity sealed source capabilities

Volume and Source Term Update

Total Site Volume Disposed

- ~14.5M cubic feet
- · Includes LLRW & NARM

Total Site Source Term

- ~3.7M Curies
- ~1.6M Curies from Co-60 alone (~43%)
- · 600+ manifested radionuclides
- · Not decay corrected

Republic Services has capability through closure in 2056, with disposal opportunities in the future for waste from SMR and rare earth minerals.

Overview of TSUSG

Shannon Morgan, Oak Ridge National Laboratory

The Transportation Security Unified Stakeholders Group (TSUSG) is an integrated group of industry (source producers, carriers, and forwarders), law enforcement, and government representatives with direct and ongoing involvement in the secure transport of radioactive sources within the United States. The group includes 167 active volunteers. Topics include:

- Security planning
- Cyber security
- Regulations
- Training needs
- Escorts

Each year, about 2,000 shipments of radioisotopes—with a combined total activity averaging nearly 60 million curies—are shipped by land, air, and sea all over the United States, engaging nearly every state.

https://tsusg.ornl.gov

EPA and DOE Updates

EPA Office of Radiation and Indoor Air

Jonathon Major

Phosphogypsum

Phosphogypsum (PG) is a byproduct of processing phosphate rock into fertilizer and contains elevated levels of radium-226 and emits radon. One ton of fertilizer results in 5 tons of phosphogypsum (TENORM).



2024: EPA approved pilot study for use in roadbed.

Approval notice published. The Center for Biological Diversity (CBD) filed lawsuit against EPA's decision in February 2025.

WIPP

Approval of two new panels that DOE owns is under review for long term regulation. The decision will come in a couple of months. (NM has already approved.)

MARSSIM Version 2

Revisions completed. Anticipate notice in Federal Register in 2025.

Federal Guidance Report (for Radiation Protection)

FGR-16 (cancer risk coefficients) draft under review

After Advisory Board meeting, additional work needed

FGR-15 (dose coefficients for external exposures) revision nearly complete

Expect final publication of updated report in next few months.

NRC Update Duane White NRC

Part 61 Integrated Rulemaking

submitted to the commission in 2024. No estimate of when they will vote on proposed rule—maybe this year but priorities have changed with new administration.

Financial Assurance

NRC staff preparing Regulatory Basis to expand decommissioning financial assurance (DFA) requirements for Category 1 & 2 (and possibly Category 3) byproduct material sealed sources. The next step would be a public meeting, perhaps in the next month or so.

Decommissioning Rulemaking

has no estimated time frame. Will be a final rule once approved.

Agreement States

NRC continues to work with them but has no IMPEPs (inspections) in FY25.

Radium Site Cleanup

NRC continues work. CT may become an Agreement State this year and then they will handle the cleanup in CT.

Proactive Research

Engineered barriers to limit intrusion of covers are being considered with SWRI.

Uranium Mine Remediation

of abandoned site may result in concentrated source material.

Volume 40 Number 2 March - April 2025 Page 13

Department of Energy

DOE

Amie Robinson

Changes

DOE funding is the same at present, but change could happen anytime. People are changing and shifting around.

Environmental cleanup from nuclear weapons and energy continues.

Study on reuse and disposal on DOE property/facility considered.

Some waste related to spent fuel and high level waste will go to low-level sites.

HLRW

DOE is waiting for everyone else on Part 61 issues.

DU

April 2025 Status	Paducah	Portsmouth	TOTAL	6
Total DU Cylinder Inventory	43,000	19,000	62,000	
DUF ₆ Facility Size	4 lines	3 lines	7 lines	
DUF ₆ Facility Startup	2011	2010		
Conversion/year (capacity)	800	600	1,400	Ι
Converted to date	~5,500	~3,500	~9,000	

Slide source: WCS Presentation

WIMS

2025 update is not ready yet due to review of all contracts throughout the whole of government.

Manifest Data

tracking waiting on update from 2025 – contract under review—info available but not published

DEI issues

Will contracts go away or not be rebid? Unknown at this time.

HLW Yucca Mountain

A lawyer in the General Counsel's office is assigned to this question.

DOE - Sealed

Source Programs

Sam Meyer and Justin Griffin, DOE NNSA

NNSA Sam Meyer

NNSA is still in business and accomplishing the mission. NNSA did have some staffing issues with temporary firings which were reversed in 36 hours.



Sam Meyer

Federal contracts have been reviewed and all will continue (CRCPD SCATR and DSWG). Federal employee travel has been curtailed approximately 85%.

Off Site Recovery

Program

The Off-site Recovery Program focuses on transuranic sealed sources, especially americium sealed sources. Estimates are that there are 39,000, but they are not tracked. Origin of americium is likely from



Justin Griffin

Russia (non-US origin) due to production history.

TRU cannot be buried in shallow land burial sites, so deep geologic repository is required. However, WIPP cannot take foreign origin material. Other issues are that it is difficult to determine what sources are and are not of foreign origin.

Source Security

DSWG Update April 2025 Michael Klebe

The Disused Sources Working Group (DSWG) held its spring meeting on April 11, 2025, in conjunction with the LLW Forum's meeting in Odessa, TX. The Group has experienced some changes in membership with some long-term members retiring and new members coming on board.

Karl Von Ahn, TX Department of State Health Services, gave a presentation about the State of Texas' Two-Year Storage Rule. He discussed the history and implementation of the rule as well as the interaction between the Agency and licensees. A more detailed report on his presentation will be provided in the next issue of the LLW Notes.

Mike Snee is the new liaison from the Conference of Radiation Control Program Directors (CRCPD). Mike gave an update presentation on the CRCPD Source Collection and Threat Reduction (SCATR) program. Sam Meyer, DOE/NNSA, gave an update on current NNSA source collection activities including the cesium

irradiator replacement program.

Duane White, NRC, gave a brief update on NRC activities. The current priority of the NRC is fusion and advanced reactors. The NRC was originally intending to advance three rulemakings related to sealed sources this summer. The Integrated Rulemaking (Part 61) relates to the near surface disposal of greater than Class C wastes, including radioactive sealed sources. This rulemaking is delayed from the proposed May 2025 draft rule publication date. The proposed Decommission Financial Assurance for Sealed and Unsealed Radioactive Materials is also delayed from its proposed April 2025 draft rule publication date. Finally, the Financial Assurance Requirements for Category 1 and 2 Byproduct Material Sealed Sources rulemaking is in the approval process with a possible May 2025 release date for the Regulatory Basis document. This rulemaking is important since at the threshold level for Category 1 sealed sources only a few Category 1 sealed sources require financial assurance. At the threshold level, no Category 2 sealed sources require financial assurance. This rulemaking may also address financial assurance requirements for Category 3 sources. As the NRC releases documents related to these rulemakings, the DSWG will prepare and submit comments.

IAEA's Technical meeting, "Disused Sealed Radioactive Sources Disposal Options in Near Surface Facilities"

Dan Shrum, LLWF Executive Director

I was able to participate in the IAEA's Technical meeting, "Disused Sealed Radioactive Sources Disposal Options in Near Surface Facilities." I gave two presentations. The first one was "Getting to Disposal" and the second was "Development of a WAC for DSRS disposal."

I also was allowed to chair one of the sessions on the use of Performance Assessments to inform decision making.

Panel Discussion - State's Implementation of Proposed 10 CFR

Ashley Forbes, State of Texas, TCEQ

Texas statute prohibits GTCC in near surface sites.

NOTE: Additionally, NRC will need to review for sunset all rules per the current administration, so this issue will be delayed. The rulemaking at NRC started in 2008 and in 2025 went to the commissioners.

Kimberley Noonan, State of South Carolina Division of Waste Management

In 2024, the governor split the program into two groups and discontinued the board which had involvement in rulemaking. The process is "evolving" now. SC is not interest in implementing the Part 61 revisions is adopted by NRC.

Doug Hansen, State of Utah

Utah law only permits acceptance of Class A waste. Classes B and C are prohibited. Utah can allow DU as a stand-alone cell; although the challenge is perpetual management.

Based on the prohibitions, Part 61 changes would not be implemented.

Jason Mickelson, State of Washington Department of Health

Washington is not interested in implementing Part 61 changes in its rules. (Rulemaking takes 6-24 months.)

Southeast Compact Presents Hodes Award to Gary Benda

Gary Benda, Deputy Managing Director and Program Advisory Committee Chair of W M Symposia, Inc., was awarded the Southeast Compact's Hodes Award at the 2025 Waste Management Symposia. He serves the non-profit organization dedicated to providing education and information exchange on global radioactive waste management. In his role, he supports technically sound and cost effective solutions to the management and disposition of radioactive wastes and the decommissioning of nuclear facilities to enhance the transparency and credibility of the global radioactive waste industry.



Tom Hansen, Southeast Compact Executive Director, presenting the Hodes Award to Gary Benda.



Gary Benda

The Southeast Compact solicits nominations for the 2026 Hodes Award at https://www.secompact. org/hodes-award/

Appalachian Compact

Delaware • Maryland •
Pennsylvania • West Virginia

Meeting

The compact is expecting increases of shipments as TMI 2 is being decommissioned. Low activity waste will go to Energy *Solutions* Clive and B&C waste will ship to WCS in Texas. FUSRAP waste from a 44 ac site in the 1960-70s will be removed to Utah. TMI 1 restoration is expected by 2028.

Central Midwest Compact Illinois • Kentucky

The commission is revising the regional management plan, has new technology coming on line, and is interested in nuclear economics and development of workforce.

Illinois will site a SMR on the University of Illinois campus soon.

Rocky Mountain Compact

Colorado • Nevada • New Mexico

Southwestern Compact

Arizona • California • South Dakota • North Dakota

Meeting

There will be a virtual meeting in June. Some enforcement actions are pending and a fiscal rule update is coming. Southwestern Compact has approximately 2000 materials licensees and 10% exports in a year. San Onfre decommissioning is ongoing. More than 1 million cu. ft. shipped this year.

Northwest Compact

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

Texas Compact

Texas • Vermont

Utah has had a busy legislative session with a cleanup bill to align definitions of waste and some requirements for new facilities to incorporate the political process. SMRs are becoming of interest.

Meeting

Thursday, October 9, 2025 via Zoom Meeting webinar and in person in Montpelier, Vermont at 10 am EST.

Southeast Compact

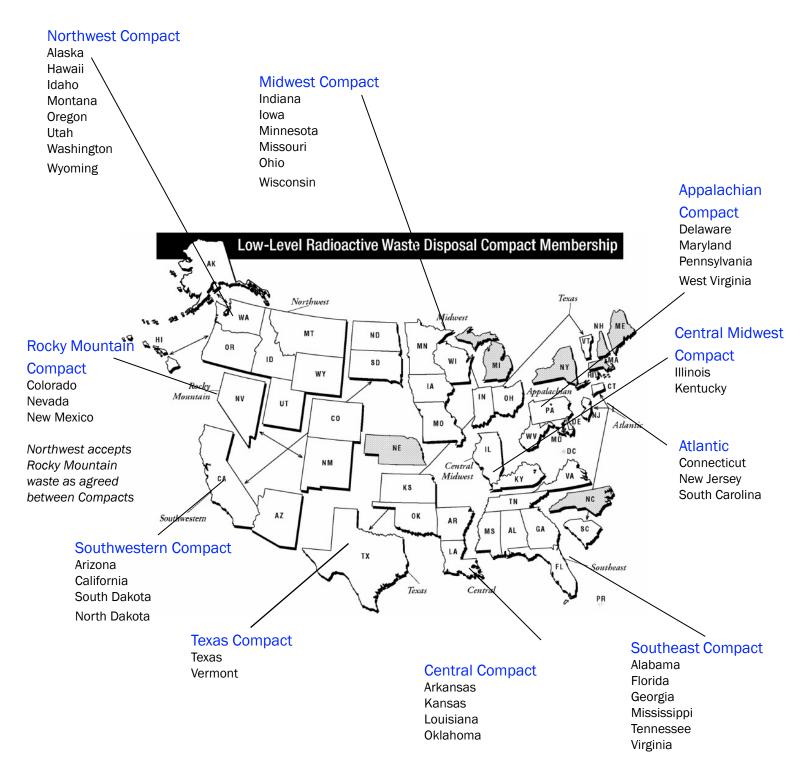
Alabama • Florida • Georgia • Mississippi • Tennessee • Virginia

Unaffiliated States

The compact is expecting fusion online in the 2020s-2040s, and SMRs. Now there are 24 reactors in the compact. The Compact recently announced the 2025 Hodes Award and is Hodes and soliciting new nominations for the 2026 award. See page 17.

New York

New York is working on advanced nuclear development, including SMRs, and workforce development.



Unaffiliated States

District of Columbia

Maine

Massachusetts

Michigan

Nebraska

New York

North Carolina

Puerto Rico

Rhode Island

New Hampshire

Membership details available at llwforum.org/membership/

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) listserver@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 https://
- H Ilwforum.org/

ф

ᆈ

丩

Acknowledgment & Disclaimer

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

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



Copyright Policy

All LLWF materials are copyrighted and for permission to use or reproduce, please send your request to the Daniel B. Shrum

Executive Director,
dshrum@llwforum.org