LLW *notes*

Volume 40 Number 4 July - August 2025

A Message from Dan Shrum, Executive Director

We are honored that NRC Chairman David A. Wright will be our keynote speaker for our upcoming October Forum meeting to be held in Baltimore, MD.
Please sign up and reserve a room.

Daniel B. Shrum, Executive Director

See page 3 for registration links and information.

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

In this Issue...**Find updates on the progress on President Trump's Executive Orders regarding nuclear issues, details of the Texas Two-Year Storage Rule, transportation topics, and announcement of the Fall 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.

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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
TENORM	Technologically enhanced naturally occurring radioactive material

Contents

Forum Focus

Fall Meeting

Baltimore, Maryland
October 15-16

and

Disused Source Working Group
Meeting October 17, 2025

Sign up for our NOW

Click here to register.

Click here to reserve a room.

Disused Sources Working Group

Texas Two-Year Storage Rule

Summary by Michael Klebe

At the April DSWG meeting, Karl Von Ahn, Texas Department of State Health Services, made a presentation on the Texas Two-Year Storage Rule and how it was implemented. The following is a summary of his presentation.

Basics of the Rule

The radioactive material storage rule comes out of our standard radioactive materials licensing rules, which is 25 TAC 289.252(x)(11), and became effective in March of 2016. They implemented a two-year enforcement discretion period where they did not issue any violations for individuals for the first two years. This was to allow licensees time to comply. Inspectors went out and interacted with the licensees. **If the source has not been used, the licensee had to either plan for future use or start looking at disposal options.**

The radioactive materials storage rule is an extension of existing rules. **Generally licensed devices and gauges cannot be in storage for more than two years.** However, that rule does not extend to radioactive materials licenses, specifically specific licenses. This extension is also related to site decommissioning requirements; it fills a gap from when a site is still being used for principal activities listed under a license and addresses a disposal component.

Parts to the Rule

There are four parts to this rule:

- it specifies the types of radioactive materials and the time limit for the storage
- it allows for future use
- it allows for alternative disposal time frames
- it also includes a planned submission time frame

This rule allows a license reviewer to review it and decide rather than implementing a hard and fast rule.

Specifics of the Rule

The rule says licensees must not hold radioactive waste, sources, or devices not authorized for disposal by decay in storage with half-life greater than 120 days and for not in use for longer than 24 months following the last principal activity, use.

Sources and devices kept in standby for future use may be excluded from the 24-month time frame if the department approves a plan for future use. **This prevents licensees from holding on to radioactive waste for longer than 24 months.**

How the Rule Works

Licensees can submit plans for an alternative disposal time frame if the time limit cannot be met provided the plan is submitted 30 days prior to the end of the 24-month period of non-use. The Department keeps track of the licensee's commitments and holds them accountable. Licensees will typically look at extended waste storage as not a concern. However, it is important to make sure that there is no loss of control, occupational or public exposure, spills, or unauthorized disposal.

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Texas Two-Year Storage Rule - continued

Licensed Principal Activities

The radioactive material license identifies authorized activities for the use of radioactive materials. These activities are essential to achieving the purpose for which the license was issued. **Having radioactive material that is not accessed for use or disposal is not a principal activity.** The Department is sensitive to the fact that sealed sources can be expensive to obtain and to dispose of. But, if the licensee is not using it for the purpose for which they are licensed, it is then not a principal use activity. **If the facility is undergoing decontamination or decommissioning, those are not principal use activities either.**

Within the rule, it says that within 60 days, the licensee must provide notification and either begin decommissioning of the outdoor area or separate building so that they are suitable for release when:

- The licensee has decided to cease principal activities at the entire site or any separate building or outdoor area;
- No principal activities that the entire site specified under license have been conducted for a period of 24 months; or
- No principal activities have been conducted for a period of 24 months in any separate building or outdoor area containing residual radioactivity.

Requirement to Dispose of Radioactive Source or Devices

The rule requires disposal of radioactive waste sources or devices no longer used for more than 24 months. **The rule is radioactive specific and not location specific, so it changes the focus to the unused and unwanted radioactive materials as opposed to decommissioning a site.** It also precludes legacy waste, source, and device issues encountered during site termination or decommissioning processes. **One of the biggest headaches for some of these decommissionings and site terminations is if somebody decides to declare bankruptcy or go belly up or suddenly decides that they are going to just disappear. So, this rule helps make sure that there's not too much waste on site. We've had occasions when somebody has taken off and the department had to front up the money to pay for the disposal of abandoned waste.**

Standby for Future Use Approvals

For the Department to approve standby for future use, the licensee is going to have to submit to the license reviewer for a license amendment because approval is granted as a license amendment. **The licensee has to submit that they have a definite plan for future use and will need to present a time frame or specific principal activity use.** The Department will look at the proposed time frames and the principal activity used to see if it's reasonable. Licensees requesting an alternative disposal time frame will need to submit a license amendment request identifying the disposal time frame issues and how the licensee proposes to address them. This is likely associated with sources or devices that may not have readily available disposal options or radioactive material that's contaminated with hazardous material. These license amendment requests must be submitted 30 days prior to the end of the 24-months of principal activity nonuse period.

Standby Approvals

If the request is approved, the Department will issue an amended license with license conditions specific to the requested items. The license condition will likely be limited to the specific proposed time frame submitted in the application. It could be one to two years. Sometimes a licensee may have to request an additional extension from that. **Under certain circumstances, it could be that the license conditions may be open-ended under cyclical businesses. These are typically well-logging companies whose activities mirror the cycles of the oil industry.**

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Texas Two-Year Storage Rule - continued

For the time limited condition, the Department has a standard template license conditions which goes into the fact that the licensee is granted an extension to keep in standby for future use and the items identified in the correspondence stated beyond the 24 months. The licensee must submit documentation of the use, transfer to another licensee, or dispose of the identified materials prior to a given date. This is where it must be time limited. This does not allow for speculative future use.

The Department has an open-ended license condition where the licensee is approved to keep in standby for future use of the sources or devices identified in the application. This is typically used for cyclical businesses.

Denial of Request

The Department has had cases where the request was denied. **In those cases, the licensee is notified in writing of the decision to deny the amendment request and they'll be notified of their requirement to dispose of or otherwise transfer the radioactive material identified in the request.** The Department hasn't had anybody contest the decision where we had to go through the legal enforcement processes for forcing somebody to dispose of something. So it's been an easy compliance issue so far.

Circumstances for Approvals

This radioactive material storage rule result is that the Department has granted approvals for various reasons. **For academic licenses, these are typically sealed sources or vials. This is usually associated with waiting for a new research grant or a new faculty.** The licensee is looking at the cost of disposal and reacquisition of replacement if they have new people coming in or a new grant comes in. So that's when the Department will grant a time-limited extension.

On the corporate side, this typically includes sealed sources. They're in storage for a lull in the business cycle. They can have storage pending installation. Some refineries or other production areas don't always shut down in a timely manner. A licensee may have ordered a new gauge but can't install it until the next scheduled shutdown. So that would be considered storage pending installation. Another example of storage pending future use may be a manufacturer that has an inventory of sealed sources that are in storage until somebody needs a particular device. The manufacturer will end up using it.

Implementation Period

The Department had a two-year implementation period that allowed for licensees to begin disposing of radioactive material. There were some that had issues related to disposal scheduling, getting sources registered and disposed of through the SCATR program, or acquiring funding for disposal. Current violations include the need to update the licensee request for future use. The inspectors will check the storage extension and license condition dates on the license, so that is one of the purposes of putting these dates. Portable gauge users are an example. They happen to have some excess portable gauges sitting around that they didn't use or dispose of. The inspector reviews inventories and usage during the inspection. Sometimes the business uses may have changed a bit or may have shifted in terms of how the sources are used. Now they no longer used them or no longer need them, or have found non-radioactive ways to do things. But the radioactive material still sits around.

Summary of Key Points

- Licensee must dispose of radioactive material waste, sources or devices that have not been used in the past two years.
- Licensee may request exclusion from the 24-month requirement of future use of sources and devices or alternative disposal time frames.
- Storage rule is in place for public health and safety purposes.

Nuclear Regulatory Commission Statement to Stakeholders

Related to Ordering the Reform of the Nuclear Regulatory Commission

The NRC has failed to license new reactors even as technological advances promise to make nuclear power safer, cheaper, more adaptable, and more abundant than ever. Executive Order 14300

The NRC's three Commissioners recently released a joint statement expressing their alignment and commitment to working collegially to lead the agency. Consistent with recent White House Executive Orders and the bi-partisan ADVANCE Act, **the NRC is taking bold steps to embrace innovation, accelerate licensing timelines, and modernize the regulatory framework. Recent actions and accomplishments include:**

- Adopted innovative approaches to complete recent new reactor reviews ahead of schedule and under budget, updating schedules for ongoing new reactor and license renewal reviews to reflect the 18- and 12-month deadlines detailed in EO 14300. For example, NRC recently established an 18-month review for Dow's Project Long Mott advanced reactor design, set a 17-month review for a construction permit for Tennessee Valley Authority's Clinch River small modular reactor, and accelerated the construction permit review of TerraPower's Kemmerer Power Station by 6 months.
- Published the fiscal year 2025 final fee rule reducing hourly rates for advanced nuclear reactor applicants and pre-applicants for certain activities, as required by Section 201 of the ADVANCE Act.
- Provided direction on factory fuel loading of micro-reactors, resolving key policy issues for micro-reactor deployment.
- Issued service life extensions for VC Summer and Perry Nuclear plants, ahead of schedule and under budget. Altogether we've renewed operating licenses for 97 reactors and approved second extended licenses for 13 more—preserving 2,200 years of reactor operating capacity to meet the country's energy needs.
- Published a direct final rule in the Federal Register to extend Design Certification durations from 15 to 40 years.
- Refocused ACRS reviews to concentrate on only novel and noteworthy issues.

Today's NRC remains focused on protecting public health and safety while efficiently regulating the civilian use of nuclear materials and enabling the deployment of nuclear power for the benefit of society. We look forward to working with all stakeholders, and meeting this moment with the urgency it demands and the unity it deserves, while continuing to set the standard as a world class regulator.

Source: NRC News Release No: 25-042
July 14, 2025
Contact: Office of Public Affairs,
Telephone: 301-415-8200

David Wright, Chairman of the Nuclear Regulatory Commission (NRC), was confirmed by the Senate for a new term on July 29, 2025. This confirmation comes after his previous term expired in late June. The Senate voted 50-39 to confirm his nomination.

Related to Ordering the Reform of the Nuclear Regulatory Commission- continued

Reforming the NRC's Culture
NRC's mission shall include facilitating nuclear power while ensuring reactor safety.

Reactor Stakeholder Meeting

The purpose of these periodic Advanced Reactor Stakeholder Meetings is to share information and discuss topics related to the licensing and regulation of advanced reactors with the nuclear industry and other stakeholders. This meeting will be a hybrid meeting and use Microsoft Teams.

08/28/25 - 10:00AM - 2:30PM ET

https://www.nrc.gov/pmns/

Louisiana Energy Services, LLC – Approval of Urenco USA License Amendment Request To Raise Enrichment Limit To The Licensed Limit For Low-Enriched Uranium Plus Recycling And Support Systems (Lar 24-01)

The NRC Nuclear Regulatory Commission (NRC) approval of a license amendment request (LAR) to its special nuclear materials (SNM) license (SNM-2010). In a previous UUSA LAR (LAR 23-02), UUSA requested and was granted approval to increase the enrichment level for production systems from 5.5 weight percent Uranium-235 (U-235) to less than 10.0 weight percent U-235. The increase of the enrichment limit from 5.5 weight percent to less than 10.0 weight percent U-235 is termed low-enriched uranium plus (LEU+) by UUSA.

https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML25196A451

Reforming and Modernizing the NRC's Regulations

NRC Pilots Risk-informed Inspection Changes at Uranium Conversion Plant

Leveraging recent inspection experience and analyses, the NRC is piloting a more targeted approach to inspections at Honeywell's Metropolis Works uranium conversion plant in Metropolis, Illinois. ..... This idea came from NRC Region II inspectors, who identified an opportunity based upon updated risk information and the NRC's many years of inspection experience. Agency headquarters approved the implementation of this trial program following a thorough assessment and determination that it would not diminish plant safety. ....At the end of the year, the NRC will assess the program to inform future allocation of inspection resources at Honeywell and potentially at other facilities. The change is anticipated to result in a potential 25% savings in inspection resources in 2026, and, assuming the pilot is extended, could yield as much as a 40% savings overall for the three-year inspection cycle.

This pilot program is one example of the NRC's efforts to **modernize the oversight framework** without reducing safety. Innovations such as this can aid in improving efficiency of the NRC's oversight and ensuring that resources are devoted to activities commensurate with their potential risks.

Source: NRC - News Release
No: 25-044 July 21, 2025
Contact: Maureen Conley, 301-415-8200

Relating to Reinvigorating the Nuclear Industrial Base

The Nation's nuclear fuel cycle infrastructure has severely atrophied, leaving the United States heavily dependent on foreign sources of uranium as well as uranium enrichment and conversion services. These trends cannot continue. Executive Order 14302

Energy Department to Establish New Consortium for Nuclear Fuel Supply Chain

New consortium to leverage Defense Production Act to strengthen U.S. nuclear industrial base and reduce dependence on foreign sources of enriched uranium

Washington — The U.S. Department of Energy's (DOE) Office of Nuclear Energy **took a major step forward in strengthening domestic nuclear fuel cycle supply chains.** In accordance with President Trump's Executive Order, Reinvigorating the Nuclear Industrial Base, DOE is establishing the Defense Production Act (DPA) Consortium and will seek voluntary agreements with U.S. companies. **Today's action takes affirmative steps to increase fuel availability, provide more access to reliable power, and end America's reliance on foreign sources of enriched uranium and critical materials needed to power the nation's nuclear renaissance.**

"There are major gaps in our nuclear fuel cycle infrastructure that leave the United States heavily dependent on foreign sources of enriched uranium," said Acting Assistant Secretary Mike Goff. "By leveraging authorities in the Defense Production Act, DOE is able to take swift action to bring all parties to the table to accelerate our path toward a more secure and independent energy future."

Under the DPA Consortium, voluntary agreements will allow industry consultation to develop plans of action to ensure that the nuclear fuel supply chain capacity for mining and milling, conversion, enrichment, deconversion, fabrication, recycling and reprocessing is available to enable the continued reliable operation of the nation's reactors.

DOE issued an interim final rule that will be published in the Federal Register and is seeking public comment on the standards and procedures that the Department will use to execute voluntary agreements under DPA section 708, which provides a defense from antitrust laws when certain criteria are met. The interim rule will be effective 30 days after the date of publication. Public comments must also be submitted within the 30-day timeframe.

DOE's Office of Nuclear Energy will be working with industry participants in the coming weeks to identify participants as well as near and long-term goals.

The first meeting of the DPA Consortium is October 14, 2025.

Companies interested in joining the DPA Consortium should send an email to DPAConsortium@nuclear.energy.gov.

The request submitted should explain their involvement in the nuclear fuel cycle and interest in partnering with DOE, along with the name(s) of your representative, email, and phone number.

Membership requires approval by the Office of Nuclear Energy. Interested parties may register more than one individual.

The DPA Consortium will operate separately from currently appropriated low-enriched uranium and high-assay low-enriched uranium procurement and allocation programs but may inform future programmatic efforts.

Links:
DPA Consortium Federal Register Notice
DPA Consortium Page

Relating to Reinvigorating the Nuclear Industrial Base

STRENGTHENING THE DOMESTIC NUCLEAR FUEL CYCLE

Develop a plan to expand domestic uranium conversion capacity and expand enrichment capabilities sufficient to meet projected civilian and defense reactor needs for low enriched uranium (LEU), high enriched uranium (HEU) and high assay, low enriched uranium (HALEU).

Advanced Reactors and HALEU Fuel Cycle Workshop Announcement

The workshop, the second in a series co-hosted by NRC and DOE, will discuss their collaboration initiated by the 2020 Energy Act and funded by the Inflation Reduction Act. This collaboration aims to develop publicly available data to help the NRC reduce uncertainty in approving commercial-scale facility and transportation operations for the HALEU fuel cycle. **Recent executive orders have mandated rapid deployment of advanced nuclear reactors and supporting infrastructure.** The project will support industry innovation and reduce uncertainty in assessing HALEU fuel cycle operations. The workshop will review ongoing activities from the first DNCSH call for experiment and analysis work packages (EAWs), identify potential HALEU validation gaps, and collect feedback for the second call for EAWs focused on HALEU fuel cycle facility operations.

08/27/25 - 1:00PM - 4:00PM ET

Contact:
Drew Barto
(301) 415-6941

Energy Department Turns Liabilities Into Assets — Unleashing a New Nuclear Renaissance

PADUCAH, Ky. — The U.S. Department of Energy (DOE) announced the signing of a lease with General Matter LLC for the reuse of a 100-acre parcel of federal land at the former Paducah Gaseous Diffusion Plant **for a new private-sector domestic uranium enrichment facility that is ushering in a new nuclear renaissance for the nation**.

"Leveraging the resources of the former Paducah Gaseous Diffusion Plant, including its skilled nuclear workforce and existing infrastructure, **is unlocking private funding and fast-tracking commercial licensing activities,"** DOE Office of Environmental Management Principal Deputy Assistant Secretary Roger Jarrell said. "The administration's commitment to reducing barriers for American energy development is enabling the Office of Environmental Management to transform liabilities into opportunities, unleashing American energy, supporting national security and enabling U.S. innovation and jobs."

General Matter is an important component to jumpstart fuel-line development and rebuild America's nuclear fuel production base. General Matter is one of four companies DOE selected in October 2024 to provide enrichment services for the establishment of a U.S. supply of high-assay low-enriched uranium. Building domestic supply chains is critical to the reshoring and domestic expansion of energy for advanced manufacturing and artificial intelligence data centers.

The lease provides General Matter with a minimum of 7,600 cylinders of existing uranium hexafluoride to supply fuel for future reenrichment operations. Reprocessing of uranium hexafluoride saves the American taxpayer about $800 million in avoided disposal costs. And General Matter benefits from a consistent supply of U.S.-origin uranium hexafluoride feed suitable for reenrichment.

General Matter's construction is expected to begin in 2026 with uranium enrichment operations planned for 2034. **This privately funded nuclear fuel reprocessing is critical to national security reactors, commercial power reactors and research reactors.**

EM Newsflash, August 5, 9:04 AM

Relating to Reinvigorating the Nuclear Industrial Base

Preparing for Tomorrow's Energy Demands

Powerful imperatives drive the continued need for nuclear power, among them the need for reliable, baseload electricity and the threat of global climate change. As the only large-scale source of nearly greenhouse gas-free energy, nuclear power is an essential part of our all-of-the-above energy strategy, generating about 20 percent of our nation's electricity and more than 60 percent of our low-carbon energy.

Organizing Research and Development

To achieve its goals and objectives and to provide policymakers the tools to make informed decisions, the FCT program has established five R and D campaigns:

Fuel Cycle Options is developing systematic, transparent, and objective processes to screen and evaluate a wide variety of proposed fuel cycles to identify potential solutions.

Advanced Fuels supports both **exiting and next-generation reactors by developing accident-tolerant light water reactor fuel and advanced proliferation-resistant fuels for sustainable fuel cycles.**

Separations and Waste Formsis developing innovative processes to **recover uranium and other materials from UNF while improving proliferation resistance, reducing losses, and minimizing waste. This campaign also seeks transformational breakthroughs in waste forms suitable for geologic repository environments.**

Used Fuel Disposition is **building the scientific foundation and technology for long-term interim storage, transportation, and permanent disposal of UNF and HLW.**

Material Protection, Control, and Accountability Technologies supports **security and safeguards by developing tools and techniques to prevent the misuse of nuclear material.**

Source: https://www.energy.gov/ne/fuel-cycle-technologies

Energy Department Announces Actions to Secure American Critical Minerals and Materials Supply Chain

The U.S. Department of Energy announced its intent to issue notices of funding opportunities totaling nearly $1 billion to advance and scale mining, processing, and manufacturing technologies across key stages of the critical minerals and materials supply chains.

August 13, 2025

https://www.energy.gov/articles/energy-department-announces-actions-secure-american-critical-minerals-and-materials-supply

Critical Minerals and Materials Accelerator

The Advanced Materials and Manufacturing Technologies Office expects to release a NOFO of up to $50 million early this fall through the Critical Minerals and Materials (CMM) Accelerator program. The CMM Accelerator promotes technology maturation that can unlock capital investments and facilitate domestic commercialization.

Mines & Metals Capacity Expansion – Piloting Byproduct Critical Minerals and Materials Recovery at Domestic Industrial Facilities

The Office of Fossil Energy and Carbon Management is announcing its intent to issue a NOFO to support approximately $250 million of financial assistance for American industrial facilities that have the potential to produce valuable mineral byproducts from existing industrial processes.

Relating to Reinvigorating the Nuclear Industrial Base

Rare Earth Elements Demonstration Facility

The Office of Manufacturing and Energy Supply Chains (MESC) is announcing its intent to issue a NOFO of up to $135 million to enhance domestic supply chains for rare earth elements (REEs). **The goal of this initiative is to reduce America's dependence on foreign sources of REEs by demonstrating the commercial viability of methods for domestically refining and recovering REEs from mine tailings, deleterious material, and waste streams.** An academic partner is required as a part of the project team and an award requires a cost-share of at least 50% by the recipient.

Battery Materials Processing and Battery Manufacturing and Recycling Grant Program

MESC is announcing its intent to issue a NOFO of up to $500 million to expand U.S. critical mineral and materials processing and derivative battery manufacturing and recycling. The proposed funding opportunity supports demonstration and/or commercial facilities processing, recycling, or utilizing for manufacturing critical materials which may include traditional battery minerals such as lithium, graphite, nickel, copper, aluminum, as well as other minerals that are contained within commercially available batteries, **such as rare earth elements.** An award requires a cost-share of at least 50% by the recipient.

Recover Critical Minerals from Industrial Wastewater

The Advanced Research Projects Agency-Energy (ARPA-E) is planning to announce project selections for its $40 million program to develop technologies to recover critical minerals from industrial wastewater early this fall. ARPA-E's Realize Energy-rich Compound Opportunities Valorizing Extraction from Refuse waters (RECOVER) program aims to enable the U.S. to reduce its dependence on critical mineral imports and replace them with secure, domestic sources. Significant amounts of critical minerals exist in domestic wastewater systems, untreated and discarded. RECOVER technologies complement more traditional mining operations to access these materials and potentially meet a significant portion of America's needs using supplies that might otherwise go to waste.

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Idaho Cleanup Project Spent Nuclear Fuel Facilities Undergo Substantial Upgrades

IDAHO FALLS, Idaho — The U.S. Department of Energy (DOE) Office of Environmental Management (EM) Idaho Cleanup Project (ICP) **is modernizing operations and security at two spent nuclear fuel facilities licensed by the U.S. Nuclear Regulatory Commission.**

The efforts to upgrade infrastructure at the two facilities is part of EM's work to address the legacy of the past while supporting national security....

The first EM facility undergoing improvements, located at the Idaho National Laboratory (INL) Site, **is the Independent Spent Fuel Storage Installation (ISFSI), where spent nuclear fuel debris from the 1979 Three Mile Island Unit 2 accident in Pennsylvania is stored.**

Efforts to upgrade infrastructure at the Fort St. Vrain spent nuclear fuel facility in northern Colorado included construction of a new guard building.

IEC also manages the Fort St. Vrain (FSV) ISFSI located in northern Colorado. It was established following the shutdown and decommissioning of the Fort St. Vrain Generating Station, a gas-cooled reactor that operated from 1979 to 1989. The site has since been converted to a natural gas-powered generating station, but much of the spent nuclear fuel remains in temporary storage in the nearby ISFSI.

Contributor: Erik Simpson
Source: EM Update
Vol. 16, Issue 23 | Aug. 12, 2025

Crews Find Solution to Improve Spent Nuclear Fuel Processing at SRS

AIKEN, S.C. — Workers at the Savannah River Site (SRS) have demonstrated their resourcefulness and unique capabilities by **implementing a newly created carrier to transport spent nuclear fuel, reducing the time needed to process the material for permanent disposal in coming years.**

Engineers and operators of an underwater basin at SRS where the fuel is stored recently redesigned carriers used to transport and store a special type of the material. The carriers now have a different material alloy, or aluminum, which more easily dissolves, reducing the time needed for fuel disposition in the site's H Canyon chemical separations facility.

Spent nuclear fuel from the High Flux Isotope Reactor (HFIR) at Oak Ridge National Laboratory in Tennessee is sent to SRS to be processed for eventual disposal. HFIR is the highest flux reactor-based source of neutrons for research in the U.S. using highly enriched uranium.

The new-style High Flux Isotope Reactor spent nuclear fuel carriers have a slightly thinner bail made of a more easily dissolvable alloy than the previous bail.

HFIR fuel is shaped differently than other types of spent nuclear fuel. The HFIR fuel has the form of a cylindrical core rather than a long tube, or bundle....

Contributor: Lindsey MonBarren
EM Update
Vol. 16, Issue 20 | July 22, 2025 Cleanup

Radioactive Waste Transportation

Los Alamos Completes 200th Transuranic Waste Shipment to WIPP

LOS ALAMOS, N.M. — The U.S. Department of Energy Environmental Management Los Alamos Field Office (EM-LA) legacy cleanup contractor at the Los Alamos National Laboratory (LANL) completed its 200th shipment of transuranic waste to the Waste Isolation Pilot Plant (WIPP) for safe disposal earlier this month.

The 200th shipment consisted of three standard waste boxes containing segments of corrugated metal pipes (CMPs) formerly buried at Area G in LANL's Technical Area 54. The CMPs contained cemented radioactive liquid waste from a former LANL radioactive liquid waste treatment facility that operated during the Cold War era. In 2024, Newport News Nuclear BWXT-Los Alamos LLC (N3B) completed work to retrieve and size-reduce the set of 158 CMPs, and began shipping them to WIPP earlier this summer.

"Reducing the inventory of transuranic waste here at LANL is one of the most visible aspects of our entire legacy cleanup mission and an important priority for the pueblos and stakeholders of northern New Mexico," EM-LA Manager Jessica Kunkle said. "I want to congratulate all those at N3B who played a role in reaching this milestone. We still have more work ahead of us, and our focus remains on safely reducing the remaining inventory of legacy waste."

EM-LA and N3B manage transuranic waste produced during LANL's legacy nuclear weapons research and production operations. That waste consists of materials such as protective clothing, tools, equipment, soil and debris contaminated with elements heavier than uranium, including plutonium or americium.

Since beginning shipments in October 2018, N3B has sent more than 665 cubic meters of transuranic waste — or about 3,194 55-gallon drums — from Technical Area 54 to WIPP.

"Our 200th transuranic waste shipment represents tangible progress in one of the core areas of our work at LANL," N3B President and General Manager Brad Smith said. "I'm proud of all those at N3B who played a role in getting us to this point. There's more to be done, and the N3B workforce's ongoing emphasis on safety and operational excellence will continue to be critical as we work to address the remaining legacy waste at LANL."

-Contributor: Michael Nartker
EM Update
Vol. 16, Issue 24 | Aug. 19, 2025

IAEA Deadline Extended Call for Papers: Conference on Transport of Nuclear and Radioactive Material

The deadline for interested contributors to submit synopses for the IAEA's International Conference on the Safe and Secure Transport of Nuclear and Radioactive Material has been extended to 30 September 2025. https://www.iaea.org/newscenter/news/deadline-extended-call-for-papers-conference-on-transport-of-nuclear-and-radioactive-material

Radioactive Waste Transportation

The Need for a Package Performance Demonstration Program at DOE

by Rich Janati, MS, Administrator, Appalachian Compact Commission

I have compiled the following key points to inform LLW Forum members about the importance of a Package Performance Demonstration (PPD) Program and the critical elements it should include. This overview draws on my direct experience with DOE's National Nuclear Security Administration. I was involved in the planning and oversight of shipments of radioactive materials, both solid and liquid, as well as spent nuclear fuel from Chalk River, Canada, through Pennsylvania to the Savannah River Site. It also reflects feedback I provided in response to DOE's request for input on the PPD program. While DOE's PPD program targets high-level radioactive waste and spent nuclear fuel, a successful demonstration could also enhance public confidence in shipments of all radioactive materials, including low-level radioactive waste.

Safety Assurance and Environmental Protection

PPD helps ensure that the packaging systems used for transportation can withstand severe accident scenarios without releasing dangerous levels of radiation or radioactive materials. This is critical for protecting public health, the environment, and transportation workers.

Compliance with Regulatory Requirements

Various domestic and international agencies have stringent packaging design standards that must be met. PPD provides a real-world validation that packaging systems comply with these requirements.

Public and Stakeholder Confidence

Showing that packaging is safe through a PPD helps build public trust, especially in communities along transport routes that are concerned about the risks of radioactive material shipments. DOE builds trust by providing clear reporting, allowing independent reviews, and offering real-time access to the public and media. As part of broader outreach, NNSA benefited greatly from publicly displaying the transport containers used for the Canadian shipments, as the displays increased understanding and helped gain support from local governments and emergency responders along the routes.

Continuous Improvement and Risk Management - PPD provides critical data on packaging performance under various conditions, allowing DOE to identify and address vulnerabilities early and improve designs before any incident occurs.

Economic Justification

While conducting a PPD may require upfront investment, it is far more cost-effective than facing the greater financial consequences and public backlash from a serious accident including cleanup, legal liabilities, and loss of trust.

Support for Long-Term Management of Radioactive Waste

Reliable transportation is key to the safe handling and disposal of radioactive waste. Conducting a PPD ensures DOE can safely move radioactive waste to interim storage facilities or long-term disposal sites.

Summary

In summary, the successful implementation of the PPD program can enhance stakeholder confidence and ensure the long-term credibility of the safe transport of radioactive materials. The waste management community can support DOE's PPD program by sharing real-world experience, providing constructive feedback, and building trust with stakeholders.

Rich Janati, MS, Administrator,
Appalachian Compact Commission

Advanced and Small Modular Reactors

Technical White Paper: State Regulation of Fusion Machines

CRCPD has published ***Technical White Paper: State Regulation of Fusion Machines***. This paper reviews key regulatory issues related to the commercial deployment of fusion machines, outlines available guidance, recommends radiation safety considerations, and—where possible—highlights best practices for regulating these technologies. It is intended to supplement guidance from the Nuclear Regulatory Commission (NRC) for regulating byproduct material used or produced by fusion machines.

The report notes that radioactive wastes could be disposed via pathways similar to those of cyclotron produced waste; however there is uncertainty about volumes and costs pending more information about fusion operations.

https://crcpd.org/wp-content/uploads/2025/08/25-2-Technical-White-Paper-State-Regulation-on-Fusion-Machines.pdf

NRC Sets Review Schedule for Clinch River Construction Permit Application

The Nuclear Regulatory Commission staff has accepted for review a construction permit application from Tennessee Valley Authority for a BWRX-300 small modular reactor at the Clinch River site in Tennessee. The staff expects to complete its review within 17 months. More information about the Clinch River review is available on the NRC website.

Source: NRC News Release No: 25-004 July 10, 2025

Contact: Maureen Conley, 301-415-8200

Mayors Reflect on Hosting Nuclear Facilities

The IAEA hosted the world's first major gathering of communities with nuclear facilities, with scores of mayors and other local representatives from around the globe, including indigenous peoples, sharing their experiences and insights.

Rebecca Casper, Mayor, City of Idaho Falls, United States of America

"My city of Idaho Falls owns and operates its electric utility, integrating hydropower, wind, geothermal, and emerging hydrogen technologies. **We are now planning to add micro-reactors.** As policymakers, we study complex energy markets, transmission and regulations, all so we can provide reliable, cost-effective power to our citizens. And they in turn support nuclear because it offers safe, reliable, carbon-free, baseload energy. **Advanced reactors are the path forward securing our community's energy future while keeping costs low for generations to come."**

Source: https://www.iaea.org/newscenter/news/mayors-reflect-on-hosting-nuclear-facilities

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Commentary: Balancing Guidance and Regulation

by Rich Janati, MS, Administrator, Appalachian Compact Commission

In the regulatory world, rulemaking is often the primary approach for addressing technical or policy challenges. While it plays a critical role in establishing enforceable requirements, it is not always the most practical or efficient solution. In some cases, guidance can provide an effective alternative, enabling regulatory agencies to respond to emerging issues without the delays of formal rulemaking.

A clear example is the Nuclear Regulatory Commission's (NRC) development of the Reactor Oversight Process (ROP). The ROP replaced the older performance assessment framework for the nuclear power plants. It consolidated inspection, assessment, and enforcement policies into a risk-informed, performance-based system, all achieved through regulatory guidance and programmatic updates, without amending regulations in 10 CFR Part 50.

Similarly, in the low-level radioactive waste (LLRW) area, the NRC's Branch Technical Position on Concentration Averaging and Encapsulation demonstrates the agency's ability to address complex technical and policy issues outside of formal rulemaking, despite the impact this guidance has on states, compacts, waste generators, and disposal facility operators.

These cases highlight how the NRC has effectively used guidance to improve regulatory oversight and address complex challenges. In contrast, the 10 CFR Part 61 rulemaking illustrates how regulatory process can sometimes take longer than initially anticipated. While comprehensive analysis and stakeholder engagement are essential, prolonged timelines may delay implementation of regulations.

Although rulemaking is crucial for establishing clear and enforceable requirements, standalone guidance could offer a more flexible and adaptive approach for addressing emerging issues, especially given the inherent rigidity of formal regulations. Regulatory agencies should carefully consider whether guidance can achieve the desired outcome before committing to the rulemaking process.

Texas Legislation Signed by the Governor

House Bill 14 - effective 9/1/25

Sec. 483.002. PURPOSE. (a) The purpose of this Act is to promote the development of advanced nuclear reactor projects for dispatchable electric generation while creating high-wage advanced manufacturing jobs in this state.

Creates the Texas Advanced Nuclear Energy Program (Program) and establishes the Texas Advanced Nuclear Deployment Office (TANDO), administratively attached to the Office of the Governor.

Public Utility Commission of Texas (PUC) is to establish an account for the Program under the Texas Energy Fund 0176. The PUC would use money in the Program account without further appropriation to provide grants for the development of advanced nuclear reactor projects. Money in the Program account would only be used to administer certain grants.

Senate Bill 1535 - effective 9/1/25

The Texas Workforce Commission (TWC) administers workforce training programs for high-demand industries, but current law does not establish a dedicated program for advanced nuclear energy workforce development. ... The bill requires the TWC, in collaboration with the Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB) and in consultation with representatives designated by the Public Utility Commission of Texas (PUC) to coordinate this state's nuclear energy strategies, by rule to establish and administer the advanced nuclear energy workforce development program.

Appalachian Compact
Delaware • Maryland • Pennsylvania • West Virginia

Meeting
The next meeting will be November 7, 2025, at the Hilton in Harrisburg, PA from 10-12:30.

Atlantic Compact
Connecticut • New Jersey • South Carolina

Meeting
The next Atlantic Compact Commission meeting is scheduled for Thursday September 11, 2025 in Columbia. Contact: Executive Director, Max Batavia, P.E., max@atlanticcompact.org

Central Midwest Compact
Illinois • Kentucky

Meeting

September 24, 2025
10:00 AM CDT (IL) / 11:00 AM EDT (KY)
SpringHill Suites , 3921 S MacArthur Blvd
Springfield, IL 62712
In person and VIA WEBEX – Please email: loribeagles@gmail.com For Webex Invitation.

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

Meeting
2025 NWIC Annual Meeting
Boise, Idaho
September 10, 2025

The 2025 NWIC Annual Meeting will be held September 10, 2025 from 9:00am – 4:00pm. This meeting is open to the public via in-person at the Hilton Garden Inn Downtown Hotel, Boise, ID or virtual using the below MS TEAMS invite.

Join the meeting now
Meeting ID: 289 459 931 552 6
Passcode: a5m3es2d
Dial in by phone
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Phone conference ID: 264 534 130#

Southwestern Compact
Arizona • California • South Dakota • North Dakota

Workshops
August 26, 2025
DoubleTree by Hilton, San Francisco Airport, 825 Airport Blvd., Burlingame, CA

August 28, 2025
Courtyard by Marriott, 8 MacArthur Place, Santa Ana, CA
Workshop Agenda at https://swllrwcc.org/wp-content/uploads/2025/05/Workshop-Agenda-2025.pdf
Workshop Registration Form at https://swllrwcc.org/wp-content/uploads/2025/05/Workshop-Registration-Form.pdf

Texas Compact
Texas • Vermont

Meetings

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

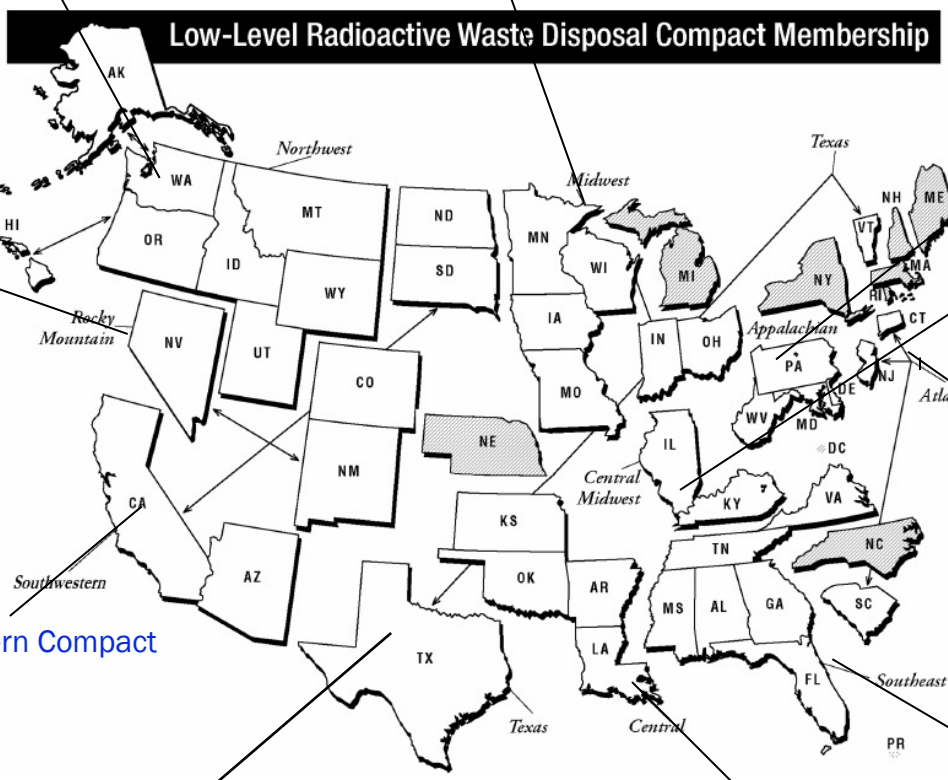
Northwest Compact
Alaska
Hawaii
Idaho
Montana
Oregon
Utah
Washington
Wyoming

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



Southwestern Compact
Arizona
California
South Dakota
North Dakota

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Texas
Vermont

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- DOE Public Affairs/Press Office - 202/586-5806
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- 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://llwforum.org/

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