


**EPA Radiation Protection
Division Update for LLW
Forum**



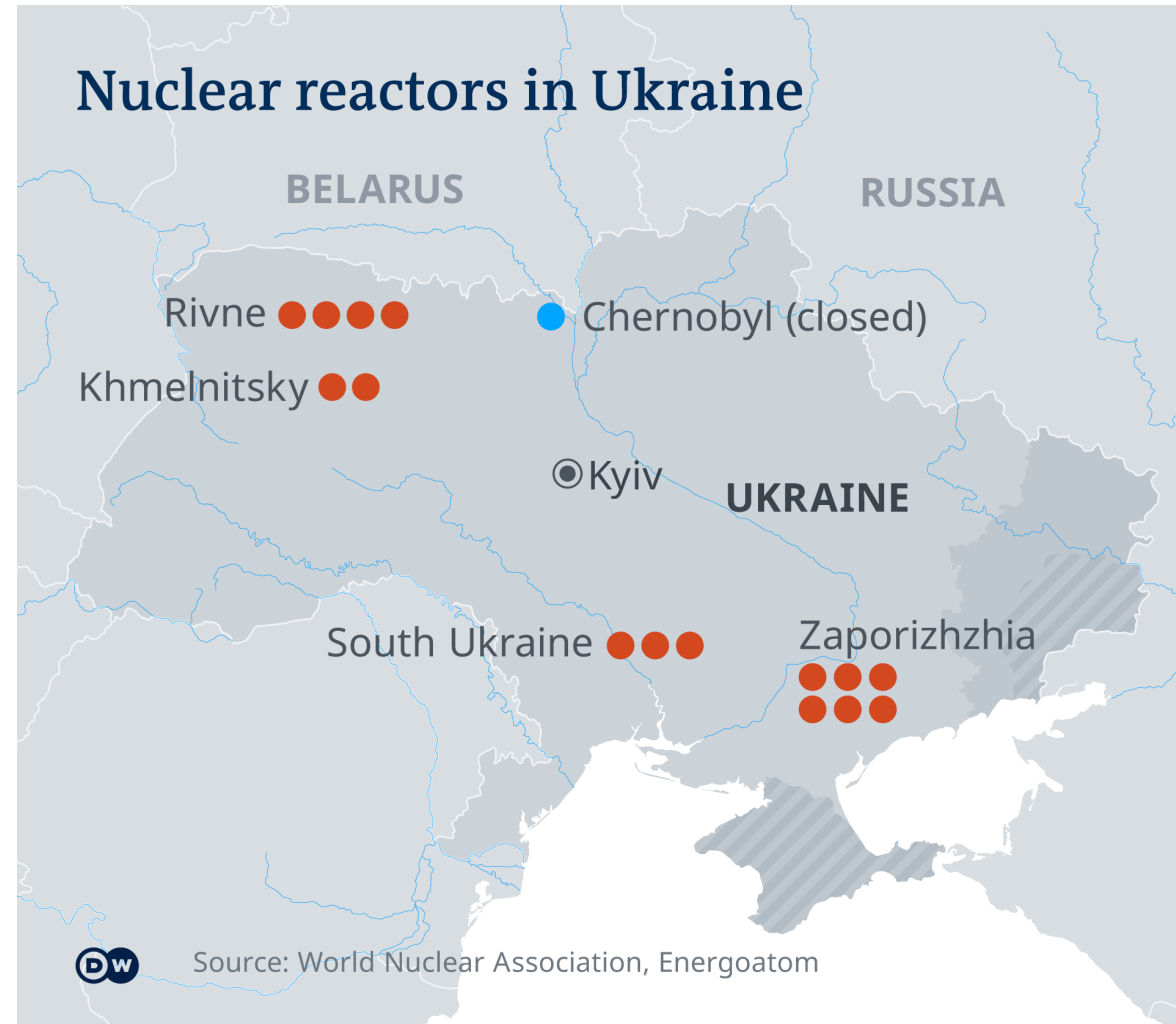
Tom Peake, US EPA Radiation Protection Division
March 23, 2023

- Foreign Nuclear Incidents (FNI) and Emergency Response
- Waste Isolation Pilot Plant Update
- TENORM
- Interest in new spent nuclear fuel and high-level waste regulations

EPA and Foreign Nuclear Incidents (FNI)

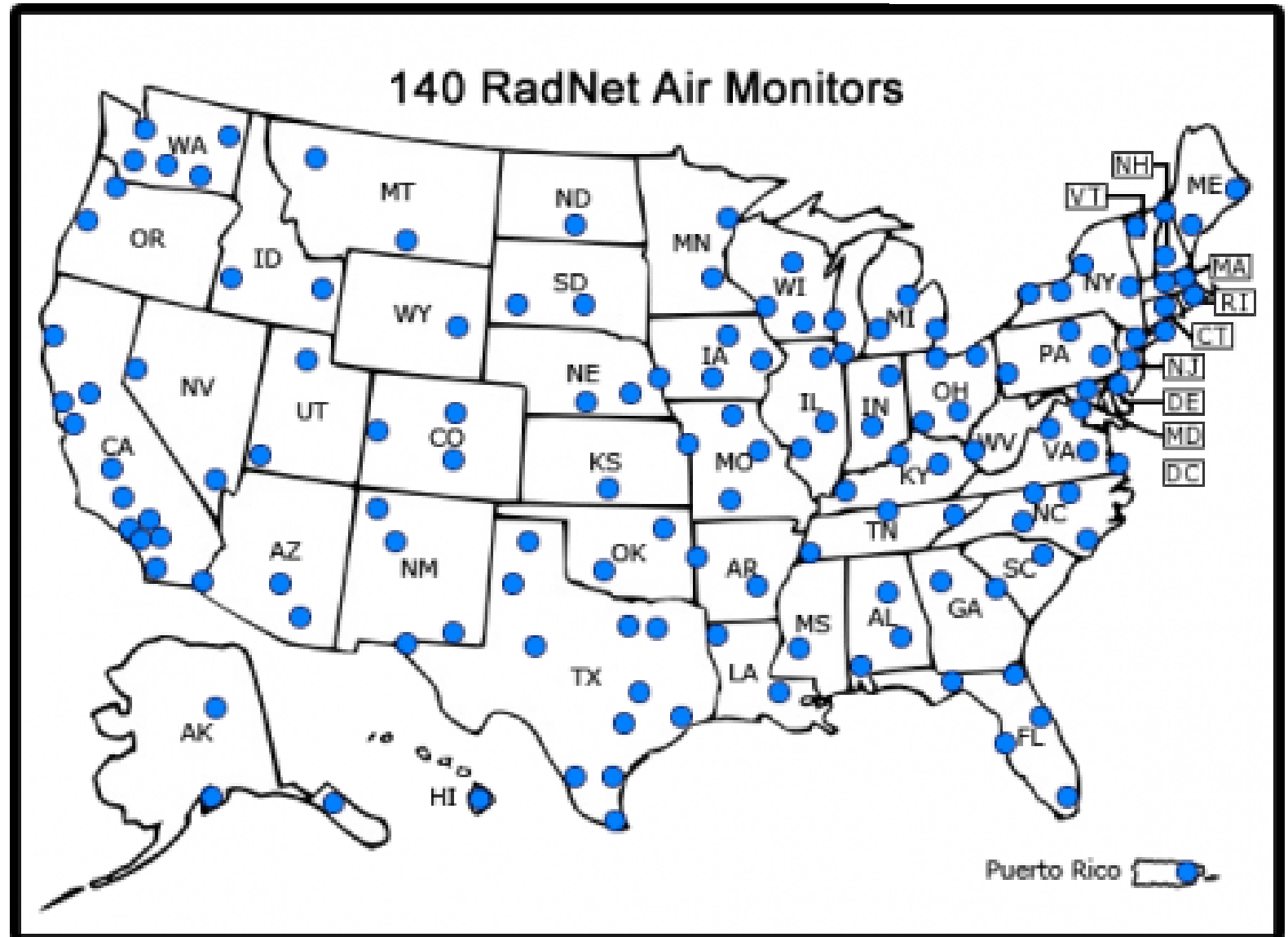


- EPA's role is to provide data and information to domestic audiences
 - Provide public messaging
- Coordinate and communicate with federal, state, local, tribal, and territorial partners
- Support the State Department for the international response
 - Includes providing information to Americans abroad
- RadNet



Continuous National Air Monitoring

- RadNet's 140 stations would be used to understand FNI radioactivity across the US
- EPA's RadNet system monitors the nation's air, precipitation and drinking water for radiation.



Waste Isolation Pilot Plant (WIPP)



- EPA recertified WIPP May 3, 2022 (87 FR 26126)
- EPA conducts continuing compliance activities, such as waste characterization and quality assurance inspections at waste generator sites and the WIPP site
- EPA is following DOE's activities related to plutonium—surplus and other waste
 - Original inventory had 6 MT Pu, now has 13.1 MT additional surplus Pu in inventory
 - DOE may add up to ~40 MT Pu eventually, associated with “dilute and dispose,” plus more Pu waste from nuclear weapon pit production
- New Panels in the West Wing
 - DOE expected to submit a planned change notice/request to EPA for panels 11 & 12 this year
 - Rulemaking or administrative decision with public input/comment
 - Eventually, DOE is expected to request panels 13+



Surplus Pu

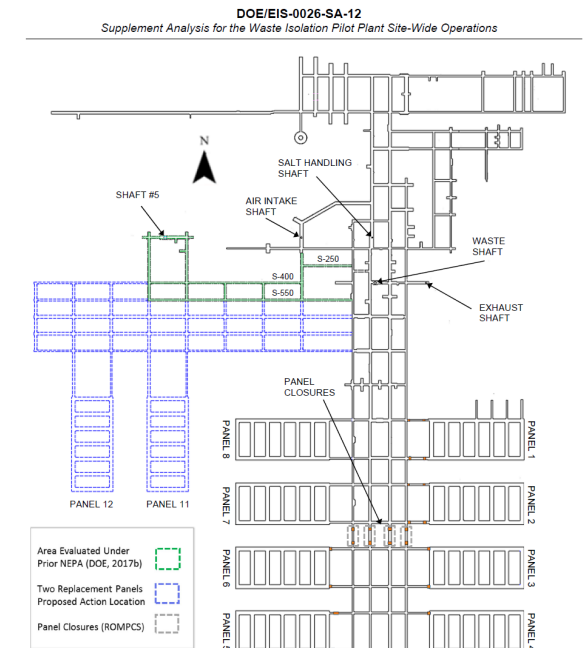


FIGURE 2-1. PROPOSED LOCATION FOR REPLACEMENT PANELS 11 AND 12
Proposed new panels 11 & 12

TENORM & Critical Minerals



- Many advanced energy technologies (e.g., batteries) rely on “critical minerals” for which supply is either uncertain or unreliable.
 - The Department of Interior (DOI) maintains a list of critical minerals, currently numbering 50
 - February 2022 list at <https://www.govinfo.gov/content/pkg/FR-2022-02-24/pdf/2022-04027.pdf>
- Current policy is to foster new, environmentally responsible mining in the US for critical minerals and reduce disruptions to the supply chain of critical minerals.
- Many critical minerals, such as rare earths, are associated with NORM and can generate TENORM.
- High level policy development being led by DOI, with input from other agencies, such as DOE and EPA.
- NEPA and permitting reform being discussed in Congress
- New laws, Executive Orders and use of the Defense Production Act

Renewed Interest in Generic Disposal Standards for Spent Nuclear Fuel and High-Level Waste



- The 2012 Blue Ribbon Commission report first recommended EPA develop new generic disposal standards for SNF and HLW
- December 2022 Senate hearing included the unnumbered draft Senate legislation titled “The Nuclear Waste Administration Act,” which includes direction for new EPA and NRC regulations
- The January 2023 National Academy of Sciences advanced reactor waste report recommended that EPA and NRC develop new disposal regulations
- American Nuclear Society (ANS)
 - Presentations at the November 2022 ANS/International High-level Waste meeting
 - February draft report with more detail on suggestions from ANS on what EPA should include in any new generic disposal standards for SNF and HLW

Surface view from near the edge of potential panel 16 at WIPP

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Questions?

<https://www.epa.gov/radiation>

