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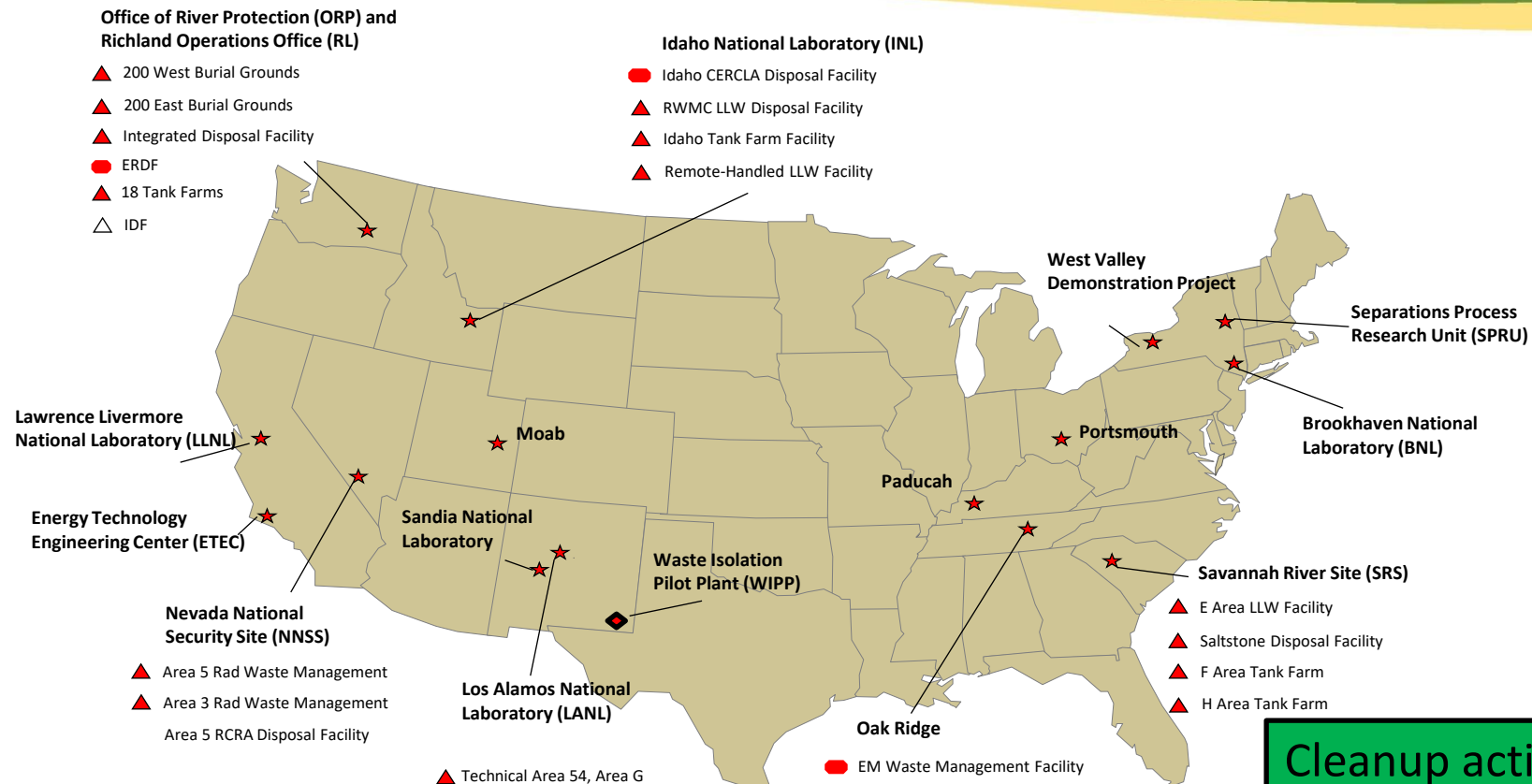
# Relationships and Roles within Regulatory Frameworks for Nuclear Waste Cleanup

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NGA Center for Best Practices

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# EM Cleanup Sites and Disposal Facilities

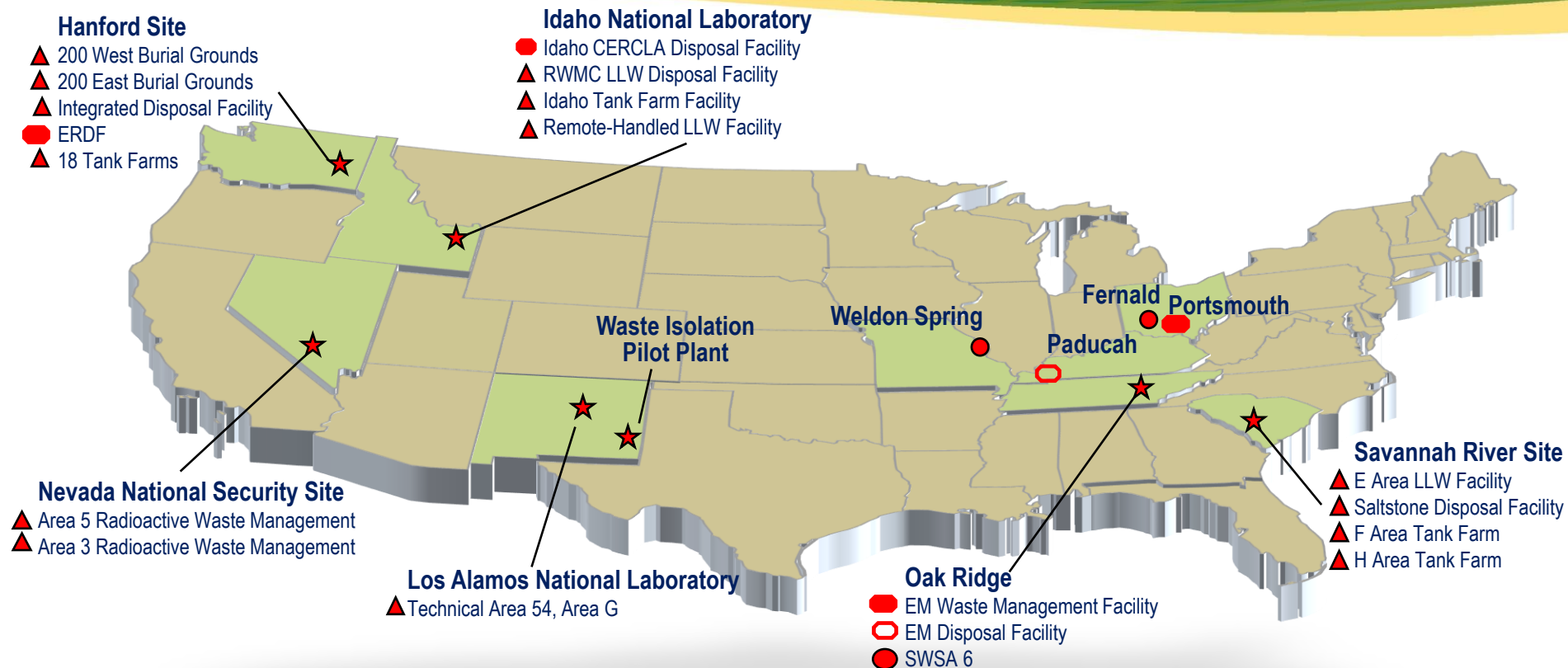


## Sites/Facilities

- ★ EM Cleanup Site
- ◆ Transuranic Waste Disposition
- ▲ LLW Operations Disposal Facility/Tank Farm Closure
- CERCLA Disposal Facility
- Proposed CERCLA Disposal Facility
- Closed CERCLA Disposal Facility
- △ RCRA Disposal Facility

Cleanup activities continue at 16 sites in 11 states with EM-operated disposal facilities at most of those locations.

# DOE Disposal Facilities



## Facilities

- Existing CERCLA Disposal Facility\*
- Evaluating CERCLA Disposal Facility
- ▲ LLW Operations Disposal Facility/Tank Farm Closure
- Closed Disposal Facility

\*Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)  
<https://www.epa.gov/superfund/superfund-cercla-overview>



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# State Attorneys' Perspective

## **Dan Miller**

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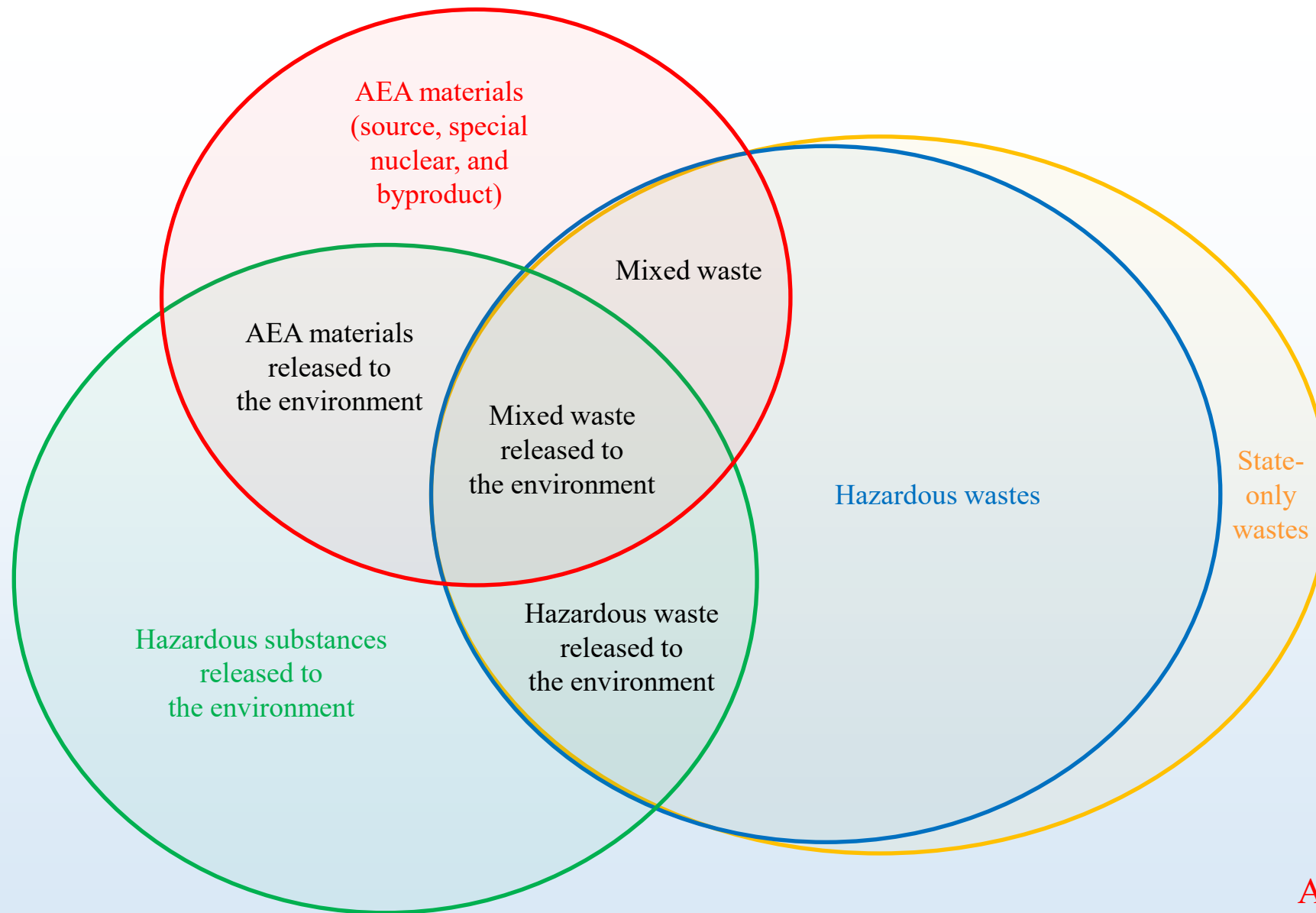
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## **Note**

This presentation represents the personal opinions of the panelists based on their own observations and experience, and does not represent a formal opinion of any of their respective legal offices or client agencies



Atomic Energy Act (AEA)

Resource, Conservation and Recovery Act (RCRA)

State-Authorized RCRA Program (ex. WA Hazardous Waste Management Act)

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

# Can states even regulate federal agencies?

- Yes, if Congress passes a law that says they can
- These laws are called “waivers of sovereign immunity”
  - Major federal environmental laws contain these waivers of immunity
    - Clean Air Act, Clean Water Act, Safe Drinking Water Act, RCRA
  - Federal courts read these waivers very narrowly
    - *Hancock v. Train*: CAA waiver stating federal agencies must comply with state “requirements respecting control and abatement of air pollution to the same extent that any person is subject to such requirements” did not mean Kentucky could require the Atomic Energy Commission (now DOE) to get a state permit for the Paducah Gaseous Diffusion Plant
- Congress has overturned some Supreme Court decisions. States may now require federal agencies to get CAA, CWA and RCRA permits, and can fine federal agencies for violating hazardous waste laws

# Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- Applicability
  - Remediation of hazardous substances released\* to the environment
  - Natural Resource Damages

DOE	EPA	States	NRC
<ul style="list-style-type: none"><li>• Liable party</li><li>• Lead agency for response actions at its sites per Executive Order 12580</li><li>• Natural Resource Trustee</li></ul>	<ul style="list-style-type: none"><li>• Primary regulator at non-federal sites</li><li>• Concur in remedy at federal sites on NPL**</li></ul>	<ul style="list-style-type: none"><li>• Can serve as lead agency, but do not have final decision-making authority**</li><li>• Identify State ARARs</li><li>• Natural Resource Trustee</li></ul>	<ul style="list-style-type: none"><li>• N/A</li></ul>

\* Also applies to a “substantial threat” of a release

\*\* CERCLA is an exception to the typical environmental law framework, where states have primary regulatory authority



# Atomic Energy Act of 1954 (AEA)

- Applicability
  - Management of source material, special nuclear material, and byproduct material

DOE	EPA	States	NRC
<ul style="list-style-type: none"><li>• Self-regulating at DOE sites, subject to NRC's limited jurisdiction*</li></ul>	<ul style="list-style-type: none"><li>• N/A</li></ul>	<ul style="list-style-type: none"><li>• Agreement States can assume NRC regulatory role</li></ul>	<ul style="list-style-type: none"><li>• Primary regulator at non-DOE sites</li><li>• Jurisdiction over certain activities at DOE sites*</li></ul>

\* For example, Section 202(4) of the Energy Reorganization Act of 1974 gives NRC jurisdiction over DOE facilities that are “authorized for the express purpose of subsequent long-term storage of high-level radioactive waste generated by the Administration, which are not used for, or are part of, research and development activities.”

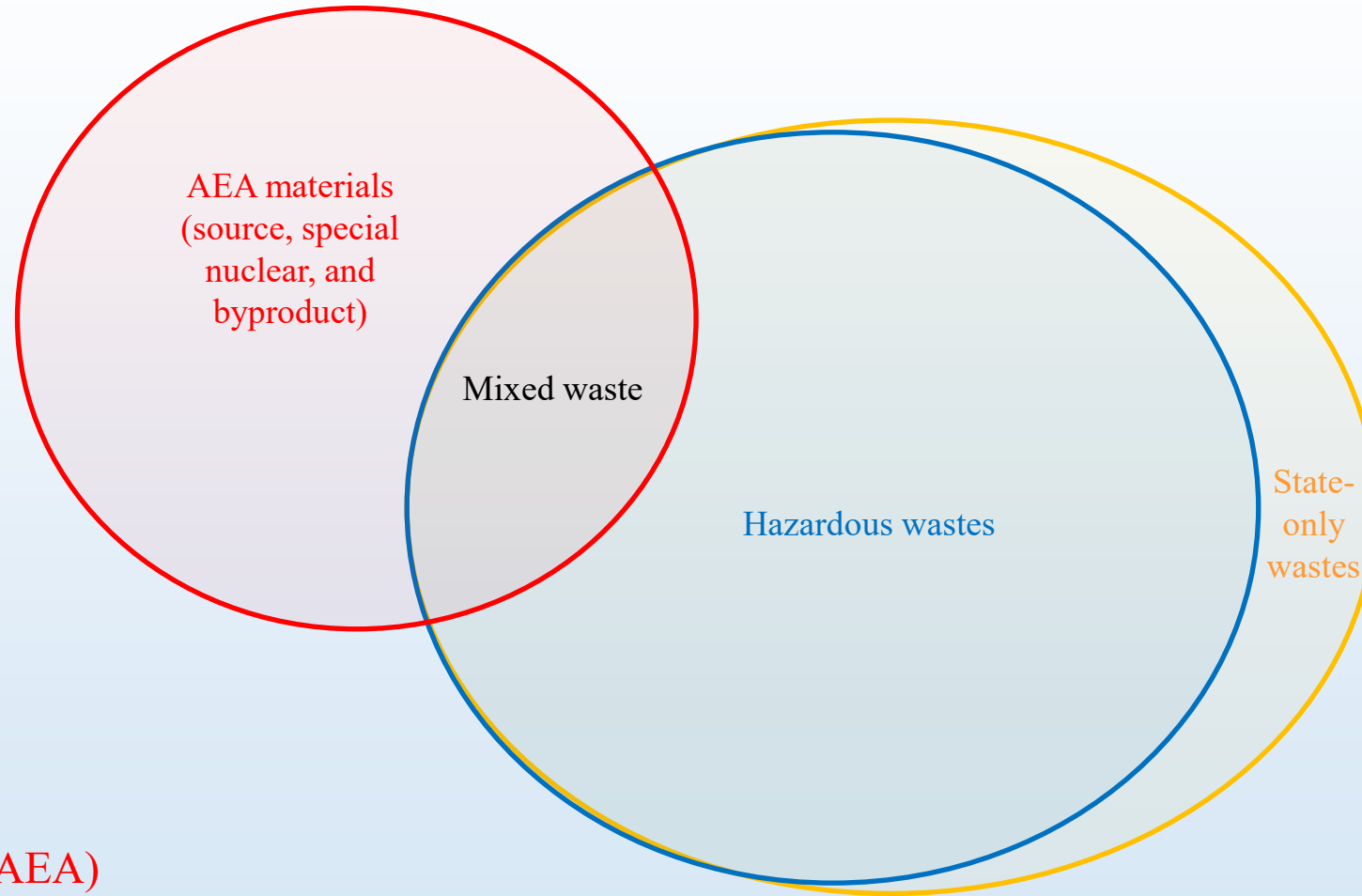


# Resource, Conservation and Recovery Act (RCRA)

- Applicability
  - Hazardous waste management (including generation, storage, treatment, and disposal)
  - Cleanup of hazardous wastes released to the environment (corrective action)

DOE	EPA	States	NRC
<ul style="list-style-type: none"><li>• Regulated entity</li></ul>	<ul style="list-style-type: none"><li>• Oversight of states' authorized programs</li><li>• Enforcement of RCRA in states without authorized programs</li></ul>	<ul style="list-style-type: none"><li>• Primary regulator</li><li>• Enforcement of state laws authorized by EPA to be implemented in lieu of RCRA</li></ul>	<ul style="list-style-type: none"><li>• N/A</li></ul>

# Jurisdictional Overlap: RCRA & AEA



Atomic Energy Act (AEA)

Resource, Conservation and Recovery Act (RCRA)

State-Authorized RCRA Program (ex. WA Hazardous Waste Management Act)

# Jurisdictional Overlap: RCRA & AEA

- RCRA applies to hazardous waste, but not to “source, special nuclear, and byproduct material” (AEA materials)
- “Mixed waste” contains both AEA materials and hazardous waste
  - 1986 EPA rule clarified hazardous portion of mixed wastes are subject to RCRA
  - 1987 DOE rulemaking re: byproduct material
    - Proposed rule would have excluded mixed waste streams from RCRA
    - Final rule acknowledged mixed wastes were subject to RCRA authority
- Federal Facility Compliance Act (1992)
  - Requires DOE to comply with all federal/state requirements for hazardous waste management “in the same manner, and to the same extent, as any person is subject to such requirements”
  - Requires DOE to obtain state approval for site treatment plans (STPs) with schedules for treatment of DOE mixed wastes to meet RCRA Land Disposal Restriction (LDR) standards
    - The effective date was delayed for three years to allow development of the STPs
    - Examples: Oak Ridge Reservation STP (1995); Hanford Tri-Party Agreement, LDR Report requirements

# Jurisdictional Overlap: RCRA & AEA

- Limited AEA preemption clause: 42 U.S.C. § 2021(k)
  - “Nothing in this section shall be construed to affect the authority of any State or local agency to regulate activities for purposes other than protection against radiation hazards.”
  - U.S. Supreme Court interpretation:

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VIRGINIA URANIUM, INC. *v.* WARREN

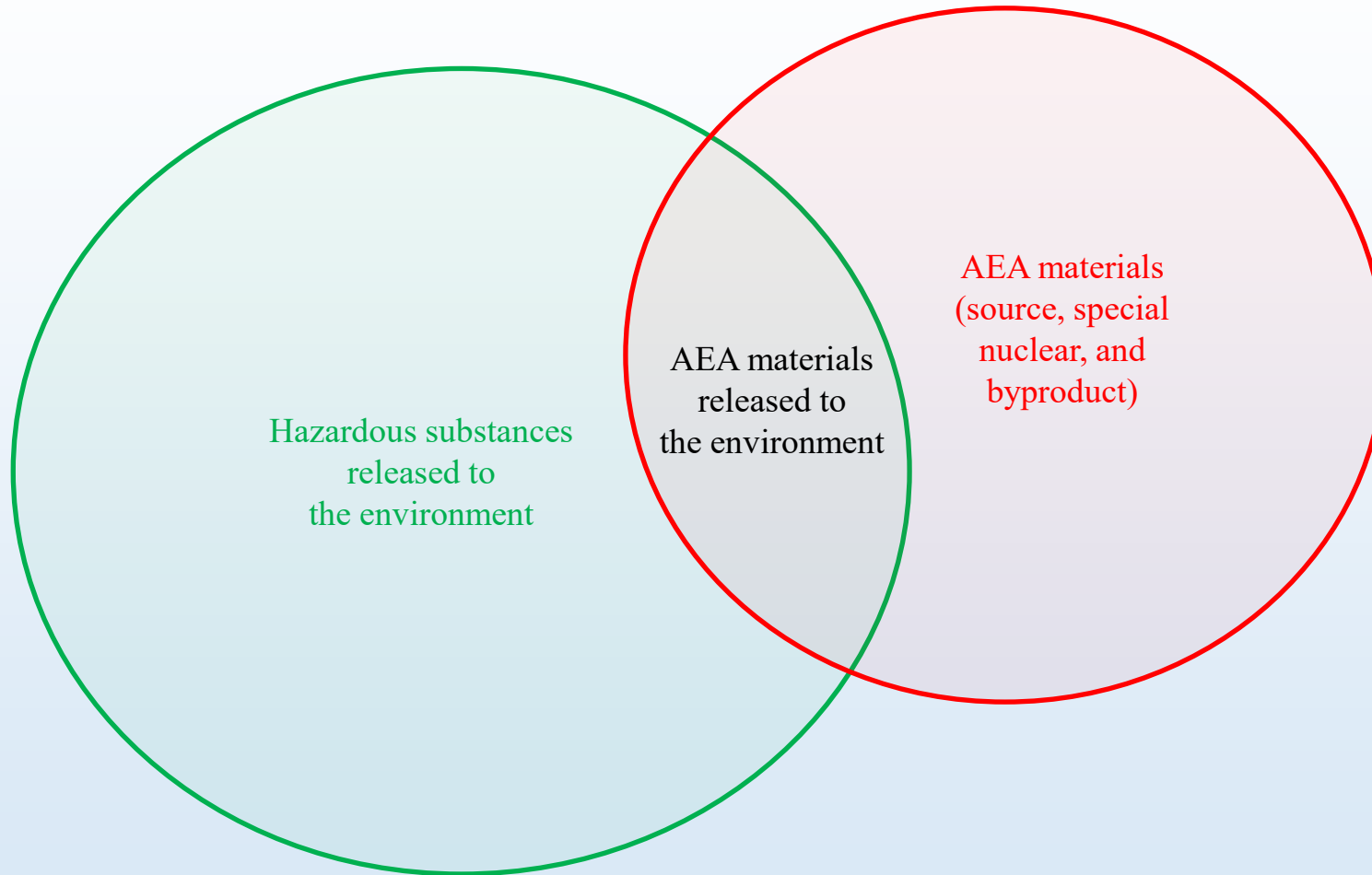
Opinion of GORSUCH, J.

with the States some of the powers previously reserved to the federal government. Even then, the statute explained in subsection (k) that States remain free to regulate the activities discussed in §2021 for purposes *other than* nuclear safety without the NRC’s consent. Indeed, if anything, subsection (k) might be described as a *non-preemption* clause.

# Jurisdictional Overlap: RCRA & AEA

- RCRA inconsistency provision
  - “Nothing in this chapter shall be construed to apply to (or to authorize any State, interstate, or local authority to regulate) any activity or substance which is subject to the Federal Water Pollution Control Act, the Safe Drinking Water Act, the Marine Protection, Research, and Sanctuaries Act of 1972, or the Atomic Energy Act of 1954 except to the extent that such application (or regulation) is not inconsistent with the requirements of such Acts.”
- Federal court interpretations
  - *Legal Envt’l Assistance Foundation, Inc. v. Hodel*
    - Courts “must give full effect to a statute unless it is in ‘irreconcilable conflict’ with another statute.”
    - Energy has the burden of proof “to show that such an inconsistency would result”
  - *Edison Electric Institute v. U.S. EPA*
    - Must demonstrate that there is a “direct conflict” with a “specific provision of the AEA”

# Jurisdictional overlap: CERCLA & AEA



Atomic Energy Act (AEA)

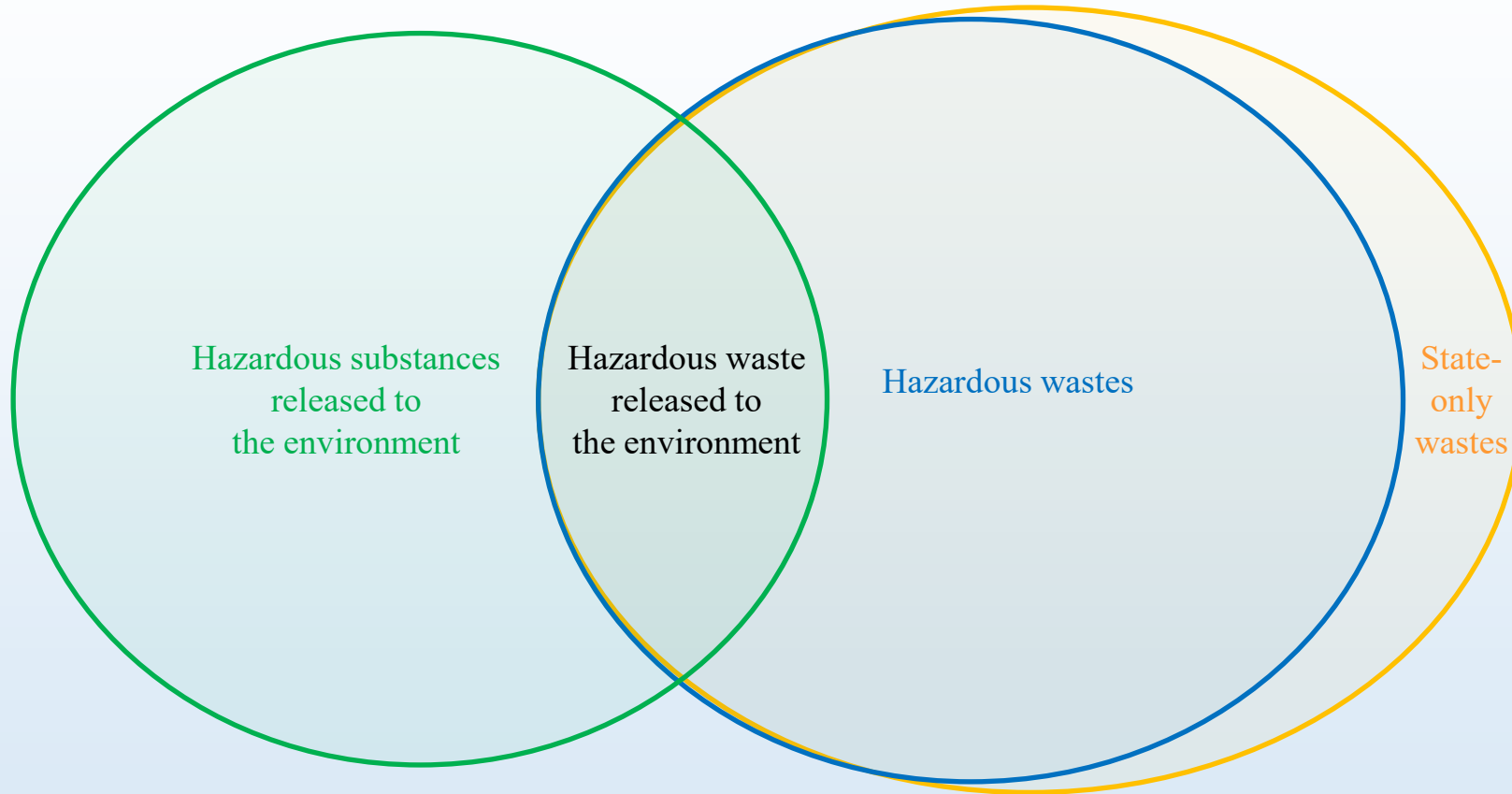
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

# Jurisdictional overlap: CERCLA & AEA

- U.S. EPA Administrator Determination for Oak Ridge (Dec. 31, 2020)
  - AEA dose-based standards vs. CERCLA risk range
    - CERCLA is the controlling statute, and risk wins against dose, because most of the NRC regulations based on dose do not fit within the CERCLA risk range
  - Applicable or relevant and appropriate requirements (ARARs)
    - As a limited exception to generally not recognizing NRC's regulations, the regulations specifically related to low level radioactive waste landfills at 10 CFR § 61.41 and § 61.43 are both relevant and appropriate to the discharge of radionuclides in wastewater associated with these CERCLA actions.”
    - But NRC's Part 20 regulations and DOE Order 458.1 are not appropriate, because not inside the risk range
    - State water quality narrative standards based on risk levels for carcinogens (including radionuclides) are ARARs under CERCLA even though AEA materials are excluded from the Clean Water Act's definition of “pollutant”
      - But Clean Water Act “technology-based standards and antidegradation policies” are not, reversing the Region IV Administrator's earlier decision on this issue;
      - and the guidance used to develop and AWQC based on default assumptions about the numbers of fish caught and eaten annually are not used since guidance is not law and site-specific assumptions can be developed
      - The site-specific assumptions are more like the conventional CERCLA risk assessment process and Bear Creek for more than half of its length is inside the security perimeter for the Y-12 NNSA facility
      - Because both the CERCLA risk assessment process and a part of the CWA are combined in confusing fashion, the whole is less than sum of its parts



# Jurisdictional overlap: RCRA & CERCLA



Resource, Conservation and Recovery Act (RCRA)

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Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

# Jurisdictional overlap: RCRA & CERCLA

- RCRA applies to hazardous wastes; CERCLA applies to hazardous substances
  - Hazardous substances include listed and characteristic hazardous wastes, and some materials that are not RCRA hazardous wastes
- Both statutes may apply; overlap typically arises at federal facilities
- States are the cleanup decision-makers under RCRA
- DOE and DOD are cleanup decision-makers under CERCLA for sites under their jurisdiction
  - EPA must concur in remedies for federal facilities listed on National Priority List
- So, what if there is a conflict?
- In the Tenth circuit, both statutes apply

# RCRA permits at CERCLA sites

- CERCLA actions “conducted entirely onsite” do not require environmental permits
- EPA says CERCLA permit exemption does not apply to pre-existing RCRA units at CERCLA sites
- Even where permit waiver applies, action must still meet substantive requirements
- Judicial interpretations
  - *In re: U.S. Dep’t of Energy Hanford Nuclear Reservation* (2000)
    - “On its face, Section 121(e)(1) applies only to those removal or remedial actions conducted *entirely onsite*. The term ‘*onsite*’ is not boundless; rather it is limited to the areal extent of contamination and suitable areas in very close proximity to such contamination.”
  - *Colorado Dep’t of Public Health & Env’t v. United States* (2019)
    - “The CERCLA permit waiver does not preempt permitting requirements for units that are being regulated under RCRA/CHWA at the time the CERCLA action commences.”
  - *U.S. Dep’t of Energy v. Washington State Dep’t of Ecology* (2018)
    - “CERCLA Section 121 exempts Appellants from permit requirements, but not all related [Washington Administrative Code] requirements.”
    - “The Section 121 permit waiver applies only during CERCLA remedial actions.”

# Accommodating jurisdictional overlap

- Joint CERCLA Federal Facility Agreements/RCRA consent orders
  - Rocky Flats Cleanup Agreement
  - Hanford Tri-Party Agreement
- Agreements in Principle
  - Oak Ridge AIP
- Settlement agreements
  - Idaho National Lab
- Judicial consent decrees
  - Hanford Amended Consent Decree



Hanford Tri-Party Agreement signatories, 1989

# Accommodating jurisdictional overlap

- Rocky Flats Cleanup Agreement
  - Site divided into 2 Operable Units: Industrial Area and Buffer Zone
  - State was “Lead Regulatory Agency” for IA; EPA was LRA for BZ
  - Parties agreed up-front to “vision” for cleanup endpoints, and to action level framework
  - State regulated cleanup in IA pursuant to state law, supplemented by CERCLA as needed to address materials not subject to state regulation (e.g., plutonium is not a hazardous waste)
  - EPA regulated cleanup of BZ pursuant to CERCLA
  - All cleanup performed as “accelerated actions” (RCRA interim measures/CERCLA removals)
  - Following cleanup, State made a final Corrective Action Decision for IA; EPA and DOE agreed to issue concurrence ROD if state decision consistent with CERCLA.
  - For BZ, EPA and DOE issued a proposed ROD; State agreed to issue concurrence CAD if decision was consistent with state hazardous waste law
  - Heavily consultative process; lots of public involvement
- Cleanup completed ahead of schedule and under budget.
  - BZ suitable for unrestricted use and now part of Rocky Flats National Wildlife Refuge
  - IA subject to DOE management, CDPHE/EPA oversight under joint RCRA/CERCLA order

# Accommodating jurisdictional overlap

## Hanford Tri-Party Agreement

- 2019 amendments
- Action Plan Section 5.5 updated to implement “Coordinated Closure”

### Authorized Changes

Modifications to the HFFACO are displayed by using double underline to indicate added text and ~~strikeout~~ to indicate deleted text.

#### 5.5 Treatment, Storage, and Disposal Units and Past Practice Units Interface

In some cases, TSD units are closely associated with past-practice units at the Hanford Site, either geographically or through similar processes and waste streams. Although disposition of all TSD such units must be managed in accordance with Section 6.0, a procedure to coordinate the TSD unit closure and ~~or other applicable dangerous waste~~ permitting activity with the past-practice investigation and and/or remediation activity is necessary to prevent overlap and duplication of work, thereby economically and efficiently addressing the contamination. In Appendix B, selected TSD groups/units, primarily land disposal units, were ~~have been~~ initially assigned to operable units based on the criteria defined in Section 3.3.

In order to coordinate the development and implementation of closure plans for such TSD units with the investigation and remediation of closely associated past-practice units, DOE will provide Ecology with ~~The~~ information necessary for performing RCRA closures/postclosures within an operable unit will be provided in various RFI/CMS documents to satisfy any outstanding closure plan requirements under WAC 173-303-610(3) in the form of one or more Coordinated Closure (CC) Proposals. Each CC Proposal will be submitted to Ecology as a permit modification request in accordance with WAC 173-303-830(4) and in conjunction with the submission of the associated past-practice document(s) to the lead regulatory agency for the operable unit, pursuant to the applicable milestone(s) set forth in Appendix D.<sup>1</sup>



# Accommodating jurisdictional overlap

## Hanford Tri-Party Agreement

- 2019 amendments
- New milestones for future submission of “Coordinated Closure Proposals” as RCRA permit modification requests

<b>Tentative Agreement on Tri-Party Agreement</b> <b>Revisions in Response to the Coordinated Closure Negotiations</b>		
Change Control Form M-37-19-01 Page 4 of 7		
Number	Milestone	Due Date
<u>M-037-23</u> <u>Lead Regulatory</u> <u>Agency: Ecology</u>	<p><u>DOE shall submit a Coordinated Closure (CC) Proposal as a permit modification request pursuant to WAC 173-303-830(4) for the following TSD Units: 216-B-3 Main Pond system and 216-S-10 Pond and Ditch. The CC Proposal shall be submitted to Ecology within 270 days of the last ROD signature for the 200-OA-1 OU.</u></p> <p><u>The CC Proposal shall be prepared in accordance with the process described in TPA Action Plan Section 5.5 and include all outstanding closure information required by WAC 173-303-610(3)(a)(i)–(vii) and, as applicable, all outstanding post-closure information required by WAC 173-303-610(8)(b). If the use of alternative requirements has been requested for closure of any of these TSD Units under WAC 173-303-610(1)(e), the CC Proposal shall also include all outstanding information required by WAC 173-303-610(3)(a)(ix).</u></p>	<p><u>Within 270 days of the last ROD signature for the 200-OA-1 OU</u></p>





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