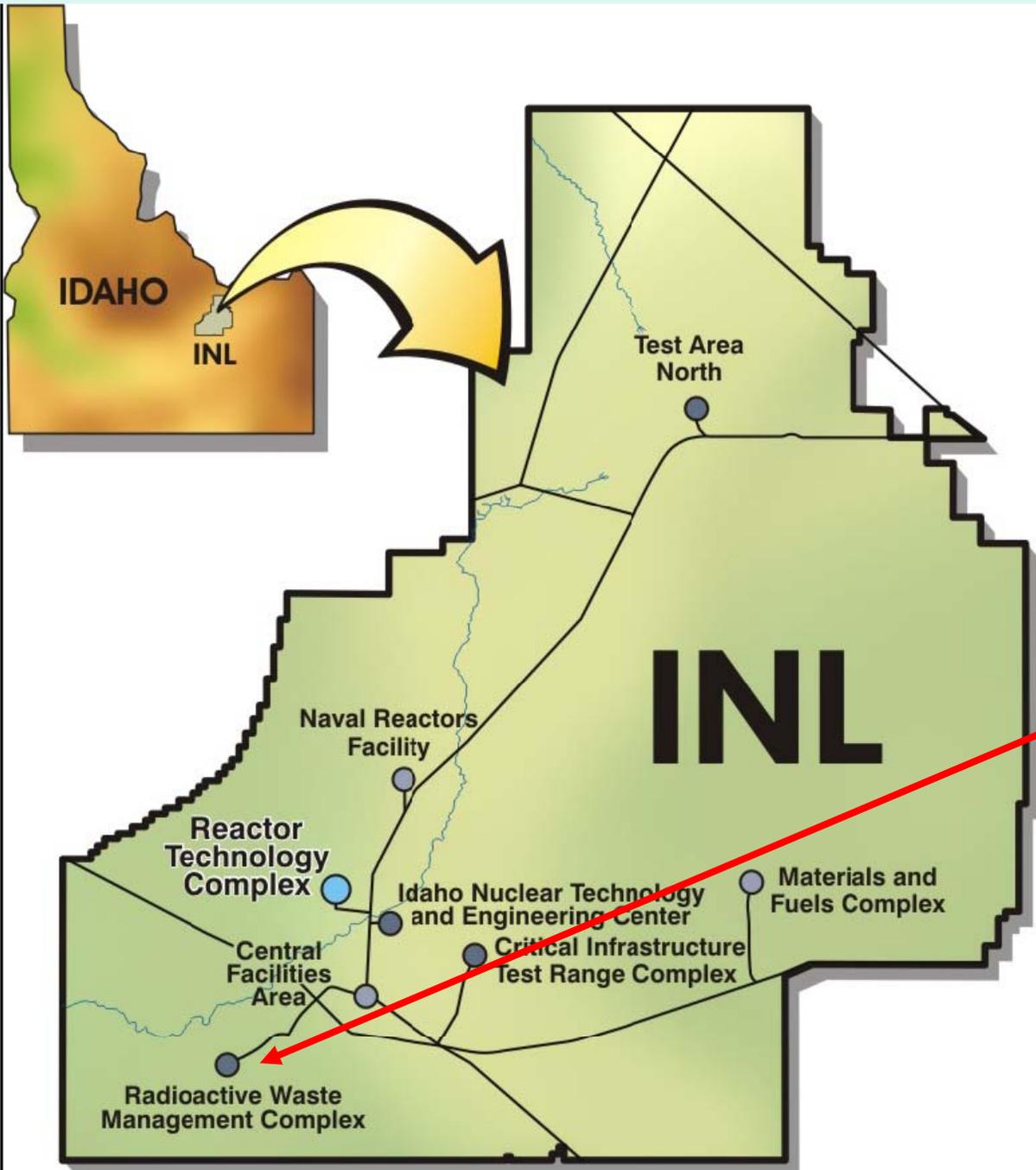


Buried Radioactive Waste at Idaho National Lab

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Radioactive Waste Management Complex (RWMC)

Radioactive Waste Management Complex (RWMC)

- Used to manage, store, and dispose of radioactive waste
- Accepted waste from Rocky Flats, INL operations, and other generators
- Included waste generated through national defense and research programs

Buried Waste Past Disposal Practice



Subsurface Disposal Area



Remedial Investigation

- Nature and extent of contamination
- Waste zone
- Surface soils
- Vadose zone
- Aquifer

Remedial Investigation

Area	Investigation	Detections
Waste Zone	300 probes	VOCs, Am-241, Plutonium isotopes, Uranium isotopes
Vadose Zone	Boreholes	VOCs, Tc-99, C-14, Nitrate, Uranium isotopes
Aquifer	Wells	Carbon Tetrachloride (only contaminant above standard)

Previous Actions

- In situ grouting of Beryllium blocks
 - Paraffin-based grout to reduce C-14 mobility
- Glovebox Excavator Method (GEM)
 - Remote excavation of 75 m³
 - Validation of visual identification
- Accelerated Retrieval Project (ARP)
 - Removal of targeted waste

Previous Actions (cont.)

- PAD A soil cover
 - Asphalt pad used for transuranic-contaminated waste
- Pit 9 Record of Decision (1993)
 - Chemical extraction, physical separation, and/or stabilization technologies
- Soil Vapor Extraction
 - Pulls organic vapors out of the ground

RWMC Record of Decision

- Signed in 2008
- Balance of alternatives
 - Targeted waste retrieval from 5.69 acres
 - In situ grouting of specific waste types
 - Vadose zone vapor vacuum extraction and treatment
 - Evapotranspiration surface barrier
 - Long-term institutional controls and monitoring

GEM Project (Glovebox Excavator Method)



The GEM facility prior to D&D (above).

Once the fabric covering was removed, the outer walls were demolished (right).



ARP Enclosures



Waste Retrieval



Sorting Out WIPP Prohibited Items



Generating New Waste Packages for Shipment to WIPP

