

# Decommissioning Programs United States of American

Presentation for the  
International Atomic Energy Agency  
Meeting on the  
Establishment of an International Decommissioning Network

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# Deactivation & Decommissioning in the United States

- US Nuclear Regulatory Commission
  - Responsible for regulating commercial nuclear facility D&D, including
    - Complex Material Sites
    - Power Reactors
    - Research & Test Reactors
    - Uranium Recovery Sites
    - Fuel Cycle Facilities
- US Department of Energy
  - Responsible for regulating, managing and conducting D&D of DOE owned nuclear facilities at
    - Savannah River, South Carolina
    - Oak Ridge, Tennessee
    - Brookhaven, New York
    - Portsmouth, Ohio
    - Idaho Falls, Idaho
    - Richland, Washington
    - *Rocky Flats (Colorado) and Fernald (Ohio) – completed in 2006*



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# US Nuclear Regulatory Commission

- Currently responsible for regulating the decommissioning of
  - Seven (7) Research and Test Reactors
  - Sixteen (16) Power Reactors
  - Thirty-one (31) Complex Material Sites
  - Twelve (12) Uranium Recovery Sites
  - One (1) Fuel Cycle Facility



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# US Nuclear Regulatory Commission

- Information on US NRC scope and activities can be found at
  - [www.nrc.gov/about-nrc/regulatory/decommissioning](http://www.nrc.gov/about-nrc/regulatory/decommissioning)
- Recently completed lessons learned summaries can be found at
  - [www.nrc.gov/about-nrc/regulatory/decommissioning/lessons-learned.html](http://www.nrc.gov/about-nrc/regulatory/decommissioning/lessons-learned.html)
- 2006 Annual Report on the Status of the NRC Decommissioning Program can be found at
  - [www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1814/r1/](http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1814/r1/)



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# US NRC // US DOE

- It is important to understand that neither NRC or DOE carry out the physical work required for decommissioning
  - NRC provides regulations for, and oversight of, utility owners who conduct or manage contractors performing decommissioning
  - DOE provides regulations, oversight and manages contractors performing decommissioning
- Contractor community maintains a wealth of national and international knowledge and experience



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# US Department of Energy

- Majority of D&D managed by the Office of Environmental Management
- Regulatory framework established by both the US Environmental Protection Agency (EPA) and internal “laws” (DOE Orders)
- Almost 3,000 facilities (buildings and structures) to be decommissioned (additional scope planned)
- 20% of Nuclear; and 40% of radiological and industrial facilities completed



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# US Department of Energy

- Three active research reactor decommissioning projects:
  - Brookhaven Graphite Research Reactor (New York)
  - High Flux Beam Reactor (New York)
  - Fast Flux Test Reactor (Washington)
- Scope of overall D&D undecided for 2008/2009 due to budget uncertainties; however
  - Based on the 20%/40%/40% completion, a target-rich environment exists for sharing of information



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# US Department of Energy

- Future scope includes numerous production reactors, processing plants (canyons) and other nuclear/radiological facilities
- Significant efforts ongoing in defining entombment for large and robust facilities (Savannah River and Richland)



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# US Department of Energy

- Conceptually in agreement with the objectives of the International Decommissioning Network
- Recent “Intent” for exchange of information signed between US DOE and the Nuclear Decommissioning Authority (NDA) of the United Kingdom of Great Britain and Northern Ireland
- Details of how to meet the intent of IAEA-IDN will need to be worked out
- Potential integration between IAEA-IDN and DOE-NDA can be explored



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# US Department of Energy Potential Opportunities

Strategy	EM	SV	TR				
Planning	EM	SV	TR				
PM & Org	EM	SV					
Cost Estimating	EM	SV					
Transition	EM	SV					
Technology	EM	SV		DT			



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# US Department of Energy

- Decommissioning information is available at:
  - [www.em.doe.gov/DandD/TierFlowChart.aspx](http://www.em.doe.gov/DandD/TierFlowChart.aspx)
  - [www.em.doe.gov/DandD/methods.aspx](http://www.em.doe.gov/DandD/methods.aspx)
- Ongoing efforts to establish a knowledge management-lessons learned web site and technology demonstrations/workshops will provide additional information and opportunities
- DOE contractor (Argonne National Laboratory) provided decommissioning training information is available at:
  - [www.dd.anl.gov](http://www.dd.anl.gov)



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