

# Low-Level Radioactive Waste Regulatory Process

Larry W. Camper  
USNRC Retired

# Regulatory Scheme

- \* Complicated regulatory mosaic but adequate to protect public health and safety
- \* May be difficult to understand or explain
- \* Lacking exact international alignment
- \* Proven track record
- \* Room for improvement

# Key Legislation

- Atomic Energy Act (1954)
- National Environmental Policy Act (1969)
- Transportation Safety Act (1974)
- Low Level Waste Policy Act (1980)
- Nuclear Waste Policy Act (1982)
- Low Level Waste Policy Act Amended (1985)
- Comprehensive Environmental Response Compensation and Liability Act (1986)
- Energy Policy Act of 2005

# US Regulators

- \* Agreement States
- \* Environmental Protection Agency
- \* Department of Energy
- \* Nuclear Regulatory Commission

# DOE Regulations

- \* Order 458.1, Radiation Protection of Public and the Environment
- \* Order 435.1, Radioactive Waste Management

# NRC Regulations

- \* 10 CFR Part 20, Standards for Protection Against Radiation
- \* 10 CFR Part 61, Licensing Requirements for Land Disposal of Radioactive Waste
- \* 10 CFR Part 62, Criteria and Procedures for Emergency Access To Non-Federal and Regional Low-Level Waste Disposal Facilities

# Influence the Process

- \* Compact Commissions (States)
- \* Council of Radiation Control Program Directors
- \* International Council on Radiation Protection
- \* Low Level Waste Forum
- \* National Council on Radiation Protection
- \* Organization of Agreement States

# Agreement States

- \* NRC Requirements
- \* Adequacy and Compatibility
- \* Integrated Management Performance Evaluation Program
- \* Implement licensing and inspection and regulations via States legislative authority



# States Role

- \* Each state must dispose of LLW generated within its borders
- \* States may assume USNRC regulatory authority
- \* States regulate non-AEA wastes under authority provided by State legislatures

# Active Commercial LLW Disposal Sites

- \* Andrews County, Texas (Class A,B & C)
- \* Barnwell, South Carolina (Class A,B & C)
- \* Clive, Utah (Class A)
- \* Richland, Washington (Class A,B & C)

# International Atomic Energy Agency

- \* Basic Safety Standards for Protection Against Ionizing Radiation and for the Safety of Radiation Sources
- \* Disposal of Radioactive Waste, Specific Requirements, No. SSR-5
- \* Classification of Radioactive Waste, General Safety Guide, No. GSG-1
- \* Other Documents and Initiatives, e.g., Code of Conduct and Joint Convention

# Integrated Safety System

- \* Site Selection
- \* Site Design and Technical Analysis
- \* Licensing
- \* Waste Forms and Classification
- \* Site Operation
- \* Facility Closure
- \* Post Closure Stabilization
- \* Institutional Controls

# Current Assessment and Pending Changes

- \* Addressing unique waste streams (Beyond Part 61 analysis)
- \* Increasing role of performance assessment
- \* Address complex waste forms (DU,GTCC,TRU)
- \* More NRC rulemaking (Waste Classification, GTCC,TRU and DU??)
- \* Active stakeholders interest