

# What Can We Do?

## Panel Discussion “Spent Fuel Political Landscape”

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# Situation – Political Gridlock

- No perceived urgency regarding the management and disposal of used nuclear fuel and high-level radioactive waste (collectively, HLW)
- Political considerations outweigh national interest
- Lack of proper consideration of consequences of action (and inaction)



- Geologic repository – no government action since 2010 except generic research and development
- Consolidated interim storage (CIS) – no government action since shutting down the Monitored Retrievable Storage program in the 1990s

# Ongoing Government Actions

- Support for research and development into technical issues associated with long-term storage and transportation of used fuel
- Modest transportation work (rail car)
- Stabilization and solidification of Department of Energy (DOE) HLW
- Sporadic congressional debates on used fuel legislation

# FY2020 Budget

- No funding for Yucca Mountain or consolidated interim storage
- Study spent fuel under transportation conditions
- DOE report to Congress on “innovative options for disposition of high-level waste and spent nuclear fuel management” (due in 90 days)
- National Academy of Sciences study on the waste aspects of advanced reactors (due in 20 months)
- DOE report to Congress on new electromagnetic technologies for neutralization of radioactive wastes (due in 180 days)

# Federal Government Options

## Do Nothing

Wait until the political situation resolves itself, one way or the other.

Compensate nuclear plant operators for used fuel storage.

Abrogate agreements with states and communities near DOE HLW storage sites and deal with the consequences.

## Do Something

Identify actions that will prepare the nuclear waste management infrastructure for success.

Execute those actions without foreclosing any policy options.

Maintain the knowledge and expertise required to discharge the government's responsibilities.

# Thesis – Productive Actions Can Be Taken

- Should be finite and achievable
- Should avoid “third rail” of Yucca Mountain or CIS
- Should not require congressional authorization
- Should not preclude any future policy options

In addition to the modest ongoing activities and those directed by the FY2020 budget, there are important and necessary actions that can be taken during the next few years

# Re-establish the DOE Office of Civilian Radioactive Waste Management

- Required by current law
- Would provide focal point for federal government HLW management activities
- Would send a message that the government intends to address its responsibilities

# Develop Modern, Risk-based, Generic Standards for Geologic Repositories in the United States

- Current regulations are out-of-date and, in some cases, contrary to international standards and state-of-the-practice
- Revisions take years (sometimes decades) and should be initiated well before they are needed

Environmental Protection Agency  
public health and safety standards

Nuclear Regulatory Commission  
regulations for construction,  
operation, and closure

DOE regulations for siting



# Transportation - Planning, Outreach, and Infrastructure Development

- Complete production and testing of the rail car and associated equipment
- Development relationships with state and local governments, tribes, and other stakeholders
- Work on realistic communication about risk

# National Academy of Sciences Case Studies of HLW Management – What Works?

- International
- Repositories, CIS, and transportation
- Best practices and lessons-learned
- Address risk associated with storage, transportation, and disposal activities
  - Vast gulf between real and perceived risk

# Congressional Budget Office (CBO) Study on Sustainable Funding for HLW Management

- Funding is generally acknowledged to be a major obstacle to long-term program success
  - Budget rules make it extremely difficult to access money that was paid by electricity customers for HLW management
  - Year-to-year appropriations is not a practical approach
- Engage the CBO in solving the problem
  - Identify options
  - Quantify advantages and drawbacks

# Quantify Costs and Schedules for HLW Management Options

- Option 1: Yucca Mountain restart (with and without CIS)
- Option 2: New repository (with and without CIS)
- Option 3: Recycling plus repository (either Yucca Mountain or new)
- Option 4: Indefinite storage at current sites
- Option 5: Indefinite storage at CIS facilities

# Conclusion

- HLW is too important to ignore
- Superman is not coming
- Policy options will not be resolved in the near-term
- It makes sense for the government to do what it can, now
  - Productive actions can enable success in the longer term
  - Doing nothing solves nothing

