Federal Spent Fuel Management Policy is a Failure

- Since passage of Nuclear Waste Policy Act in 1998
  - Yucca Mountain has been officially designated but is essentially padlocked
  - No reasonable alternative has been considered
  - All sites – shutdown and operating – have had to solve their own problem
The Cost of Inaction is High

- $15 billion spent on Yucca Mountain
- GAO (Government Accountability Office) reports through 2016 that $6 billion has been paid in damages
- GAO projected future liabilities in damages at $25 billion
- For utilities, even when cases are “won” they do not cover costs

The Number of Shutdowns is Increasing

- Today there are 98 reactors operating across 60 sites
- In the last five years six have closed – Crystal River, San Onofre, Kewaunee, Vermont Yankee, Oyster Creek and Fort Calhoun – there are now 15 shutdown sites and the Morris Independent Spent Fuel installation
- Though subject to change, over a dozen announcements in recent years about planned future closings
Permanently & Announced Shutdown Nuclear Plant Sites

Yucca Mountain

- Selected through the National Waste Policy Act (NWPA) process with 1987 modifications
- In 2002, vetoed by the State of Nevada
- Local support for Yucca exists, but Las Vegas tourism industry fears drive state political response
- Congressional veto passed with overwhelming bipartisan support
- Under the Obama Administration, with help of Sen. Harry Reid (D-NV), funding was terminated, and license application was withdrawn
- In 2012, Obama Blue Ribbon Commission recommended a new approach with consent-based consolidated interim storage (CIS)
- US Court of Appeals in August 2013 ordered Nuclear Regulatory Commission (NRC) to restart license review, but, without funding, little progress
Trump Administration

• With Obama and Reid gone, many thought a window of opportunity to restart Yucca Mountain was opened
• New Energy Secretary Rick Perry made his first “out of DC” trip to Yucca Mountain and said “We have a legal responsibility. We have this waste out there. We need to have this licensing issue addressed.”
• Trump Administration put $120 million in funding for Yucca Mountain licensing process in both of their fiscal budgets

Congressional Response

• In May 2018, the House passed legislation to restart Yucca Mountain, HR 3053, by a vote of 340-72.
• The House also included $267 million in the Energy and Water appropriations bill
• The Senate has refused to take up HR 3053
  • Sen. Dean Heller (R-NV)
• Senate appropriators put $35 million in their version of the bill for CIS
• No compromise was reached
Mud in the Waters

• In Las Vegas this month, President Trump signaled opposition to Yucca Mountain: “I think you should do things where people want them to happen, so I would be very inclined to be against it. We will be looking at it very seriously over the next few weeks, and I agree with the people of Nevada.”

Mud in the Waters Part Two

• On Monday Secretary Perry was asked if the Trump Administration supports Yucca. “Yes”
• “I’m going to follow the law. And the law says this has to be funded.”
• “If Yucca is to be closed then I am sure Congress will deal with it and I will follow their instructions.”
Lame Duck Session?

- Industry observers hope for a break in a possible post-election lame duck session
- Sen. Heller’s fate will be decided
- Trump comments are viewed as election fodder, not a complete change in direction
- House leaders are aggressively pushing the issue

Consolidated Interim Storage Proposals Made by West Texas and New Mexico

- CIS is faster, easier and much cheaper to build than Yucca
- Sites appear to have some local and state support
- Technology already exists and has been proven safe
- Federal government could save billions in legal fees
- Transportation and storage could help ease public concerns and pave the way for Yucca
Yucca Supporters are Adamant in Their Direction

- Yucca is the approved site through the legal process – “the law of the land”
- Ultimately the country needs a repository
- Yucca has met Environmental Protection Agency (EPA) and NRC staff requirements
- Using CIS would require two moves of fuel
- Concern that a CIS would become the de facto permanent repository, reducing political support for Yucca Mountain

Dairyland’s View

- We have supported both Yucca Mountain and CIS – together they work to permanently resolve issues
- We need a greater sense of urgency
- Politics, not science or technology, is the issue
- Failure to address the issue also hampers any talk of a new generation of nuclear
- CIS is an easier route
LACBWR Key Facts

• BWR (50MWe)
• AEC demonstration reactor
• Owned by Dairyland Power Cooperative (DPC)
• Operated from 1967 to 1987
• Licensed site shared with operational fossil plant

LACBWR Site
LACBWR Background

• NRC Licensed Transferred from Dairyland Power Cooperative (DPC) to LaCrosse Solutions June 2016
• Decommissioning activities for LaCrosse Solutions commences June 2016 to date.
• LaCrosse Solutions submitted license amendment to NRC to transfer license back to DPC ISFSI only Q-3 2018

Project Status to Date

• The License Termination Plan is the document developed to verify the site is cleaned up to meet Federal Standards for future use as an industrial site.
• The NRC approved the release of 88 of the 165 acres from the site license on April 12, 2017, as non-impacted property available for future reuse.
Project Status to Date

• Waste Transportation and Disposal
  • Radioactive waste is trucked to the trans load facility in Winona, Minnesota. Then it is shipped by rail to the Clive, Utah, disposal facility
  • Net weight of radioactive waste shipped to Clive
    • 62,992,303 lbs.
    • 2163 Intermodals of waste shipped from LaCrosse to Clive
    • 314 Intermodals of radioactive waste remaining to ship
    • 9,106,000 lbs. remaining
    • 144,440 lbs. of Pb (lead) was packaged and shipped to Clive (Mixed Waste)

Project Status to Date

• Finial Status Surveys:
  • The site will be restored back to grade with gravel
  • The State of Wisconsin Department of Health is closely following demolition and cleanup activities on site
  • The NRC has independently verified that the buildings demolished were decontaminated before the building footprint was backfilled. The NRC will continue to verify the remaining areas are clean.
  • Target for completion summer 2019
Intermodal Waste Container Storage Yard

Loaded IM Shipment to Rail Yard
Loaded Rail Car Shipment to Clive

Demolition Activities

- Removal of Reactor Bldg. Siding
- Diesel Generator Building Demolition
- Stack Demolition
Reactor Bldg. Liner Opening

Reactor Containment Tent
Reactor Bldg. Interior Demolition

Reactor Bldg. Interior Demolition
Reactor Building Demolition

Reactor Bldg. Below Grade Demolition
Closing Thoughts

• In an era of climate concern, loss of operating plants makes no sense
• US needs a nuclear policy based on science, technology
• Public needs to understand safety of transportation and storage
• CIS is more likely to be built, but Yucca defenders may have their say