

(Prepared by Glenn Pascall – January 30, 2015)

Taking Action to Address Nuclear Waste - II

Key Finding

The Federal government should act – or give states the power to act.

Basic Principles

- The doctrine of public trust: Government must do its job. Politicians must address the public good. Credible regulation respects all parties while captive regulation often backfires on industry.
- Political will and a sense of urgency – or at least a sense of inevitability – as the public realizes that 70 years since reactor waste was first generated we have no safe disposal and more than 100 nuclear plants are still generating spent fuel.
- The crucial interaction between public trust and public will. When people don't trust, they will defend entrenched positions rather than agree on actions.
- The need for reliable information to focus diverse groups on a shared set of facts related to strategy choices.
- Nuclear waste strategies that are equally valid regardless of outcomes on other issues related to the future of the nuclear industry.
- When the best course in a complex situation is unknown, keep the pressure on each option to prove itself.

Track I: The Federal government acts

- A stand-alone entity is created with a dedicated source of funding and the sole mission of long-term management of nuclear waste, including authority to negotiate legally binding contracts. An independent panel is set up to provide oversight of the entity's policies and actions.
- The entity launches a process to identify up to 3 geologic repositories. The Yucca Mountain license application process is completed to clear the air by determining whether Yucca should be part of the "list of 3."
- Congress reauthorizes collection of fees to support operation of remote sites, with provisos protecting these funds for their intended use and specifying that payments are made in return for results.

Track II: States are empowered to act

- Congress agrees to relinquish exclusive Federal control and empowers states to develop interim and possibly long-term solutions. The goal is maximum consolidation of waste with minimum Federal effort.
- Congress gives states meaningful regulatory authority to address environmental issues related to nuclear waste storage sites.
- Congress gives states access to financing from decommissioning funds in proportion to transfer of authority and activity from Federal to state level.
- Congress gives states authority to execute Federal laws even in areas where the federal government has not relinquished control.
- Congress gives states authority to develop consolidated interim storage sites. States determine how much waste each site could handle.
- Congress gives states authority to enter into interstate compacts for operation of regional consolidated facilities. States apply this authority within their own borders and regionally, and with non-contiguous states.

Steps required for either track

- Recognize that remote geologic long-term storage is the underlying presumption for many aspects of a unified strategy.
- Establish firm, clear and consistent procedures at the front end to “set the table” for a credible process – as has been done with the Superfund and RICRA. Recognize “institutional trajectory” as more crucial than individual performance.
- Establish standards for agency and contractor personnel. Recognize that human error is inevitable but that repeat or egregious errors should carry career consequences.
- Commit to develop up to 3 geological repositories, without which interim consolidated facilities involve moving waste around with no clear end point.
- Given the amount and geography of nuclear waste, establish a patient, integrated siting program providing a bid process enabling communities, private and tribal operators to compete as host sites for interim consolidated storage.
- Authorize host communities to tell the Feds and/or the states what they need in technical support, economic incentives and environmental protection.

- Develop definitions of “consent” that are appropriate spatially (geographic reach) and temporally (over time).
- Provide strong protections to prevent interim sites – which typically involve fewer safeguards - from becoming permanent sites. Minimize multiple transfers by anchoring the system with national repositories.
- To protect public safety and maintain a credible long-term strategy, provide back-up systems at each facility as “defense in depth” against human error and unanticipated technical problems.
- Grant spent fuel at decommissioned reactors - “stranded sites” - priority for consolidated interim storage and / or long-term storage. At each site, expedite transfer from fuel pools to dry storage and from open to secure storage.
- Develop transport protocols based on safety, security, efficiency and public acceptance. Meet with “transit communities” along routes to review why spent fuel shipments serve a national purpose and how their risks compare with commercial hazmat and chemical weapons.
- To assure safety, monitor long-term environmental impacts at operating facilities and apply adaptive management to changing conditions.
- Do not assume solutions will arise from future technologies, but develop effective mechanisms to apply technical advances as they come on-stream.
- Reflecting U.S. slippage from a leadership position, learn from best practices abroad.