

Summary of presentation  
To  
BRC Disposal Sub-Committee  
July 7, 2010  
By  
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1. Brief introduction and acknowledgement that nuclear power demand will grow as electricity demand grows at a projected rate of 1% per year over the next 40 years. If mitigation of climate change and electrification of the transportation system are our goals nuclear power is the only cost effective way to accomplish it. Therefore, a deep geologic repository is absolutely necessary.
2. A history of the WIPP project development from Salt Vault in 1972 through today where WIPP is the only licensed deep geologic repository in the world. Laws, oversight and agreements that were made to enable WIPP to go forward. Some statistics about production and activity and its enormous success.
3. Safety and the focus on it was a major key to WIPP's success. The valuable oversight of many agencies and paid critics were instrumental in making sure nothing was missed.
4. A discussion of salt and its potential future for orphan wastes, defense HLW and commercial HLW waste forms.
5. Steps to success:
  - a. Establish a desired repository medium
  - b. Find willing Community
  - c. Assure state is agreement
  - d. Commit to incentives
  - e. Sign long term agreement with state that they cannot back out except for scientific or health and safety reasons agreed to by NRC or third party
  - f. Spend enormous time educating community and state every step of the way
  - g. Design a transportation system with the specific disposal site in mind
  - h. Move the Civilian Radioactive Waste Fund into a Private/public partnership and get it out of the hands of politics
  - i. Give guarantees to host community and state that, if they so choose, they will have any other facilities associated with the fuel cycle located in the community as a benefit for taking the waste
6. Review of the three next steps to complete the cycle.
  - a. Interim storage to remove waste from decommissioned facilities, help power plants that are full, stop law suits and give us a breathing period.
  - b. Test salt with Defense HLW, which is already reprocessed and is destined to be vitrified. It is less hot thermally than commercial and can establish certainty about salt performance. A slide is included to see the comparison of commercial, defense and RH-TRU waste. It is important to note that the heat from the fission materials have a relatively short half life

and if they were allowed to decay on the surface would meet WIPP waste acceptance criteria after about 90 years.

- c. Then move to reprocessing and disposal of commercial HLW
7. From WIPP where only one community would investigate it, to the LES enrichment facility that only two communities wanted it, to GNEP where 30 communities wanted it to the proposed Areva facility where 200 communities wanted it, there has been a significant change in attitude in the U.S. related to nuclear power and by-products.