



Importing High-Level Radioactive Waste to Texas... What Could Go Wrong?

April 30, 2014

Karen Hadden, SEED Coalition

Rep. Lon Burnam, District 90, Ft. Worth

Robert V. Eye, Attorney

Dr. Arjun Makhijani, Institute for Energy & Environmental Research

Dr. Elliot Trester, Texas Physicians for Social Responsibility

Tom "Smitty" Smith, Public Citizen's Texas Office

High-Level Waste Importation is Being Considered by Texas Legislature



Interim Charge to Texas House Committee on Environmental Regulation

January 2014, from Speaker Joe Straus

- Study the rules, laws, and regulations pertaining to the disposal of high-level radioactive waste in Texas and determine the potential economic impact of permitting a facility in Texas. Make specific recommendations on the state and federal actions necessary to permit a high-level radioactive waste disposal or interim storage facility in Texas

Governor Perry: Radioactive Waste Booster



- Governor Rick Perry wrote to Lt. Gov. Dewhurst and Speaker Joe Straus supporting bringing in high-level radioactive waste – which is mostly spent fuel rods from nuclear reactors, the hottest of radioactive waste – for storage or disposal
- Told a West Texas TV station that there is a “legitimate site in West Texas”
- A TCEQ report was included with his letter:

TCEQ Assessment of Texas’s High Level Radioactive Waste Storage Options, March 2014

<http://www.documentcloud.org/documents/1100389-tceq-assessment-of-texas-high-level-radioactive.html>



Spent Nuclear Fuel – Deadly and Dangerous

LETHAL DOSE: Unshielded – a person one meter away can receive a lethal radiation dose, would be incapacitated immediately and die within a week

Radiation field would be over 20,000 rem/hour, 5,000 rem/hour would be a lethal dose – according to TCEQ report

Spent nuclear fuel “would damage the environment if the spent fuel pellets are aerosolized and dispersed”

RISKS

- transportation accidents or leaks, airborne spread radiation, water contamination
- Extreme weather risks – tornadoes, flooding, wildfires
- Security risks, earthquakes
- Financial risks from cleanup of accidents or releases

TCEQ High Level Radioactive Waste Report

- “Any federal or private program to manage spent nuclear fuel (SNF) must be done in a way to reduce political uncertainty – and minimize state and local opposition through stakeholder meetings, finding volunteer communities, financial incentives and a fair and technically rigorous process”
- The report says “If the methodology used for siting these two sites is built upon, the siting and construction of a SNF storage or disposal facility is not only feasible but could be highly successful.”
- Examples used: Waste Isolation Pilot Plant – underground repository for nuclear weapons waste in Carlsbad, NM and Waste Control Specialists’ Low-Level Radioactive Waste dump in Andrews County

WIPP Site Failure



- WIPP site – touted as a gold-star standard repository for high level radioactive waste
- Was never supposed to leak
- Feb. 5, 2014: Less than 15 years into the 15,000 years needed for waste isolation, the site had an underground fire
- Feb. 14, 2014: Plutonium and americium leaked – detected 26 miles away
- 21 workers exposed to radiation.
- WIPP waste now coming to WCS since the the future of WIPP is uncertain.
- Safety failures found to be “pervasive”



Texas-Sized Risks

- Waste Control Specialists' site in Andrews County is one site under consideration
- The entire TCEQ radioactive waste staff recommended against licensing the WCS site due to the presence of water and contamination risks.
- 40% of monitoring wells showed water present (Oct. 2013)
- WCS license continually being expanded; protective provisions are being gutted – a bad precedent.



NRC - Technical Challenges:
Long-term degradation
Response to external natural events
Cladding integrity
Higher burnup fuel
In-situ monitoring

Centralized Storage NOT needed

- Spent fuel pools at many nuclear reactors are getting full, but the waste can be transferred to dry cask storage and be stored on site
- No centralized interim storage site is needed – here or elsewhere
- NRC: 33 states have at least one Independent Spent Fuel Storage Installation (ISFSI) already – and 63 are licensed
- Dry casks can remain onsite for licensed life plus 60 years. Maybe a permanent repository will be developed by then.
- Why transport highly radioactive waste across the country, risking accidents, leaks and contamination?