

Testimony of Dr. Edward L. Wilds Jr. before the Transportation and Storage Subcommittee of the Blue Ribbon Commission on America's Nuclear Future on Tuesday, August 10, 2010 in Wiscasset, Maine

I would like to thank the Transportation and Storage Subcommittee of the Blue Ribbon Commission on America's Nuclear Future for the opportunity to speak this morning.

My name is Dr. Edward Wilds and I am the Director of the Radiation Division at the Connecticut Department of Environmental Protection and Connecticut's designee to the Northeast High Level Radioactive Waste Transportation Task Force. The Department of Environmental Protection is an Executive Agency of the State of Connecticut. It is charged with representing the public's interest with regard to matters related to ionizing radiation and the Radiation Division is specifically responsible for this function within the Department.

This morning I am going to limit my comments to issues related to single unit decommissioned sites since that is the focus of today's meeting and they present unique problems. Specifically I would like to address issues related to land use, security, environment, and transportation.

1) Land Use Issues

- a) Several of the single unit decommissioned sites remained licensed under 10 CFR Part 50 to take advantage of an Independent Spent Fuel Storage Installation general license. This means that the sites remain subject to EP requirement for operating reactors and this causes uncertainty in determining how to effectively address future land use. Presently, the size of the owner controlled area coupled with the existing accident and design basis treat analysis effectively limits the consequence to onsite. If land is sold off and developed, there is the potential that future changes in the types of accidents and/or design basis threats analyzed could result in an offsite consequence. This would require the sites to re-develop full offsite emergency planning activities with the potential re-establishing of emergency planning zones.
- b) Under the existing regulatory framework, a 10 CFR Part 50 licensee must evaluate future onsite activities for threats to the fuel before they are implemented and future offsite activities that potentially threaten the fuel when they become aware of it and then mitigate the threat to ensure safety of the fuel. Depending on the type of redevelopment of the land sold or ownership transferred, future activities not related to the Independent Spent Fuel Storage Installation may threaten fuel storage causing a delay in ensuring mitigation of the threat. These threats could be from new technologies or industries not in existence today. To address this potential situation, then either the development of the land is controlled by the company trying to shut down, land use restriction must be put in place to limit the future development of land, or allow a future potential threat to the fuel to exist with a delay in mitigation of a threat to the fuel. All options are undesirable for redevelopment.

2) Security

- a) The cost of increased staff, training, maintaining qualifications, and management of multiple facilities adds expense to our security efforts at no benefit to security.
- b) With U.S. Nuclear Regulatory Commission requiring decommissioned sites licensed under 10 CFR Part 50 to comply with operating reactor security requirements; this demonstrates that regulatory requirements on decommissioned sites holding a 10 CFR Part 50 licenses will continue to be applied, reinforcing the concerns associated with land use.

3) Environmental Issues

- a) With indefinite onsite storage at multiple locations the fuel at some point will likely be required to be reloaded into new casks. This could be due to degradation of existing casks due to age/decay, or failure to obtain U.S. Nuclear Regulatory Commission recertification. Single unit decommissioned sites performed their decommissioning activities with the federal obligation for fuel management and disposal outlined in existing federal law. They removed buildings and structures for fuel repackaging. Cask reloading would require multiple facilities to be built for fuel handling, one at each site. During fuel handling under these conditions, there is an increase risk for these multiple site locations to become contaminated. This potentially could lead to increased environmental impact due to the increased number of locations, translating into greater national expense and a greater potential for land use restrictions. It would also require the site to be decommissioned a second time.

4) Transportation

- a) Consideration must be given to how to deal with future management of existing spent nuclear fuel in storage at single unit decommissioned sites. When decommissioning activities were being done, these facilities were left to make their best estimate of the storage system to use taking into consideration specific site conditions without any guidance from the federal government on the disposal cask design. Movement of the fuel at these sites must be done using existing approved cask designs and must be done before these casks lose their U.S. Nuclear Regulatory Commission certification for storage and transportation. To require reloading into a different cask or delaying transportation till after the existing casks lose their certification would require fuel handling at multiple sites with all the associated problems of constructing a facility and then decommissioning the site a second time.
- b) Transportation routing and security will be a challenge, but it is not insurmountable. With state involvement as a partner, these issues can be solved. An excellent example of this partnership was the US Department of Energy's Transportation External Coordination Working Group. This group is now being transitioned into the National Transportation Stakeholders Forum. The US Department of Energy learned that engaging the states as partners leads to workable solutions to common issues. I would encourage this partnership be developed for future management of spent nuclear fuel.

I would like to thank the Subcommittee members again for allowing me to speak today and hope that what I provided has been informative and will help you in your deliberations.

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