

Responses to US DOE RFI on Using a Consent-Based Siting Process  
To Identify Federal Interim Storage Facilities

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Response:

As the last Senate-Confirmed Director of OCRWM, I have a very deep understanding of both the technical and political issues surrounding the disposition of spent nuclear fuel. During my tenure as Director, I met with two Governors of Nevada, one Nevada Senator, a number of Nevada state officials and county and tribal leaders representing the Affected Units of Local Governments. I also was a witness in at least six Congressional hearings on Yucca Mountain and the Nuclear Waste Policy Act.

The following responses are based on my experiences and learnings during my tenure from June 2006 to January 2009 and are consistent with my testimony before the President's Blue Ribbon Commission on America's Nuclear Future in 2011.

### **Area 1: Consent-Based Siting Process**

**Question #2: What role should Tribal, State and local governments and officials play in determining consent for a community to host a federal interim storage facility?**

Answer:

The simple answer to this question is for the federal government to start discussions at the state level first. The failures to progress the Yucca Mountain site to the licensing hearing phase, the failure of the Private Fuel Storage (PFS) project in Utah and the latest opposition to the proposed private storage project in Texas are all due to political opposition at the State level, not the local level. Because the siting and licensing

process will be extended over at least a decade, the political office holders will change over that period. Even if an initial willingness is expressed to host a facility, the state leader incumbents are likely to change before the facility is completed leading to a potential withdrawal of consent. It is therefore imperative that a Federal-State legal agreement or state legislation authorizing the project to proceed within that state and under what conditions be in place prior to expending federal funds on the development of the facility. Once that is in place, discussions with local units of government in locations that have the appropriate requisite access to transportation infrastructure and geologic characteristics can begin.

**Question #4: What are the barriers or impediments to successful siting of federal interim storage facilities using a consent-based process and how could they be addressed?**

Answer:

There are two primary barriers to making the consent-based siting process work: Time and Site Adequacy.

Regarding time as a barrier, the time needed to build consensus, evaluate potential sites, design and license a facility and determine transportation routes is long, at least ten and probably closer to 15-20 years. Over this time, players who are needed to maintain their consent will change, probably several times as local elections are held as will the political, social and community entities that will want to be involved.

Regarding site adequacy, not every location where consent might be achieved will be suitable for a storage facility or permanent repository. The geological features must meet certain regulatory criteria and adequate transportation infrastructure must be accessible and in place to allow transport of spent fuel canisters via road or rail or both. The transportation routes will expand the number of entities that will want to have a say in the siting beyond local entities at the site. The opposition of entities on the transportation routes is what killed the PFS project.

I'm not convinced that these barriers can be adequately addressed. But if I were to try, the following strategy would be where I would start:

- Use existing DOE studies to narrow down the potential states and locations in those states that have adequate geological characteristics and transportation infrastructure to host a facility.
- Begin discussions at a high level between the state governments and the federal government on interest and potential conditions to putting a legal agreement or legislation in place authorizing an interim facility in that state.
- Negotiate a binding agreement which clearly states the conditions of moving forward in that state including what involvement and consent is required, by whom and by when for the different stages of the project.

### **Area 3: Interim Storage as Part of a Waste Management System**

#### **Question #3: To what extent should development of an interim storage facility relate to progress on establishing a permanent repository?**

Answer:

It will be extremely difficult if not impossible to proceed with interim storage in any state unless there is some certainty regarding how long the spent fuel will remain in that state. State and local political leaders will not put themselves in a position of having to defend a decision to support interim storage when they can't define the duration of an interim period. They know that DOE can't guarantee a specific date by which spent fuel will be removed until and unless a permanent repository is in operation and the contractual issue of what spent fuel stands where in the receipt and shipping queue is resolved.

#### **Question #4: What other issues should the Department consider in developing a waste management system?**

Answer:

The Department has developed, sponsored and reviewed numerous studies on this topic over the last 30 years. It should undertake an internal review of all of these studies and make a determination of which of the recommended actions it should sponsor in new legislation to give it the authority it needs to execute its mission and provide a workable solution to the spent fuel disposition issue.

There are several issues which are essential to address if any progress is to be made:

- **Access to the Nuclear Waste Fund (NWF):** The classification of the disbursements of the NWF as Discretionary made the funding of the program subject to the political whims of the annual appropriations process. Studies have recommended potential fixes for this problem. Any long-term capital intensive project cannot be successful unless the management has control of and assurance of the availability of the funding for the cash flow needed to execute to its schedule and contracts.
- **Longevity of Management:** The ability to attract and retain experienced managers and leaders is essential for any long-term project or program. The structure of OCRWM within DOE proved to be less than adequate in this regard. The Director as a political appointee had a very short tenure and the duration of the confirmation process discourages almost all qualified candidates from agreeing to be considered. Compensation for the senior management team needs to be commensurate with the private sector in order to attract and retain qualified managers.
- **Independence of the Responsible Organization:** The long-term strategies, plans and budgets of the organization responsible for managing the waste management system need to be independent of the shifting political landscape

that occurs every two years with a new Congress. Several of the aforementioned studies provide potential solutions to this issue. One should be selected and implemented via legislation.

- Determine the number of interim storage sites and repositories required: Until the number of sites required is determined, there will be no target for the program managers to shoot for. The Department completed a published study in 2008 on the adequacy of the Yucca Mountain design to accommodate more than the authorized amount of spent fuel. That study should be reviewed and updated to show if the conclusion of that report that Yucca Mountain can adequately hold all spent nuclear fuel is still valid.
- Determine the adequacy of the Nuclear Waste Fund: The Department completed and published a study in 2008 on the adequacy of the NWF to fund the construction and operation of the Yucca Mountain Repository. Since that time, a number of inputs to that study have changed, not the least of which is the stoppage of collection of the fee from nuclear waste generators. It is almost certain that the NWF does not have sufficient funds to build one or more interim storage sites and a repository and transport spent fuel between them.
- Finish the adjudication of the Yucca Mountain License Application: The potentially shortest and least costly near-term path to progress is to proceed with the adjudicatory hearings with the US Nuclear Regulatory Commission (NRC) on the already submitted Yucca Mountain license application. NRC staff review has been completed and their Safety Evaluation Report Issued. The remaining costs of concluding these hearings and getting a final NRC decision on the adequacy of Yucca Mountain as the nation's high level waste repository are miniscule when compared to the sunk costs already incurred and the costs of starting over. Once the hearings are concluded and the final determination is made by the NRC, the nation will know whether or not Yucca Mountain is a viable solution. If not, then start over. If so, proceed to figure out how to break the political logjam and address the issues listed above.