

To: SONGS Community Engagement Panel (CEP)

From: David G. Victor
Tim Brown
Dan Stetson

Re: Moving SONGS spent nuclear fuel: the role of Consolidated Interim Storage (CIS)

Date: 25 August 2015

Summary

This memo explores the options available to the CEP as we consider the question of how to move the spent nuclear fuel from the San Onofre site as quickly as possible. Action at the federal level continues to be an option, but a much more promising option lies with “consolidated interim storage (CIS).” Some private companies, notably in Texas and New Mexico, are already emerging that could take the spent fuel from SONGS and other power plants and store it until a permanent repository, such as Yucca Mountain, becomes available. The CEP has discussed this option extensively and learned that there is substantial and growing grassroots political support for offsite CIS.

Whether CIS becomes reality will depend on a huge amount of political, regulatory and policy spadework. There are questions surrounding transportation routes, funding, and many other topics that could become severe obstacles to making CIS a reality. State-level support for this option will be critical, and this memo suggests that we explore options in Sacramento for creating a select committee in the State Legislature and/or a program at the California Energy Commission (CEC) to develop an interim storage strategy for the state.

In addition, we suggest that CEP members should continue their efforts to reach out to local city councils, other governing bodies, environmental groups and other key stakeholders to build awareness of the importance of CIS for the San Onofre communities and the State of California more generally.

The issues

Over the last 18 months the CEP has devoted a substantial amount of attention to the challenges of storing high-level nuclear waste. Most of the waste generated at the plant during decommissioning is so-called “low level” nuclear waste and will be shipped to permanent repositories. That process is already under way.

But the high-level waste—in particular, the spent fuel rods—seem destined to remain at the site for the foreseeable future. The original “deal” at nuclear plants envisioned that the federal government would charge operators of nuclear power plants for the service of removing the fuel from each site and storing it permanently at a single national repository— currently in the form of Yucca Mountain. For years, the government charged operators for this service—with the money amassing in a trust fund—and began the process of building and licensing Yucca Mountain. Now, due to the political landscape and possible environmental issues, Yucca Mountain may never come to fruition. Indeed, the Department of Energy recognizes this fact and is now developing alternative sites and technologies for the permanent storage of defense nuclear waste that originally was to be stored at Yucca. Meanwhile, nuclear plant operators have successfully sued to stop paying into the trust fund with the understandable logic that they should not be paying the government for a service the government has no practical plan for delivering. Yucca might yet open one day, or it might be dead in the water.

That leaves us in the communities surrounding San Onofre in a difficult situation. We have looked closely at the technologies that will be used to store the fuel in dry casks on site. Those technologies are robust, but they need short and long term oversight and we have a good process in place for ensuring that the appropriate oversight is in place.¹ It makes little sense for San Onofre and the growing number of other decommissioning sites to leave fuel on site for the long haul, even after major decommissioning has been completed. People want the spent fuel moved out of their community.

Proposals for CEP Action

Over the last year we have seen a seismic shift in how the United States might store spent fuel. Two major companies have announced plans to build CIS facilities—one in West Texas and the other in southeastern New Mexico. Plans for yet more facilities may emerge as well. In addition, the Department of Energy has signaled that it too, favors CIS as a practical way to store spent fuel. The DOE has done this even as they continued with efforts to bring the beleaguered Yucca Mountain permanent repository online. New legislative proposals that are supportive of CIS, including legal reforms needed to help pay the cost for CIS, are advancing in both the House and the Senate.

The CEP has discussed these developments several times, and the tenor of our discussions has been highly supportive. Done well, CIS could allow SONGS to move spent fuel out of our community.

¹ David G Victor, “Safety of Long-Term Storage in Casks: Issues for San Onofre,” Report of the Chairman of the Community Engagement Panel of the San Onofre Nuclear Generating Station, 9 December 2014. Songscommunity.com

The CEP discussions have also made it clear that CIS won't happen automatically. Many other reactors have spent fuel that can be stored at these sites, and failure to offer practical solutions to a host of problems, such as transport of the spent fuel out of California, could make CIS impractical for us.

The discussions we have had within the CEP point to three concrete sets of actions.

First, we should continue the process of building grassroots political support for CIS. This requires continuing the efforts to pass city council and other resolutions in communities around the plant—and to ensure that those resolutions are supportive of a prompt movement of spent fuel from SONGS. It also requires canvassing major stakeholders, including environmental and consumer groups, to solicit their support and to explain why CIS is important.

Second, we should work with Sacramento to ensure California and possibly the entire west coast get ready for CIS. At present, the debate around nuclear waste in California has mostly focused on lamenting the lack of a serious federal policy. We must help Sacramento understand that there are now alternatives that could be feasible in the right regulatory and political environment. The discussions within the CEP and with experts on CIS policy and regulation strongly suggest that we in the San Onofre communities could do all the needed spadework ourselves. Many of the issues revolve around state regulation and we need a state-based strategy. Building that strategy will require an organization that is well-linked to the relevant state regulatory bodies yet also has analytical capabilities and experience with developing politically viable and technically-informed policy strategies. It may be important to pursue efforts that build awareness and support within the California legislature. To do that we need to engage the key Senators and members of the Assembly.

It may be useful to gain the support of the California Energy Commission (CEC) to do a strategic regulatory analysis that could lay the groundwork to make CIS a reality. Doing that would require answering a series of questions—some technical and others political. The CEC is uniquely qualified to answer these questions:

- What would be appropriate sequencing of shipments—which waste should be shipped first and what should be left on site longer?
- If problems arise with the use of NWF funds to pay for transport and interim storage how could state regulators and trust fund administrators backstop contributions from in-state reactors?
- What kinds of test shipments and activities will be needed to certify that rail and road transport systems are licensed and adequately regulated? If the storage facility is located in another state—for example, Texas—what kinds of bilateral regulatory cooperation would be needed so that testing regimes developed in one jurisdiction would be recognized in another (e.g., Arizona and New Mexico)? How should California engage effectively with other groups, notably the Western Interstate Energy Board (WIEB), that have already done extensive work in this

area so that private developers see an effective but favorable regulatory environment rather than a discouraging cacophony of state rules?

- As sites are developed in other states should California or Californian operators of nuclear sites contribute to testing and development of those sites?
- Can California credibly defer to the NRC to regulate shipments, as currently required under federal law, or would the state impose other rules and regulations?
- Do state agencies (including the CEC) need additional authority from NRC or other federal bodies in order to advance a state-led effort to advance consolidated interim storage.
- Do the states need to develop a CIS Engagement Agreement that would demonstrate their commitment to the idea as well as establish responsible agencies, clear lines of communication and common objectives?
- Can California delegate to the US Department of Transportation (DoT) to develop transport routes and the needed consent from the communities along those routes? Or should California itself—either at the state level or through the counties that do something to jump start or oversee that process?

Private firms that are developing (or considering) consolidated interim storage see the waste in California as a huge opportunity. To encourage a private interim solution to our waste problem, we need credible answers to these types of questions above. The CEP would want to work with others—including BPC and Western Interstate Energy Board (WIEB) as well as the CEC—to help articulate a full list of questions needing addressed. The CEP discussions suggest, that when the time is right, we should invite representatives from these firms to visit the CEP and talk about their plans with the public.

Third, we should consider what might be done at the federal level. So far, the CEP has not had much discussion of this topic and there may be little that we can actually do. We should track the legislation moving through Congress. As we develop support for CIS we should brief our DC representatives to make them aware of the importance of CIS for California. We should be supportive and inviting of the DOE efforts to make CIS a reality and help them where we can—including with invitations to the head of the DOE effort (John Kotek) to visit the CEP. We will need advice on whether there is more that can and should be done in DC.

We have a strong interest in demonstrating credibility and interest to as many consolidated interim storage facilities as possible. So far there may be at least two projects at various stages of preparedness—the PFS facility and now the Waste Control Specialists facility in Andrews County along the Texas/New Mexico Border—with perhaps several others to appear in the coming years. For us, there is good news with competition in the industry and options for policy makers—so that, unlike Yucca mountain, we are not held hostage to problems at one site.