

NRC Panel Topic: “Discussion of NRC’s regulatory framework for dry cask storage and transportation of spent nuclear fuel and related research activities” (Public Meeting)

David Victor Presentation: “Community Engagement on NRC’s regulation of dry cask storage and transportation of spent nuclear fuel” (7 minutes)

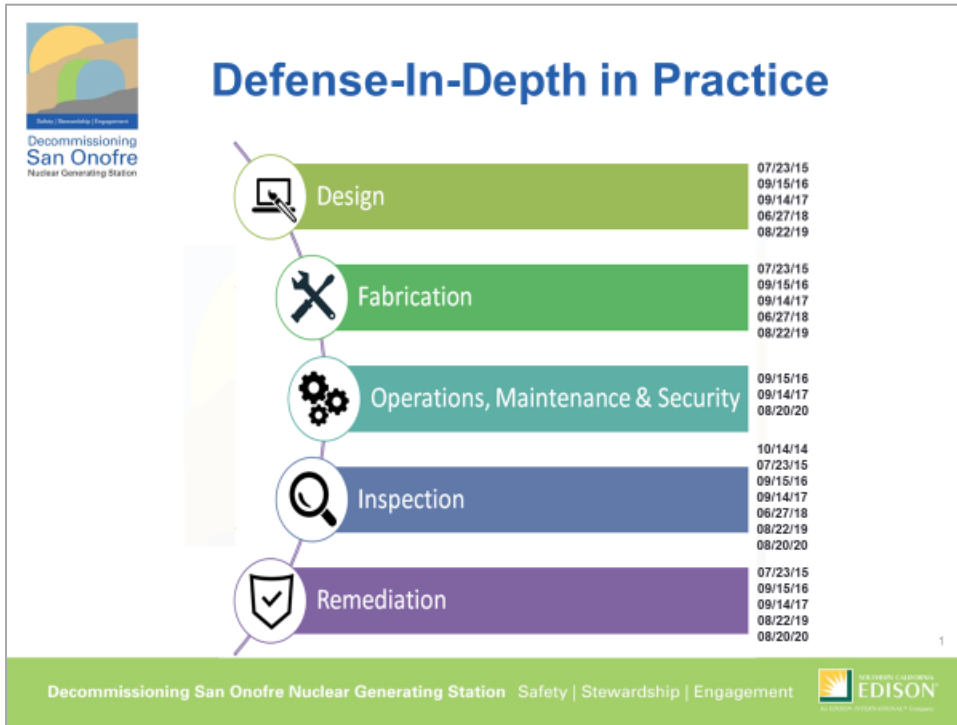
Major Discussion Points

- 1. Despite shutdown of the plant, ongoing concern and controversy around the site, at least with segments of the local population. Much of that focused, today, on spent fuel.**
 - a. See agendas and major takeaways from SONGS Community Engagement Panel (CEP) meetings over the last year as example.
- 2. “Defense in Depth”: Confronting lack of a licensed off-site storage or disposal facility for commercial spent nuclear fuel**
 - a. Upon SONGS entering decommissioning, many local stakeholders were taken aback to learn the spent nuclear fuel is stranded at San Onofre
 - b. Various elements of defense-in-depth has been a topic of interest in the communities surrounding San Onofre, and has been addressed regularly over the SONGS CEP’s history (see appendix).
- 3. NRC regulatory framework should be a “floor, not a ceiling”**
 - a. Through engagement with the local community and local regulators, flexibility to exceed regulatory requirements has been important for the licensee.
 - b. NRC should expect more of this as communities surrounding nuclear sites across the country all are different, and each will want to have a voice as it relates to at-reactor storage. Some will want to exceed NRC standards.
- 4. The need for a strategic approach to long-term management of on-site spent fuel.**
 - a. Aging management “above and beyond” NRC standards
 - i. For the relatively new Holtec system, SCE already has an “inspection & maintenance program” in place due to a commitment in a state agency permit, along with demonstrated repair
 - ii. For the NUHOMS system, SCE has worked with TN to develop an inspection ring that can be deployed for enhanced inspections as per ASME Code Case N-860
 - iii. Engagement with industry research and collaboration
 1. EPRI Extended Storage Collaboration Program (ESCP) Inspection and Monitoring Task Group; EPRI Mitigation and Repair Task Group; NEI Used Fuel Working Groups, Decommissioning Plants Coalition, etc.
 - iv. Test canister program (Holtec in place; NUHOMS in-the-field test canister program under development)
 - v. May 2020 non-classified, non-Safeguards “Outlier events” meeting in response to community interest
 - b. ISFSI radiation monitoring system
 - i. Streams real-time data to independent agency, California Department of Public Health Radiologic Health Branch produces monthly public reports
 - c. Off-site emergency response

- i. Agreement with off-site responders to continue to provide support as long as spent nuclear fuel remains on site at San Onofre
 - d. Development of strategic plan for relocation of spent fuel (guided by lawsuit settlement)
 - i. Made more complex and important due to failures in siting a permanent repository
 - ii. Key points:
 - 1. Consent-based consolidated interim storage facility probably essential
 - 2. Requires federal legislation (changes to NWPA) and appropriations
 - 3. Consent for host communities and those along transportation routes
- 5. **What does “defense in depth” mean in practice (see slide in appendix)**
 - a. Design: e.g., Use of 5/8-inch thick, 316L stainless steel for canister shells
 - b. Fabrication: e.g., Peening, over-rolling, 2-pass welds (Holtec) to reduce residual stresses
 - c. Operations: Maintenance and security for dry cask storage
 - i. Considerable interest in fuel transfer operations after August 2018 downloading event
 - ii. Dedicated most of subsequent 3 CEP meetings (4Q 2018 and 1Q/2Q 2019) to addressing scratches, inspections, enhanced downloading procedures
 - d. Inspections: e.g., Remote robotics, in-situ inspections, inspection ring
 - e. Remediation: e.g., Metallic overlay

APPENDIX

Regular attention to defense-in-depth (DID) through the CEP. See topics and meeting dates below:



Year	CEP Meeting Topics (Bold = DID)
1Q 2020	Decommissioning and Fuel Transfer Operations
3Q 2020	SONGS Decommissioning Update and Dry Cask Storage: Defense-in-Depth
1Q 2019	Dry Cask Storage: Defense-In-Depth (DID)
2Q 2019	Fuel Transfer Operations: Status & Path Forward
3Q 2019	Canister Downloading Event: Lessons Learned and Understanding Incident
1Q 2018	Decommissioning Plan and Fuel Transfer Updates
2Q 2018	Dry Cask Storage Defense-In-Depth
3Q 2018	Spent Fuel Transportation
2Q 2017	Consolidated Interim Storage (CIS)
3Q 2017	Aging Management
2Q 2016	Consolidated Interim Storage
1Q 2015	Nuclear Waste
3Q 2015	Defense-In-Depth
1Q 2014	Spent Fuel
4Q 2014	Dry Cask Storage

Year	Design	Fabrication	Operations, Maintenance & Security	Inspection	Remediation	Total DID topics per year

Victor, Comments to NRC, February 2021

2014				X		1
2015	X	X		X	X	4
2016	X	X	X	X	X	5
2017	X	X	X	X	X	5
2018	X	X		X		3
2019	X	X		X	X	4
2020			X	X	X	3
	5	5	3	7	5	25