

## DOCKETED

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*Southern California Edison*  
**2016 IEPR-Nuclear 16-IEP-07 CEC-SCE-001**

**DATA REQUEST SET 16-IEP-07 CEC-SCE-001**

**To:** CEC  
**Prepared by:** ACLlorens  
**Title:** MPP  
**Dated:** 05/25/2016

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**Question 2b:**

***Section 2: Nuclear Power Plant Data Request for Diablo Canyon Power Plant and San Onofre Nuclear Generation Station. Progress in Spent Nuclear Fuel On-site Management***

**B. Spent Fuel Pool and Independent Spent Fuel Storage Installation - Diablo Canyon and San Onofre**

2b. Please provide an updated evaluation of the potential long-term impacts and projected costs of spent fuel storage in pools versus dry cask storage of higher burnup fuels in densely packed pools, and the potential degradation of fuels and package integrity during long-term wet and dry storage and transportation offsite

**Response to Question 2b:**

All nuclear spent fuel generated at SONGS is stored in accordance with the regulations and requirements of the NRC in the SONGS 2&3 spent fuel pools or in dry cask storage canisters at the SONGS ISFSI. Both wet and dry storage of spent nuclear fuel are safe. Fuel is not expected to degrade during long-term wet or dry storage. Dry storage is considered preferable for a permanently shut down site that will be undergoing decommissioning. SCE plans to move all spent fuel at SONGS 2&3 currently in wet storage into dry storage by 2019, the base case used in the 2014 SONGS 2&3 Decommissioning Cost Estimate. SCE performed a sensitivity analysis of the cost to delay the transfer of the spent fuel to dry storage until December 2023 and determined that spent fuel storage costs would increase by \$490.4 million. Dry storage is a safe, secure, passive economical system for long-term storage of spent fuel. Dry storage enables SCE to retire active systems and components, including energized equipment and the associated maintenance, a change that enhances worker safety. Using less equipment also means SCE can reduce the size of the San Onofre “footprint” that requires security surveillance. All of these changes set the stage for a more efficient decommissioning, and provide cost savings for customers.

The NRC defines high burnup fuel as having an average burnup of greater than 45 GWD/MTU (NRC Interim Staff Guidance -11 Revision 3, Issue: Cladding Considerations for the Transportation and Storage of Spent Fuel). Currently, there are 1115 high burnup fuel assemblies in wet storage at SONGS, and 8 high burnup fuel assemblies stored at the SONGS ISFSI. Typically, high burnup fuel will require a longer period of wet storage prior to being

transferred to a dry cask storage canister. Storage of high burnup fuel is not expected to result in any degradation. The Areva dry cask storage canisters on the SONGS ISFSI are licensed to store and transport high burnup fuel. Based on testing in the laboratory and modeling, NRC staff has determined that high burnup fuel can be safely stored and transported. The NRC, DOE, and EPRI continue to study and evaluate high burnup fuel. The studies and tests are confirmatory in nature. The Holtec dry cask storage canisters to be used on the SONGS ISFSI are licensed to store high burnup fuel. The Holtec cask license application for transportation is currently under NRC review and includes high burnup fuel.