



Decommissioning San Onofre

Nuclear Generating Station

Safety | Stewardship | Engagement

San Onofre Decommissioning Update Community Engagement Panel Meeting Edition August 22, 2019

- **Seismic Safety at San Onofre**
- **SONGS Emergency Sirens**
- **Wheeler North Reef**
- **SONGS public tours, speakers for community meetings and navigating the website**

Seismic Safety at San Onofre: The July 5 Ridgecrest earthquake raised questions among some members of the public regarding the level to which the structures at SONGS are designed to withstand seismic events. The SONGS plant was designed to withstand considerable ground movement and the newer dry cask storage system is even more robust. In addition, the fault systems in the vicinity of San Onofre have been analyzed recently by the Scripps Institution of Oceanography who conducted the research in 2017.

The Ridgecrest quake had a 0.57g recorded peak ground acceleration (PGA) near the epicenter. The SONGS plant is designed to withstand PGA of 0.67g. The SONGS dry cask storage system (including canisters) is designed to withstand 1.5g PGA, more than double the nuclear plant. California building code requires buildings in the vicinity to withstand a PGA of 0.38g. The Scripps hazard analysis supports reduced seismic risk at San Onofre. The seismic design of spent fuel pools is consistent with new research and the ISFSI design provides greater margin given reduced seismic risk. The SONGS ISFSI seismic design is the highest in the U.S. For the Scripps hazard analysis and other peer reviewed seismic studies reference Seismic Safety at San Onofre:

<https://www.songscommunity.com/safety/seismic-safety>

SONGS Emergency Sirens are Retired from Service: On Monday July 1, 2019, 50 alert sirens were depowered in local communities; San Clemente, Dana Point, San Juan Capistrano, unincorporated Orange County, the Camp Pendleton Marine base and on state parks lands. The Nuclear Regulatory Commission (NRC) and Federal Emergency Management Agency (FEMA) determined sirens were unnecessary because accident scenarios at the defueled nuclear plant no longer exceed Environmental Protection Agency (EPA) protective action guidelines (PAG) that recommend evacuation or sheltering in place. There is no credible radiological release beyond the site boundary.

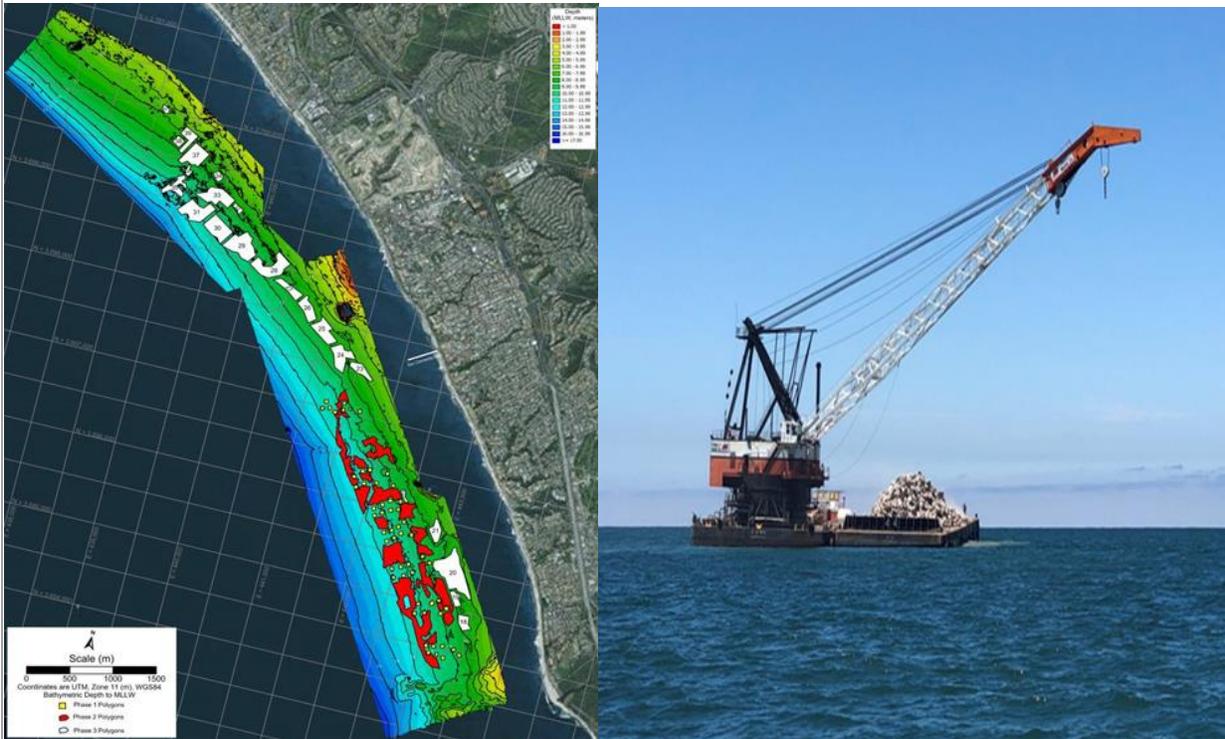
While the reactors at San Onofre were operating, the sirens would only have been activated during the two highest emergencies; Site and General Emergency. Neither can occur at SONGS now that reactors are retired. In the more than 39 years that the sirens were in service, they were never activated due to an emergency at San Onofre.

SONGS continues to maintain a robust emergency planning and preparedness program. For more on emergency planning during decommissioning visit the Emergency Planning website provided here. <https://www.songscommunity.com/safety/emergency-planning>

Wheeler North Reef Expansion Project: The Wheeler North Reef (SONGS Mitigation Reef) is a mitigation project required by the California Coastal Commission (CCC). The reef is intended as an offset for the use of ocean water for cooling during the operation of SONGS Units 2 and 3. After flowing through a closed-loop system, turbid seawater was released back into the ocean. A CCC analysis indicated that turbid water may screen the sun's rays and inhibit the growth of local kelp. The artificial reef, therefore, was designed to produce an offsetting habitat for marine life.

The Wheeler North Reef is located 0.6 miles offshore from the City of San Clemente. It is constructed of quarry rock from Santa Catalina Island. Phases 1 and 2 total approximately 174 acres and were constructed in 1999 and 2008, respectively. The costs for Phases 1 and 2 include \$20 million in construction costs and \$25 million in siting studies, final design and engineering, Final Environmental Impact Report and permitting.

The Expansion Reef, Phase 3, will be approximately 210 acres of quarry rock from Catalina Island and Ensenada, Mexico. The goal is to expand capacity for the fish biomass and kelp area to meet performance standards of the SONGS Coastal Development Permit. Construction will occur in two phases: first phase is July 19, 2019 through Sept. 2019; a second phase is June / July 2020 through Sept. 2020. The cost estimate for Phase 3 construction is \$20 million.



The map scale above shows phase 1 (yellow), phase 2 (red) and phase 3 (white) areas.

Interested in taking a tour of San Onofre, hosting a speaker about SONGS decommissioning, or subscribing for email updates? We are happy to give you a tour of our facility and explain the decommissioning process. Request a walking tour using this hyperlink:

<https://www.songscommunity.com/get-involved/request-a-walking-tour>

We also can send a speaker to your community meeting. Request a speaker using this hyperlink:

<https://www.songscommunity.com/get-involved/request-a-speaker>

You may subscribe to receive occasional updates regarding SONGS decommissioning and related news. Subscribe using this hyperlink <https://www.songscommunity.com/> and then scrolling to the bottom of the web page as illustrated below.

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