



City of Del Mar Staff Report



TO: Honorable Mayor and City Council Members

FROM: Deputy Mayor Ellie Haviland and Councilmember Worden

DATE: September 30, 2019

SUBJECT: Safe Handling and Storage of Nuclear Waste Generated at the Decommissioned San Onofre Nuclear Generating Station

REQUESTED ACTION/RECOMMENDATION:

Consider adoption of a resolution requesting the California State Legislature and Governor address concerns regarding the safe handling and storage of nuclear waste generated at the decommissioned San Onofre Nuclear Generating Station (SONGS).

DISCUSSION/ANALYSIS:

Southern California Edison (SCE) is the majority owner and decommissioning agent of SONGS. SCE permanently ceased power generation operations at SONGS on June 7, 2013. Their subsequent filing of a Certification of Permanent Cessation of Power Operations with the Nuclear Regulatory Commission (NRC) set the stage to begin preparations for decommissioning.

Decommissioning is a well-defined NRC process that involves transferring the used fuel into safe storage, followed by the removal and disposal of radioactive components and materials. Longer term, this process calls for reducing residual radioactivity to a level that supports termination of the NRC license. SONGS stores used uranium fuel on site using a combination of technologies; enclosed, steel-lined pools (spent fuel pools) and sealed stainless steel canisters that are housed in reinforced concrete structures (dry cask storage).

Now that SONGS is permanently retired, SCE is taking steps to transfer all of the used nuclear fuel into dry cask storage. This technology involves sealing used fuel in airtight steel (or in steel and concrete) containers or casks that are intended to provide both structural strength and shielding. Dry cask storage systems are designed to withstand various natural phenomena such as floods, tornados, seismic events, temperature extremes and lightning.

City Council Action:

Thirty-one canisters are currently entombed in the on-site storage vault and an additional 42 are awaiting transfer. The fuel will remain on site until the federal government puts in place a program to dispose of these materials.

By law, the U.S. Department of Energy is responsible for developing a disposal facility for the long-term management of used uranium fuel from SONGS and other U.S. nuclear power plants. However, the federal government does not currently have a viable plan to establish a permanent national repository for used nuclear fuel.

The proposed resolution calls for canister loading to be stopped and not commence until there is a loading and transfer system in place that meets a variety of specific safety requirements.

The resolution supports the onsite storage of nuclear waste in reinforced buildings, in better canisters, and that stored nuclear waste should be moved further inland and to higher ground. The resolution supports Congressional efforts to site and open a consent-based, permanent national repository for the disposal of the nation's nuclear waste and requests that the Legislature and the Governor of the State of California enact appropriate legislation that would address the concerns set forth in the resolution.

FISCAL IMPACT:

There is no fiscal impact related to the recommended action.

ATTACHMENTS:

Attachment A – Resolution Calling for the Safe Handling of Nuclear Waste at SONGS

RESOLUTION NO. 2019-___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF DEL MAR, CALIFORNIA, REQUESTING THE CALIFORNIA STATE LEGISLATURE AND CALIFORNIA GOVERNOR ADDRESS CONCERNS REGARDING THE SAFE HANDLING AND STORAGE OF NUCLEAR WASTE GENERATED AT THE DECOMMISSIONED SAN ONOFRE NUCLEAR GENERATING STATION

WHEREAS, the City of Del Mar is located within a 50-mile radius of the shuttered San Onofre Nuclear Generating Station; and

WHEREAS, residents of the City of Del Mar are among the 8.5 million people living within a 50-mile emergency planning zone as defined by the U.S. Nuclear Regulatory Commission (NRC); and

WHEREAS, at San Onofre, in total, 3.6 million pounds of high-level radioactive waste is being transferred into on-site storage located within a few hundred feet of the ocean; and

WHEREAS, the storage period is indefinite; and

WHEREAS, the Nuclear Regulatory Commission (NRC) is investigating utility safety procedures and license compliance following a "near-miss" drop incident that occurred in August 2018 in which a fully loaded, 54-ton spent fuel storage canister came within a quarter-inch of falling 18 feet into a below grade storage vault; and

WHEREAS, 31 canisters are currently entombed in the storage vault and an additional 42 are awaiting transfer; and

WHEREAS, when loaded into on-site storage, thin-walled waste canisters are subject to gouging, potentially leading to corrosion, cracking and the possible release of radiation into the environment; and

WHEREAS, the storage facility is vulnerable to damage from seismic activity, landslides, tsunamis and sea-level rise, which could submerge and potentially inundate the vault with corrosive sea water; and

WHEREAS, a breach of San Onofre's nuclear storage facilities could disable the busiest transportation corridor on the West Coast, destroy real estate, cripple military readiness at Marine Corps Base Camp Pendleton and prompt damages which, according to economic modeling, could exceed \$13.4 trillion over 50 years; and

WHEREAS, radiation exposure poses potentially lethal health effects to life on Earth.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Del Mar, California, as follows:

1. That the above recitations are true and correct.

2. That the City Council supports the following:
 - a. That canister loading should be stopped and not commence until there is a loading and transfer system in place that meets the safety requirements listed below.
 - i. That the utility regularly inspect and monitor canisters, cease using thin walled canisters, and replace any that show evidence of material failure or radiation leaks;
 - ii. That independent, real-time radiation monitoring data of San Onofre's nuclear waste canisters and containment systems be made available online to the public;
 - iii. That the utility develop procedures for on-site canister repair and repackaging of spent nuclear fuel in the event of material failure or malfeasance; and
 - iv. That a formal, independent audit of Southern California Edison's decommissioning fund, procedures and nuclear waste storage program be conducted.
 - b. That on-site containment be ensured via storing nuclear waste in reinforced buildings, providing additional environmental and security protection.
 - c. That stored nuclear waste be moved further inland and to higher ground away from coastal and flood risks.
 - d. Congressional efforts to site and open a consent-based, permanent national repository for the disposal of the nation's nuclear waste.
 - e. That the City Council requests that the Legislature and the Governor of the State of California enact appropriate legislation that would address the concerns set forth in this resolution.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Del Mar, California, at the Regular Meeting held this 30th day of September 2019.

Dave Druker, Mayor
City of Del Mar

APPROVED AS TO FORM:

Leslie E. Devaney, City Attorney
City of Del Mar

ATTEST AND CERTIFICATION:

STATE OF CALIFORNIA
COUNTY OF SAN DIEGO
CITY OF DEL MAR

I, ASHLEY JONES, Administrative Services Director/City Clerk of the City of Del Mar, California, DO HEREBY CERTIFY, that the foregoing is a true and correct copy of Resolution No. 2019-_____, adopted by the City Council of the City of Del Mar, California, at a Regular Meeting held the 30th day of September 2019, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Ashley Jones, Administrative Services
Director/City Clerk
City of Del Mar