San Onofre Nuclear Generating Station
Independent Spent Nuclear Fuel Storage Installation

Report period: February 2025

This report provides radiation data at the San Onofre Nuclear Generating Station (SONGS) Independent Spent Fuel Storage Installation (ISFSI). The information was gathered according to an agreement between SONGS and the California Department of Public Health Radiologic Health Branch (RHB).

Dry Storage at SONGS

The first used fuel assemblies were transferred from wet (pool) storage to the dry cask storage units in the TN-NUHOMS system in October 2003. In total, 1,187 fuel assemblies are stored in the TN-NUHOMS system in 50 canisters. The Holtec HI-STORM UMAX dry storage system was constructed between April 2016 and the end of 2017, with the transferring of fuel assemblies taking place from January 2018 to August 2020. In total, 2,668 fuel assemblies are stored in the HI-STORM UMAX system in 73 canisters.

The first greater-than-class-c (GTCC) waste canister was transferred to the TN-NUHOMS dry cask storage system in September 2004. As part of deocomissioining and distmantlement of Units 2 and 3 Fuel Handling Buildings and Containment Buildings, additional GTCC was trasnfered to the TN-NUHOMS ISFSI from April 2022 to May 2024. In total, the TN-NUHOMS system contains 13 canisters of GTCC waste (one canisfer form Unit 1 and 12 from Units 2 and 3).

Radiation Monitoring

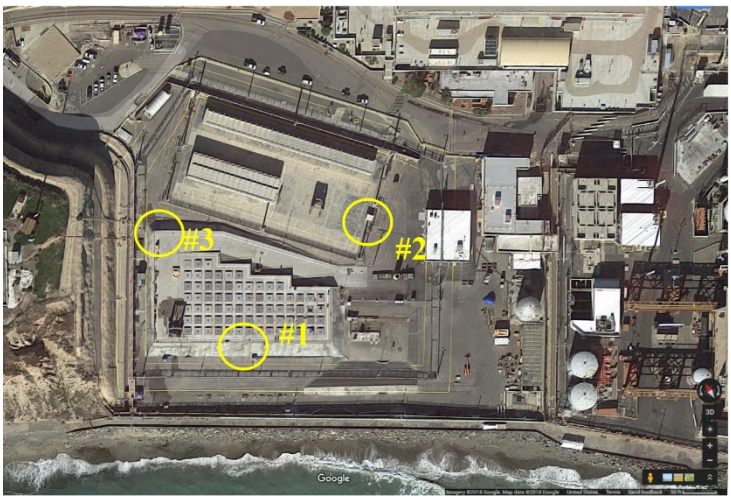
Radiation level measurements around the ISFSI were initiated before fuel was placed in the NUHOMS system to determine background levels. Radiation measurements using sensitive Thermoluminescent Dosimeters (TLDs) have been made at locations around the ISFSI since then and reported to the Nuclear Regulatory Commission in SONGS Annual Radiological Environmental Operating Reports. These reports (through 2015) are available at U.S. NRC Radioactive Effluent and Environmental Reports, or in the NRC public Document System (ADAMS). Reports beginning in 2016 are available at SONGS Environmental Monitoring.

Additional TLDs were placed around the Holtec ISFSI in 2016 as it was constructed and before operation and have been in place since the first fuel canister was placed in 2018. Gamma-sensitive radiation monitors were added in 2019 at three locations in the ISFSI area and one additional monitor in a control location. The data are summarized in tables with daily averages, maxima, and minima. Those data tables are attached, one for each of the four locations.

More information on radiation monitoring is available at SONGS Dry Fuel Storage Radiation Monitoring.

Locations

There are three radiation monitors in the ISFSI at locations depicted on the image below:



A fourth radiation monitor, at a control location, is located at the edge of the parking lot north of the ISFSI such that it measures background radiation in an unaffected reference area similar to the ISFSI.

Low-Level Waste Shipments Offsite as Part of SONGS Dismantlement

SONGS is in the process of dismantlement with rail shipments of low-level radioactive waste periodically leaving the site for disposal.

There were no offsite waste shipments that impacted the radiation measurements by the ISFSI Radiation Monitoring System during February 2025.

Other

There were no other relevant activities (i.e. temporary power outage, radiation monitor maintenance, etc.) during February 2025.

Table 1: Daily Results for February 2025 (in millirem per hour) for Location #1

Day	Average Dose Rate	Maximum Dose Rate	Minimum Dose Rate
1-Feb	0.020	0.026	0.014
2-Feb	0.020	0.027	0.015
3-Feb	0.020	0.027	0.014
4-Feb	0.019	0.026	0.014
5-Feb	0.020	0.029	0.014
6-Feb	0.019	0.025	0.015
7-Feb	0.019	0.027	0.014
8-Feb	0.019	0.026	0.014
9-Feb	0.019	0.026	0.014
10-Feb	0.019	0.025	0.015
11-Feb	0.019	0.025	0.014
12-Feb	0.019	0.025	0.014
13-Feb	0.018	0.025	0.014
14-Feb	0.018	0.024	0.013
15-Feb	0.019	0.024	0.015
16-Feb	0.019	0.025	0.014
17-Feb	0.019	0.024	0.014
18-Feb	0.019	0.024	0.015
19-Feb	0.018	0.027	0.014
20-Feb	0.019	0.026	0.015
21-Feb	0.019	0.025	0.015
22-Feb	0.019	0.024	0.014
23-Feb	0.019	0.025	0.013
24-Feb	0.019	0.025	0.015
25-Feb	0.019	0.025	0.014
26-Feb	0.019	0.025	0.014
27-Feb	0.019	0.026	0.014
28-Feb	0.019	0.025	0.014

Table 2: Daily Results for February 2025 (in millirem per hour) for Location #2

Day	Average Dose Rate	Maximum Dose Rate	Minimum Dose Rate
1-Feb	0.011	0.016	0.008
2-Feb	0.011	0.016	0.008
3-Feb	0.011	0.016	0.007
4-Feb	0.011	0.017	0.007
5-Feb	0.013	0.018	0.010
6-Feb	0.012	0.017	0.008
7-Feb	0.013	0.018	0.009
8-Feb	0.013	0.018	0.009
9-Feb	0.013	0.017	0.009
10-Feb	0.012	0.018	0.006
11-Feb	0.009	0.013	0.006
12-Feb	0.009	0.014	0.006
13-Feb	0.009	0.012	0.006
14-Feb	0.009	0.013	0.004
15-Feb	0.009	0.012	0.007
16-Feb	0.009	0.013	0.006
17-Feb	0.009	0.013	0.006
18-Feb	0.009	0.014	0.006
19-Feb	0.009	0.013	0.006
20-Feb	0.009	0.015	0.006
21-Feb	0.009	0.014	0.006
22-Feb	0.009	0.013	0.006
23-Feb	0.009	0.014	0.006
24-Feb	0.009	0.013	0.006
25-Feb	0.009	0.013	0.006
26-Feb	0.009	0.012	0.007
27-Feb	0.009	0.012	0.006
28-Feb	0.009	0.013	0.007

Table 3: Daily Results for February 2025 (in millirem per hour) for Location #3

Day	Average Dose Rate	Maximum Dose Rate	Minimum Dose Rate
1-Feb	0.013	0.018	0.009
2-Feb	0.013	0.018	0.010
3-Feb	0.014	0.018	0.009
4-Feb	0.013	0.018	0.009
5-Feb	0.013	0.019	0.009
6-Feb	0.013	0.018	0.009
7-Feb	0.013	0.018	0.010
8-Feb	0.013	0.018	0.010
9-Feb	0.013	0.019	0.009
10-Feb	0.013	0.021	0.009
11-Feb	0.013	0.018	0.008
12-Feb	0.013	0.017	0.010
13-Feb	0.013	0.018	0.009
14-Feb	0.013	0.018	0.009
15-Feb	0.013	0.018	0.009
16-Feb	0.013	0.018	0.009
17-Feb	0.013	0.017	0.009
18-Feb	0.013	0.017	0.009
19-Feb	0.013	0.017	0.009
20-Feb	0.013	0.017	0.009
21-Feb	0.012	0.017	0.009
22-Feb	0.013	0.018	0.009
23-Feb	0.013	0.019	0.009
24-Feb	0.013	0.017	0.010
25-Feb	0.013	0.017	0.008
26-Feb	0.013	0.018	0.010
27-Feb	0.013	0.018	0.009
28-Feb	0.013	0.018	0.009

Table 4: Daily Results for February 2025 (in millirem per hour) for Location #4 (Control)

Day	Average Dose Rate	Maximum Dose Rate	Minimum Dose Rate
1-Feb	0.007	0.010	0.005
2-Feb	0.008	0.010	0.005
3-Feb	0.008	0.010	0.005
4-Feb	0.007	0.010	0.004
5-Feb	0.007	0.011	0.004
6-Feb	0.007	0.010	0.005
7-Feb	0.007	0.010	0.005
8-Feb	0.007	0.011	0.004
9-Feb	0.007	0.010	0.005
10-Feb	0.007	0.010	0.005
11-Feb	0.007	0.011	0.005
12-Feb	0.007	0.011	0.004
13-Feb	0.007	0.011	0.004
14-Feb	0.007	0.010	0.004
15-Feb	0.007	0.010	0.004
16-Feb	0.007	0.010	0.005
17-Feb	0.007	0.010	0.005
18-Feb	0.007	0.010	0.005
19-Feb	0.007	0.010	0.004
20-Feb	0.007	0.010	0.004
21-Feb	0.007	0.010	0.004
22-Feb	0.007	0.009	0.005
23-Feb	0.007	0.009	0.004
24-Feb	0.007	0.010	0.005
25-Feb	0.007	0.010	0.005
26-Feb	0.007	0.011	0.005
27-Feb	0.007	0.010	0.005
28-Feb	0.007	0.010	0.005