

SONGS Decommissioning Lessons Learned

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SONGS Decommissioning – Lessons Learned

- Topics
 - Public Engagement
 - Pressurizer Shipments
 - Groundwater Tritium

Public Engagement

- Community Engagement Panel (CEP)
 - Created in 2014 (one year following shutdown)
 - Varied panel membership includes elected officials, environmental groups, union representative and others
 - Quarterly meetings – different focus each meeting
 - Variable attendance over time
 - Early broad curiosity in decommissioning and regulatory framework
 - Continued interest in issues related to storage, transport and removal of fuel from the site
- SONGS website – Songscommunity.com
 - Information regarding decommissioning status, storage of spent fuel, strategic plans for removal of fuel, and more

Public Engagement

- Speaking Engagements
- Tours - Significant public interest in SONGS tour program
- 2024
 - 81 speeches and tours
 - 1329 guests

Groups	Visitors	Number of Events/Tours
Camp Pendleton	64	5
Elected office/Government official	16	4
first Responder/Fire Dept or Law Enforcement/Medical	51	4
High School/University - Professors and Administrators	53	4
High School/University - students	119	4
Industry/Utility	182	22
Media	5	3
Professional Association/Club (includes two ACC-OC tours, with 53 participants total)	188	9
Saturday Public Tours (includes 30 Boy Scouts)	411	16
Tribal	2	1
Offsite Speaking Engagements	238	9
Grand Total	1329	81

Public Engagement – Lessons Learned

- The value of person-to-person interactions
- Leverage representatives (employees/3rd party speakers) with a depth of knowledge
- Community Engagement Panel is a big undertaking
 - Build a diverse and independent panel
 - Arranging for third-party speakers
 - Securing venues
 - Technology issues

Unit 2 Pressurizer (PZR) Leak During Transit to Clive Utah for Disposal

- On 6/30/24, while the Unit 2 and 3 PZR were parked in a rail yard located in San Bernardino, a leak from the Unit 2 PZR manway was identified by a rail worker
- Conservatively estimated up to 3 liters may have leaked)
- A SONGS Radiation Protection Team was promptly mobilized to San Bernardino to perform radiological surveys, cleanup, and stop the leak
- No leakage was identified from the Unit 3 PZR
- On 7/4/24 both PZR were returned to the SONGS site for cause investigation and corrective actions to prevent reoccurrence

Unit 2 & 3 PZR prior to departing SONGS on 6/27/24 and 6/29/24, respectively

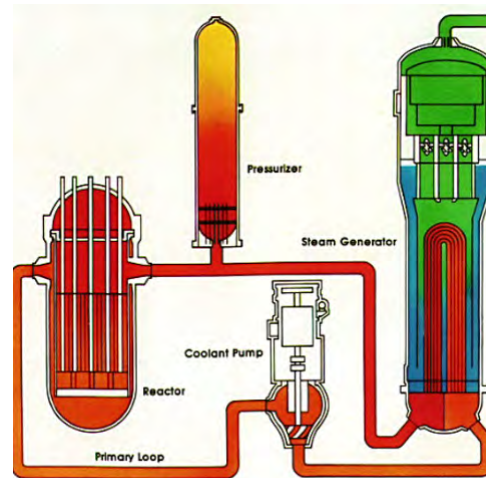


Unit 2 PZR Leak Radiological Surveys

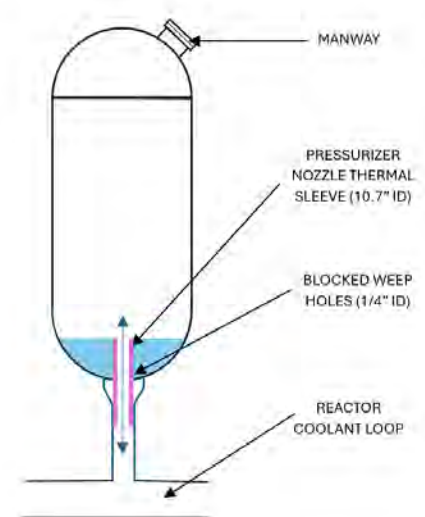
- Results of Radiological Surveys
 - Leak limited to top of rail car (no water escaped the rail car)
 - Surveys found no readings above background radiation levels on or around the rail car
 - No risk to public health
 - Water was reactor coolant that remained in the U2 PZR after the primary system was drained
- Reported issue in accordance with 10 CFR 50.72 based on interaction with a public agency (California Office of Emergency Services)
- PZR was manifested as sealed and dry packages per NRC and DOT regulations
- NRC issued SCE two Severity Level IV (lowest level) Non-Cited Violations
 - One for a package that was not leak tight, and another because the package should have been dry but contained liquid

Unit 2 PZR Leak – Investigation Findings

- Unit 2 PZR thermal sleeve weep holes unexpectedly blocked leading to retention of 190 gallons¹ of water after the RCS system was drained
- Unit 3 PZR was dry (weep holes not blocked)
- Workers assumed that the PZR were drained prior to waste packaging based on configuration of the RCS system
- Workers assumed the PZR manway gaskets remained in place after SONGS entered decommissioning in 2013
- Higher ambient temperature in San Bernardino (as compared to the SONGS coastal region) increased the internal pressure of Unit 2 PZR, causing water to leak though the manway studs



PZR Installed Configuration



U2 PZR Internal Configuration

Note 1: 190 gallons is approximately 1% of the 16,500-gallon capacity of the PZR.

Unit 2 PZR Leak – Lesson Learned

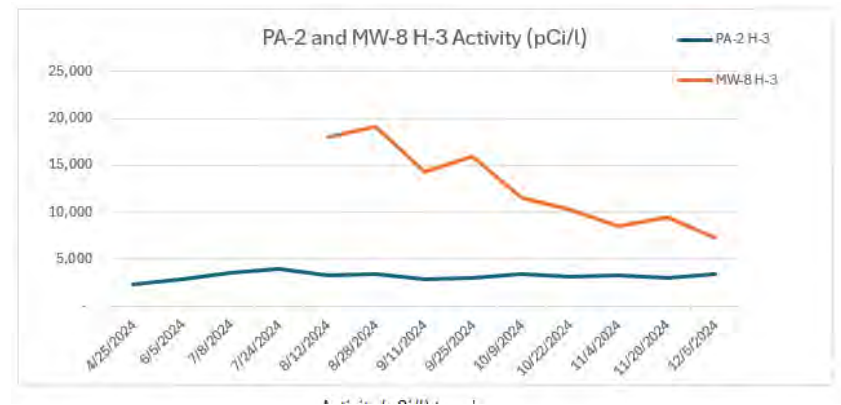
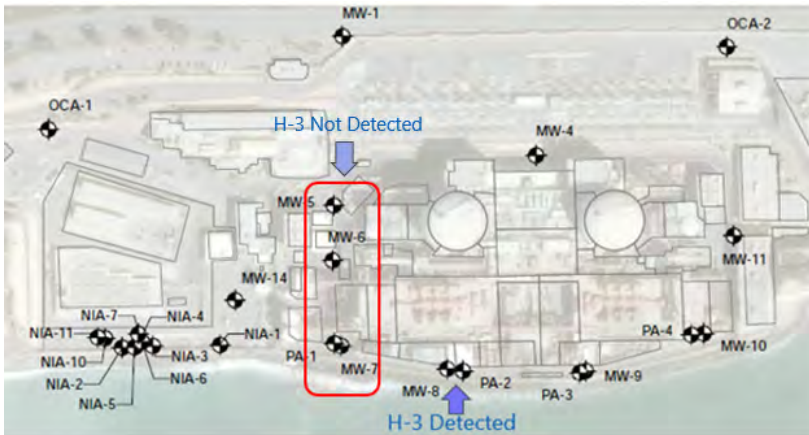
- Ensure that critical assumptions are verified

Unit 2 Groundwater Tritium (H-3)

- Tritium is produced during reactor operations and is a known issue for decommissioning plants
 - Found at SONGS U1 during decommissioning and remediated
- During routine quarterly sampling, H-3 was detected in groundwater monitoring well in April 2024 (sample results received in June 2024)
- H-3 not detected in other monitoring wells
- Sampling for H-3 of a nearby non-radiological well in August '24 found even higher concentrations of H-3
- Monitoring trend in H-3 by sampling PA-2 and MW-8 every other week
- NRC notified in August '24
- SCE made NEI 07-07 GPI voluntary communication to federal, state, and local agencies and stakeholders in September '24
- SCE has engaged a hydrogeologist to support thorough investigation of H-3 plume and to identify the source
- Groundwater beneath SONGS is not a source of drinking water

Unit 2 Groundwater Tritium (H-3) Investigation

- Sampling on 12/5/24 of monitoring well MW-8 indicates a downward trend in H-3 concentration while PA-2 H-3 concentration remains stable
- Sampling of three non-radiological monitoring wells located north of Unit 2 did not detect H-3
- Installation of six new wells in vicinity of PA-2 and MW-8 to determine extent of H-3 plume started in January of 2025
- New wells sampled and analyzed this month



Unit 2 Groundwater Tritium (H-3) – Lesson Learned

- Proactive reporting of even low-level issues and communication with the public promotes confidence in the decommissioning project.

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Questions