



Decommissioning **San Onofre** Nuclear Generating Station

Follow-up to Questions from Communities

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San Onofre
Nuclear Generating Station

Follow-Up Topics

Today

- Heat removal from canisters
- Defense-in-depth evergreen slide deck
- Radiation monitoring and reporting
- Discharges via ocean conduits
- AREVA/Holtec warranties
- Extreme events workshop planning

Future

- Notes from Holtec factory visit
- Interim Storage Partners (CIS)
- NRC conclusions on spent fuel
- Links to follow-up topics on SONGScommunity.com



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Follow-Up Topic
TEMPERATURE MONITORING

Temperature Monitoring and Heat Removal

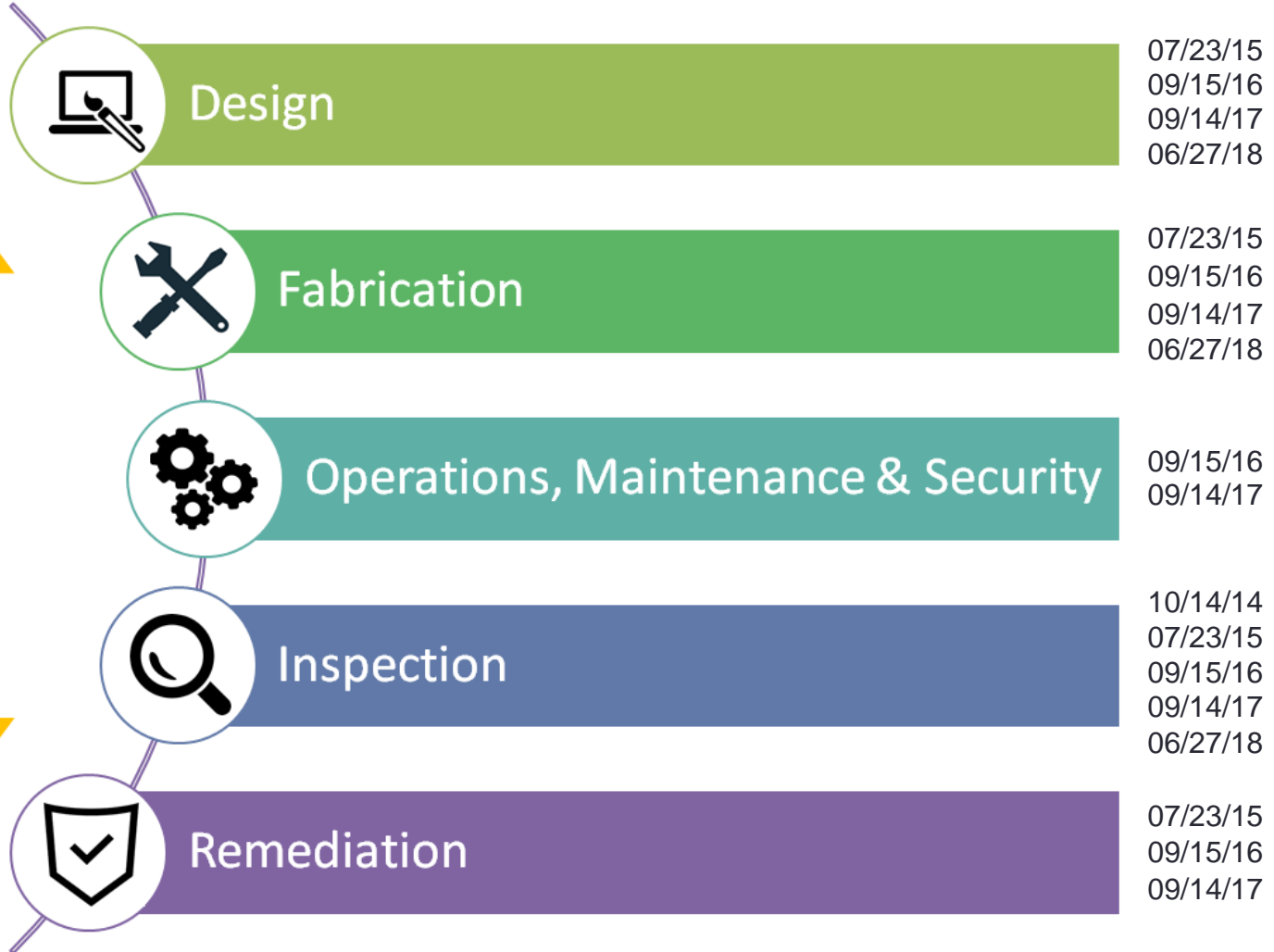
- Monitoring outlet vent temperature and ensuring ventilation openings are free of obstruction is sufficient
 - Industry has over 30 years of experience monitoring canister performance
 - SONGS has 15 years of experience monitoring AREVA ISFSI
- Direct shell temperature monitoring would not provide a valid indication of leak detection



Safety | Stewardship | Engagement
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Follow-Up Topic
DEFENSE-IN-DEPTH

D-I-D Evergreen Slide Deck Now on Website





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RADIATION MONITORING AND REPORTING

Current ISFSI Monitoring

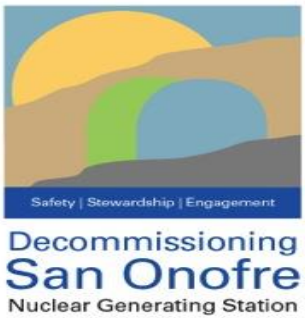


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- Continuous security monitoring
- Daily visual inspections of ISFSI and air vents
- Currently, 24/7 radiological monitoring of ISFSI
- Surveys are performed throughout fuel transfer process by trained personnel
- Temperature monitoring
- Bi-weekly closure lid radiological survey for each loaded module
- Quarterly radiological surveys performed by trained personnel
- Thermal luminescent dosimeters surround ISFSI with data pulled monthly
- Additional radiological surveys, as needed

Current Radiological Reports

- Annual Radioactive Effluent Release Report
 - Covers liquid and gaseous effluent releases
- Annual Radiological Environmental Operating Report
 - Covers impact on environment by sampling air, water, soil, kelp, marine life
- Filed annually with NRC
 - Available on NRC and SONGS websites
 - <https://www.songscommunity.com/stewardship/responsible-stewardship>
 - Not written for a general audience





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Additional Monitoring & Reporting Under Consideration

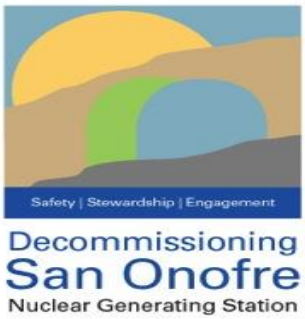
- Radiation monitoring
 - Considering 24/7 monitoring of ISFSI area as long as fuel is on site
 - If done, equipment would be per NRC specifications with periodic calibration
 - Potential real-time feed of data to offsite agency with radiological expertise
- Reporting
 - Near term – SCE will simplify NRC reports for general audience
 - Mid-term – SCE considering working with third party that could
 - Receive real-time data from SONGS
 - Produce regular data reports
 - Notify the public in the event of a release beyond regulatory limits



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Discharges Via Ocean Conduits

- Liquid releases conducted in compliance with regulations, license and permit requirements
 - Federal:
 - Clean Water Act – federal law governing water pollution
 - NRC - Offsite Dose Calculation Manual (ODCM)
 - Environmental Protection Agency (EPA)
 - State: The State Water Board
 - Local: San Diego Region - California Regional Water Quality Control Board
- All waste water monitored for radioactivity to ensure compliance with applicable limits; radioactivity evaluated per NRC and EPA
- Radioactive releases now at ~1% of levels during operation
- Dose to hypothetical member of public remains ~0.003 millirem/year
 - 100,000 times less than national avg. of ~300 millirem/year from natural sources



ISFSI Warranties

- Holtec HI-STORM UMAX System
 - 30-year warranty against defects
 - Includes 5-year extension due to peening canister welds
 - Warranty period begins at end of fuel transfer (mid-2019)
- AREVA NUHOMS (Transnuclear West) System
 - 2-year warranty against defects
 - Canisters manufactured in early 2000s