Decommissioning Principles

Safety
Stewardship
Engagement

For more information on SONGS please visit www.SONGScommunity.com
Decommissioning Plan

![Diagram of Decommissioning Plan]

- **20 Year Plan**
  - 2014:
    - 1st Quarter: System Retirement
    - 2nd Quarter: Implement Cold and Dark
    - 3rd Quarter: Decommissioning Power Ring
    - 4th Quarter: Spent Fuel Pool Islanding
  - 2015:
    - 1st Quarter: PERMANENTLY DEFUELED TECHNICAL SPECIFICATIONS
    - 2nd Quarter: E-Plan Submittal
    - 3rd Quarter: Engineering and Procurement
    - 4th Quarter: ISFSI Permit Amendment
  - 2016:
    - 1st Quarter: FMP, DCE, P5DAR Submittal
    - 2nd Quarter: Historical Site Assessment & Site Characterization
    - 3rd Quarter: Decommissioning General Contractor
    - 4th Quarter: DGC Award
  - 2017:
    - 1st Quarter: SPIF, SAFSTOR WET
    - 2nd Quarter: START DECONTAMINATION & DISMANTLEMENT (D&D) 10 years
    - 3rd Quarter: SAFSTOR WET
    - 4th Quarter: DGC Startup Activities
  - 2018:
    - 1st Quarter: MAJOR D&D COMPLETE
    - 2nd Quarter: COMPLETION OF REMAINING SITE RESTORATION WORK
    - 3rd Quarter: LICENCE TERMINATION PLAN
    - 4th Quarter: FINAL SITE RESTORATION
  - 2019:
    - 1st Quarter: Any remaining State requirements for unrestricted land use
  - 2020:
    - 1st Quarter: END OF DECOMMISSIONING (except ISFSI pad)

**Key Milestones**:
- E-Plan Submittal
- System Retirement
- Implement Cold and Dark
- Decommissioning Power Ring
- Spent Fuel Pool Islanding
- PERMANENTLY DEFUELED TECHNICAL SPECIFICATIONS
- Engineering and procurement
- ISFSI Permit Amendment
- FMP, DCE, P5DAR Submittal
- Historical Site Assessment & Site Characterization
- Decommissioning General Contractor
- DGC Award
- SPIF, SAFSTOR WET
- START DECONTAMINATION & DISMANTLEMENT (D&D) 10 years
- SAFSTOR WET
- DGC Startup Activities
- MAJOR D&D COMPLETE
- COMPLETION OF REMAINING SITE RESTORATION WORK
- LICENCE TERMINATION PLAN
- FINAL SITE RESTORATION
- END OF DECOMMISSIONING (except ISFSI pad)
Decommissioning Key Dates

- System retirement complete 3Q2016
- Plant in a Cold & Dark (C&D) condition
- Used Fuel offloaded to dry cask storage mid-2019
- CEQA review process and permitting complete 4Q2017
- Decommissioning & Dismantlement (D&D) begins 1Q2018
- Initial NRC license termination 2029
- Site restoration complete 2032
Used Fuel Strategy

• Safely manage and store San Onofre’s used nuclear fuel until it is removed from site

• Promptly offload fuel from spent fuel pools to passive dry cask storage

• Recover used fuel storage costs from DOE

• Support all safe and reasonable options to remove used nuclear fuel from San Onofre site
Independent Spent Fuel Storage Installation
Fuel Readiness for Transportation

- Transfer estimated at 10 years from start to finish
- Some fuel qualified for transport now
- Other fuel qualifies over time

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**Preliminary Timing**

- 73 CANISTERS

Decommissioning San Onofre Nuclear Generating Station  Safety | Stewardship | Engagement
Independent Spent Fuel Storage Installation Cost Recovery

• Used fuel management costs included in decommissioning cost estimate

• Decommissioning trust fully funded, including used fuel management costs

• Used fuel management costs recovered from DOE
  – June 2010 $142 million awarded for 1998-2005 costs
  – April 2016 $162 million awarded for 2006-2013 costs
  – Net proceeds refunded to customers
BACKUP SLIDES
Used Fuel Storage

SONGS FUEL ASSEMBLY COUNT

Unit 2 SFP
1318 Fuel Assemblies
(570 High Burn Up)

Unit 3 SFP
1350 Fuel Assemblies
(545 High Burn Up)

Existing ISFSI Pad
U1: 395 Assys
17 Canisters
+1 GTCC

U2: 408 Assys
(1 High Burn Up)
17 Canisters

U3: 384 Assys
(7 High Burn Up)
17 Canisters

GE Morris IL
270 Fuel Assemblies

U2 & U3 to
Off-Load to Dry
(1318 + 1350)
2668 Fuel Assemblies

ISFSI Expansion Pad
U2 – Need 36 Canisters

U3 – Need 37 Canisters

U2 & U3 – Need 410 Canisters for GTCC

U1 & U2 & U3
To DOE
3855 Fuel Assemblies

U1 TO DOE
270 Fuel Assemblies

2668 Fuel Assemblies

2668 Fuel Assemblies
Spent Fuel Shipment Readiness

- **Unit 1 - Area 24PT1**: 17 DSC's On the Pad
  - 2 DSC's U2&3 <2015

- **Unit 2&3 - Area 24PT4**: 33 DSC's On the Pad
  - 14 DSC's U2&3 ~2015
  - 1 DSC U2&3 2016
  - 6 DSC's U2&3 2017
  - 6 DSC's U2&3 2018
  - 6 DSC's U2&3 2019

- **Unit 2&3 - Holtec MPC37**: 73 DSC's Required in Wet Storage
  - 73 DSC's U2&3 Holtec 2020

- **Unit**: 5 DSC's U1 2023
  - 9 DSC's U1 2030
Decommissioning Cost Estimate Breakdown

Total Cost = $4.411B (2014 $’s, 100% Level)

Description of Cost Categories:
1. License Termination: Decommissioning planning through reactor and other plant system D&D
2. Used Fuel Management: Transfer of used fuel into and management of dry cask storage, and ultimate demolition of the ISFSI
3. Site Restoration Costs: Clean building demolition and site grading