

United States Nuclear Regulatory Commission

Protecting People and the Environment

NRC PUBLIC MEETING

DIABLO CANYON NUCLEAR POWER PLANT

POST-SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT

JULY 21, 2022

OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

MEETING AGENDA

- Meeting Purpose: Obtain Public Comments on the Pacific Gas and Electric (PG&E) Diablo Canyon Post Shutdown Decommissioning Activities Report (PSDAR)
- Introductions and Meeting Procedures
- NRC Presentation:
 - Decommissioning Process and Experience
 - Regulatory Oversight and Inspection Program
- PG&E Presentation on PSDAR Content
- NRC Presentation on PSDAR Review and Public Comment Process
- Ground Rules for Public Comments
- Elected, State and Local Officials, Native American Tribes
- Public Comments
- Close Meeting by 9:00 p.m.

NCLEAR REGL



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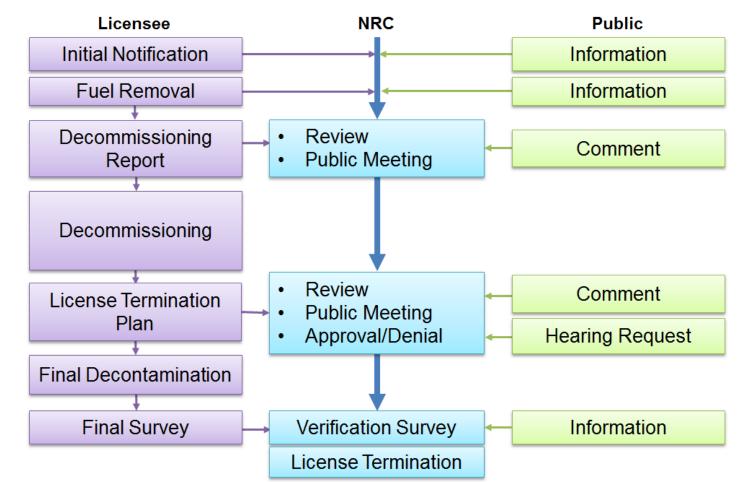
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DECOMMISSIONING PROGRAM

- Appropriate statutory authority
- Comprehensive regulations include:
 - radiological cleanup criteria
 - public involvement opportunities
 - financial assurance requirements
- Effective decommissioning guidance
- Appropriate levels of oversight throughout decommissioning

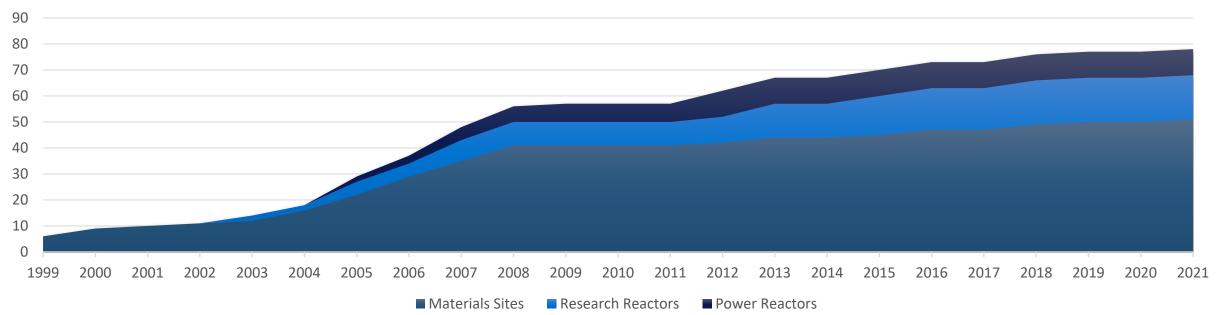


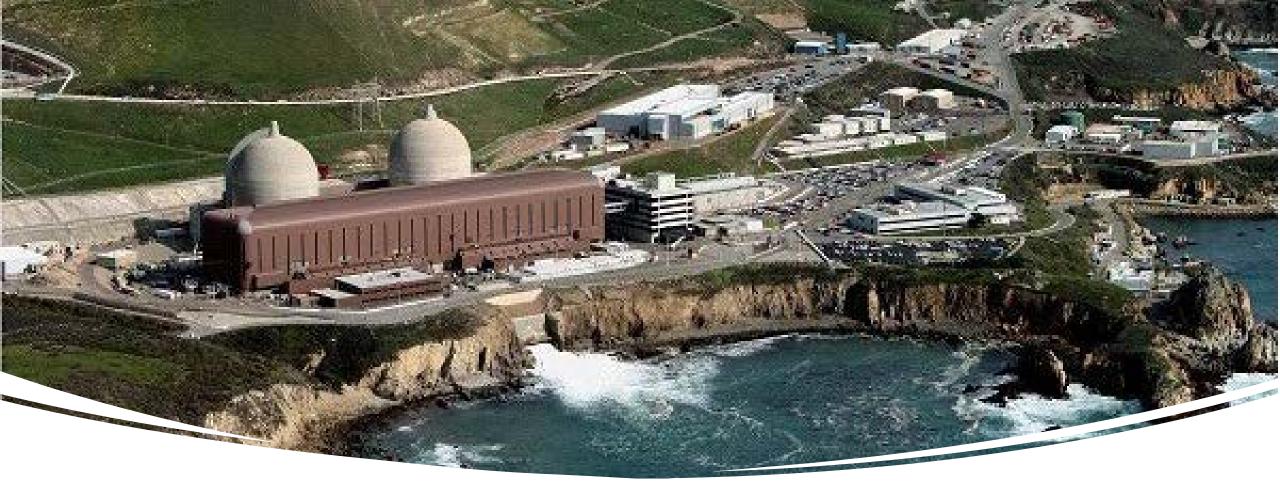


DECOMMISSIONING EXPERIENCE

- The NRC's current decommissioning regulations are performance-based and risk-informed
- Extensive decommissioning experience
- A total of eleven power reactor sites have completed decommissioning and had the reactor licenses terminated for unrestricted use outside of the dry fuel storage facility

Completion of Decommissioning by Facility Type (1998-2021)



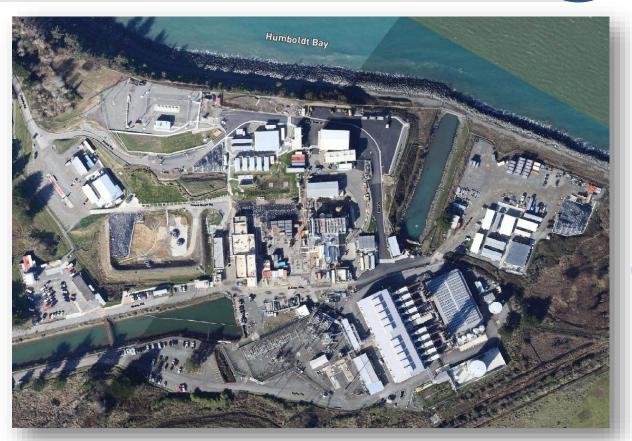


POWER REACTORS IN DECOMMISSIONING

- 17 reactor units in active decommissioning (DECON)
- 9 reactor units in delayed dismantlement (SAFSTOR)
- Diablo Canyon Nuclear Power Plant, Units 1 and 2, announced plans to shutdown in 2024 and 2025

COMPLETED REACTOR DECOMMISSIONING PROJECTS IN CALIFORNIA

HUMBOLDT BAY (License Terminated in November 2021)

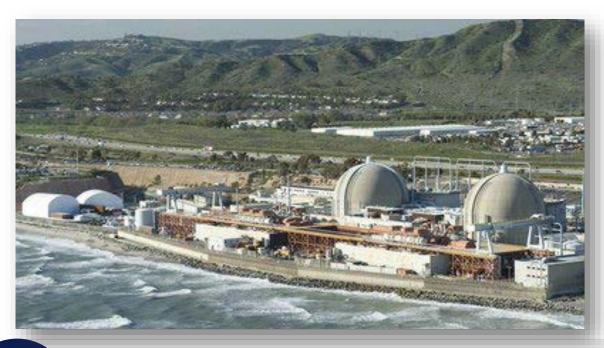






RANCHO SECO (License Terminated in 2009)

CALIFORNIA POWER REACTOR DECOMMISSIONING IN PROCESS





GE VALLECITOS (Shutdown in 1965 – SAFSTOR)





SAN ONOFRE

(Shutdown in 2013 – DECON)

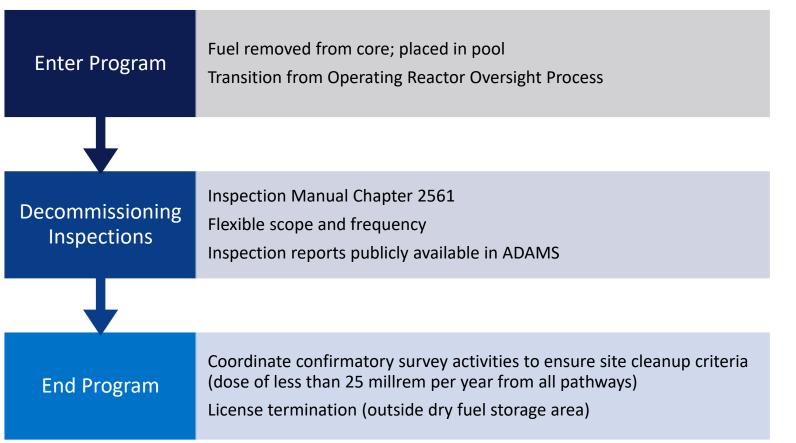
OBJECTIVES OF THE DECOMMISSIONING INSPECTION PROGRAM

- Oversight and monitoring conducted over the entire period of the decommissioning process
- Objectively verify the safe conduct of decommissioning activities, including dismantlement and decontamination
- Verify adequacy of licensee procedures and controls
- Ensure safety problems and violations are promptly identified and corrected, and effective actions are taken to prevent recurrence
- Examine and address trends in safety performance





REACTOR DECOMMISSIONING INSPECTIONS

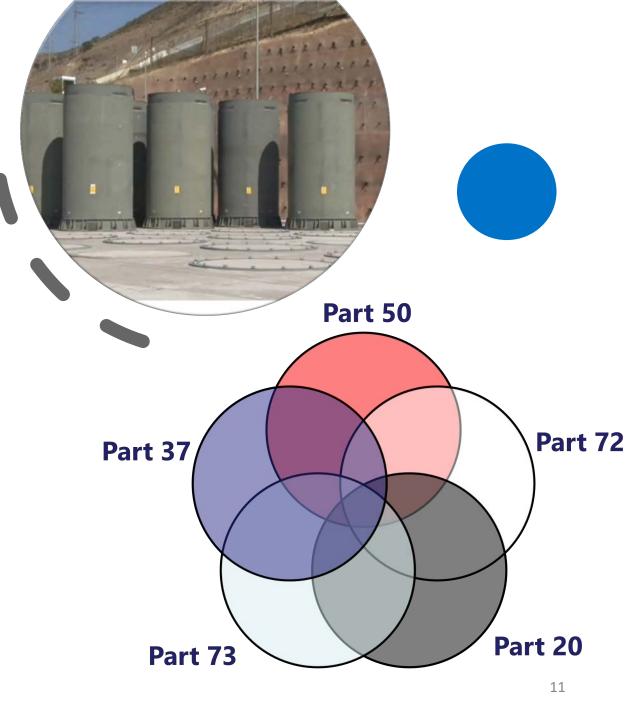


SPENT FUEL STORAGE FACILITY INSPECTIONS

IMC 2690 – Inspection Program for Dry Storage of Spent Reactor Fuel at Independent Spent Fuel Storage Installations (ISFSI)

NRC inspections performed during:

- onsite fabrication and construction of the ISFSI
- preoperational testing (i.e., dry runs)
- initial fuel loading campaign
- routine ISFSI inspections
- any significant evolutions involving the ISFSI



PSDAR REQUIREMENTS

The PSDAR should contain:

- Description of planned decommissioning activities
- High-level schedule considerations
- Site-specific cost estimate for decommissioning
- Discussion of potential environmental impacts of decommissioning
- May contain the irradiated fuel management plan as part of the PSDAR

POST-SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT DIABLO CANYON POWER PLANT Unit 1 and Unit 2

December 2019 Pacific Gas and Electric







CONTENTS OF THE DIABLO CANYON PSDAR

BRANDY LOPEZ, PACIFIC GAS & ELECTRIC

PSDAR REVIEW PROCESS



PUBLIC OUTREACH

The NRC notices receipt of the PSDAR in the *Federal Register* and requests public comments

The NRC also schedules a public meeting in the vicinity of the plant to discuss the PSDAR and solicit public comments

	October 2013 Revision 1 Technical Lead James Depleted
REGULATORY GUIDE 1.184 (Draft was issued as DG-1277. deted February 2012) DECOMMISSIONING OF NUCLEAR POWER R	EACTORS
A. INTRODUCTION More and the second	U.S. NUCLEAR REGULATORY COMMISSION OFFICE OF NUCLEAR REGULATORY RESEARCH REGULATORY GUIDE REGULATORY GUIDE 1.185 (Draft was issued as DG-1272, dated December 2012)
 10 CTR 50.4 provides the requirements for written commun 10 CTR 50.5 provides the conditions for a license. 10 CTR 50.5 provides the requirements for reporting and a decommissioning planning. 10 CTR 50.32 provides the requirements for termination of requirement for nucleoprover nearch learness to submit a Decommissioning Activities Report (PSDAR). 10 CTR 50.13 (Ref. 3) provides the requirements for the minimum term of the NRCS of the minimum term of the NRCS domestic hereing and related regulatory functions. 	STANDARD FORMAT AND CONTENT FOR POST-SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT A. INTRODUCTION Furpose This regulatory guide identifies the type of information that the post-shutdown decomm activities report (PSDAR) mate contain and establishes a standard format for the PSDAR that the U.S. Nuclear Regulatory guide identifies the type of information that the post-shutdown decomm activities report (PSDAR) mate contain and establishes a standard format for the PSDAR that the U.S. Nuclear Regulatory Commission (NEC) staff commises acquiring the transformation of the Code of Polewing Requirings (IO REGULAR) and they may use the standard format to find to of the Code of Polewing Requirings (IO REGULAR) and they may use the standard format to
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TECHNICAL REVIEW

Technical review of the decommissioning strategy and schedule

Financial review of the decommissioning and spent fuel management funding

Environmental review for decommissioning the site

PSDAR QUESTION AND UPDATE PROCESS

- The NRC staff is reviewing the DCNPP PSDAR and will request any additional information needed to conclude that the PSDAR contains the required information
- The PSDAR may be updated as part of the initial review process and will become part of the staff's PSDAR acceptance letter
- Subsequent updates to the PSDAR will be publicly available and provided to the State, but do not require additional acceptance





NRC DECOMMISSIONING REFERENCES

NRC



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Decom	missioning Nuclea	ar Power Plants		th regulatory rec ration effective phtrol; mainter	quirements. ness; self-
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fter the license is terminated.				nspection of Pa	rt 50 power
Discussion Licensees may choose from	n three decommissioning	g strategies: DECON, SAFS	TOR. or		
NTOMB.	i un co occontinuostoning	g strategies. Discors, ora s	ron, or		
Under DECON (immediate tructures, and portions of the faci econtaminated to a level that per	lity containing radioactiv		d or	date for the ren I is to continue u	
Under SAFSTOR, often co nonitored in a condition that allow he property decontaminated.		nantling," a nuclear facility is beay; afterwards, the plant is			
Under ENTOMB, radioaet ermanently encased on site in stru- uch as concrete. The facility is mu- ntil the radioactivity decays to a l estricted release of the property. I censed facilities have requested t	ucturally sound material aintained and monitored level permitting To date, no NRC-				2561
The licensee may also choo ombination of the first two choice ortions of the facility are dismant shile other parts of the facility are eccision may be based on factors b ceay, such as availability of wast	es in which some fled or decontaminated eleft in SAFSTOR. The besides radioactive	Demolition of a Reactor Co	Intainment Building		
	completed within 60 yes	ars of the plant ceasing oper	ations. A time		

NRC INSPECTION MANUAL

INDEPENDENT SPENT FUEL STORAGE INSTALLATIONS AND FOR

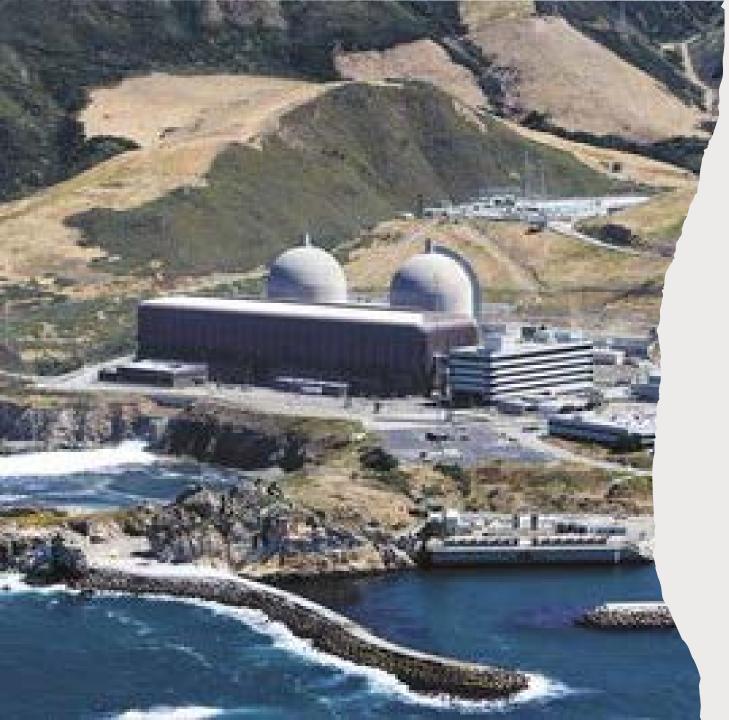
MANUAL CHAPTER 2690

NMSS/SFST

LINKS FOR PSDAR AND NRC REFERENCES



- Diablo Canyon Post-Shutdown Decommissioning Report (December 2019)
- NRC Request for Additional Information (RAI) on the Diablo Canyon PSDAR (February 2020)
- PG&E Responses to the Diablo Canyon PSDAR RAIs (March 2020)
- Update to the Diablo Canyon PSDAR (October 2021)
- Regulatory Guide 1.184: Decommissioning of Nuclear Power Reactors
- <u>Regulatory Guide 1.185: Standard Format and Content for the PSDAR</u>
- IMC 2561: Decommissioning Power Reactor Inspection Program
- IMC 2600: Fuel Cycle Facility Operational Safety and Safeguards Inspection Program
- NRC Information Digest for 2021-2022
- NUREG-1628: Staff Responses to FAQs Concerning Decommissioning of Nuclear Power Reactors
- NRC Backgrounder: Decommissioning of Nuclear Power Plants
- NRC YouTube Video on Decommissioning



PSDAR PUBLIC COMMENT METHODS

- During this meeting, which is being transcribed
- By mail:

Office of Administration Mail Stop: TWFN–7–A60M U.S. Nuclear Regulatory Commission Washington, DC 20555–0001 ATTN: Program Management, Announcements and Editing Staff

- Federal Rulemaking website: <u>http://www.regulations.gov</u>
 - Search for Docket ID NRC-2022-0132
 - Comments due by October 19, 2022





United States Nuclear Regulatory Commission

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THANKYOU!



OPA.RESOURCE@NRC.GOV



HTTPS://WWW.NRC.GOV

MAKING COMMENTS VIA TEAMS CONNECTION

- Raise your hand to speak
 - If you have joined via your computer, please raise your hand to speak by selecting the "raise hand" icon
 - If you have joined via phone, please press ***5** to raise your hand ; press ***5** again to lower your hand
- Once the Teams facilitator sees a raised hand, your name will be called and your microphone enabled
- If you have joined via phone, it will take about 4 seconds please stand by for the system to instruct the audience member to press ***6 to unmute your microphone**
- If possible, please introduce yourself and clearly state your name for the court reporter
- After you are done with the allotted time for comments your microphone will be disabled

