



Palisades Nuclear Plant Pre-Application Meeting

May 12, 2021



License Amendment Request (LAR)

Permanently Defueled Technical Specifications (PDTS)

Agenda

- Purpose
- Content
- Design Basis Accidents
- PDTS Proposed Changes
 - Renewed Facility Operating License Changes
 - Technical Specifications
 - Environmental Protection Plan
- Regulatory Basis
- Industry Precedent
- Schedule
- Questions

Purpose

- Present proposed changes to the Palisades Nuclear Plant (PNP) operating license:
 - Renewed Facility Operating License (RFOL)
 - Technical Specifications (TS)
 - Environmental Protection Plan (EPP)
- Solicit NRC Staff Questions and Comments

Content

- Applicability of Updated Final Safety Analysis Report (UFSAR) Design Basis Accidents (DBAs) after Permanent Shutdown
- Description of Each Change with Basis
- Applicable Regulatory Requirements
- No Significant Hazards Consideration
- Precedent
- Mark-ups and Clean RFOL, TS, and EPP Pages
- Mark-ups of the TS Bases (for information only)

Design Basis Accidents

- Postulated Cask Drop Accidents
 - No Additional Analysis
 - Ventilation Filtration Requirements for Fuel Decayed < 90 Days
 - Proposed License Condition to Support Ventilation TS Removal
- Fuel Handling Incident (FHA)
 - Additional Analysis for Spent Fuel Pool (SFP) Cases
 - Ventilation Filtration Requirements for Fuel Decayed < 17 Days
 - Proposed Effective Date of Amendment > 17 Days
- Liquid Waste Incident
 - No Additional Analysis
 - No PDTs Limiting Condition for Operation (LCOs) Required to Mitigate Consequences
- Waste Gas Incident
 - No Additional Analysis
 - Dose Limits Met with Fuel Decay of 17 Days

Design Basis Accidents

- Fuel Handling Incident (FHA)
 - Additional analysis cases for FHA in SFP
 - Used methods/assumption consistent with those in the alternative source term calculations of record
 - Results show ventilation filtration to mitigate offsite and control room dose consequences not required for FHA occurring > 17 days after shutdown
 - LAR proposes that the license amendment will not become effective until > 17 days after permanent shutdown
 - Supports proposed removal of:
 - TS 3.7.10, “Control Room Ventilation CRV Filtration”
 - TS 3.7.11, “Control Room Ventilation (CRV) Cooling”
 - TS 3.7.12, “Fuel Handling Area Ventilation System”

PDTS Proposed Changes

Renewed Facility Operating License (RFOL)

- Add Operating License condition 2.C.(5)
 - Movement of a fuel cask in or over the spent fuel pool is prohibited when irradiated fuel assemblies decayed less than 90 days are in the spent fuel pool
- Remove NFPA-805 Transition License Condition 2.C.(3)
 - License Condition requires compliance with 10 CFR 50.48(a) and 10 CFR 50.48(c)
 - PNP will comply with a 10 CFR 50.48(f) Fire Protection Program once the reactor is permanently defueled

PDTS Proposed Changes

Renewed Facility Operating License (RFOL):

- Administrative Changes:
 - Remove term “Operating” to reflect PNP as a Permanently Defueled Reactor
 - Remove historical license conditions
 - Remove license conditions applicable to operating plants

PDTS Proposed Changes

TS Section 1.0, Use and Application:

- TS 1.1 Definitions deleted except for:
 - ACTIONS
 - CERTIFIED FUEL HANDLER
 - NON-CERTIFIED OPERATOR
- TS 1.2 Logical Connectors
 - Revised to reflect remaining TS
- TS 1.3 Completion Times
 - Revised to reflect remaining TS
- TS 1.4 Frequency
 - Revised to reflect remaining TS

PDTS Proposed Changes

TS Section 3.0, LCO Applicability

- TS 3.0 Limiting Condition for Operation (LCO) Applicability
 - LCO 3.0.1 and LCO 3.0.2 revised to reflect remaining TS
 - TS LCO 3.0.3 through LCO 3.0.9 deleted
 - TS SR 3.0.1 through SR 3.0.4 revised to reflect remaining TS

PDTS Proposed Changes

TS Section 3.0, LCO Applicability

- TS 3.1 through TS 3.9 Deleted except for:
 - TS 3.7.14, Spent Fuel Pool (SFP) Water Level
 - TS 3.7.15, Spent Fuel Pool (SFP) Boron Concentration
 - TS 3.7.16, Spent Fuel Pool Storage
- TSs 3.7.14 and 3.7.15 FREQUENCY
 - Changed back to original 7 days
 - Surveillance Frequency Control Program Removed
- TSs TS 3.7.10, TS 3.7.11, TS 3.7.12 Removal Requirements
 - Postulated Cask Drop Accidents - License Condition 2.C.(5)
Spent Fuel 90 days decay requirement
 - FHA - PDTS Amendment Effective Date after 17 days Spent Fuel Decay

PDTS Proposed Changes

TS Section 4.0, Design Features

- TS 4.1 Site Location
 - No Change
- TS 4.2 Reactor Core
 - Deleted
- TS 4.3 Fuel Storage
 - Revised to Remove Sections Applicable to Receipt of New Fuel

PDTS Proposed Changes

TS Section 5.0, Administrative Controls

- Deleted Sections:
 - TS 5.5.2, Primary Coolant Sources Outside Containment
 - TS 5.5.5, Containment Structural Integrity Surveillance Program
 - TS 5.5.6, Primary Coolant Pump Flywheel Surveillance Program
 - TS 5.5.8, Steam Generator (SG) Program
 - TS 5.5.9, Secondary Water Chemistry Program
 - TS 5.5.10, Ventilation Filter Testing Program
 - TS 5.5.11, Fuel Oil Testing Program
 - TS 5.5.13, Safety Functions Determination Program (SFDP)
 - TS 5.5.14, Containment Leak Rate Testing Program
 - TS 5.5.16, Control Room Envelope Habitability Program
 - TS 5.5.17, Surveillance Frequency Control Program

PDTS Proposed Changes

TS Changes Section 5.0, Administrative Controls

- Deleted Sections:
 - TS 5.6.5, Core Operating Limits Report (COLR)
 - TS 5.6.6, Post Accident Monitoring Report
 - TS 5.6.7, Containment Structural Integrity Surveillance Report
 - TS 5.6.8, Steam Generator Tube Inspection Report

PDTS Proposed Changes

Environmental Protection Plan (EPP) changes:

- Administrative Changes:
 - Replaced terms related to Construction or Operation with terms to reflect the handling and storage of spent fuel and maintenance of the facility where appropriate
 - Replaced terms related to “Plant or Station” with “Facility”
 - Removed terms related to power level

Regulatory Basis

PDTS Applicable Regulations:

- 10 CFR 50.82, *Termination of License*
- 10 CFR 50.36, *Technical Specifications*
- 10 CFR 50.48(f) [fire protection program requirements after termination of license under 10 CFR 50.82]
- 10 CFR 50.51, *Continuation of license*
- 10 CFR 50, Appendix A, *General Design Criteria for Nuclear Power Plants*

Industry Precedent

- San Onofre Nuclear Generating Station, Units 2 and 3, Amendments 230 and 223, respectively, July 17, 2015
- Crystal River Nuclear Plant, Unit 3, Amendment 247, September 4, 2015
- Fort Calhoun Station, Amendment 297, March 6, 2018
- Oyster Creek Nuclear Generating Station, Amendment 295, October 26, 2018
- Pilgrim Nuclear Power Station, Amendment 250, October 28, 2019
- Indian Point Nuclear Generating Plant, Unit 2, Amendment 294, April 28, 2020

Schedule

- Plan to submit by June 1, 2021
- Request NRC approval by May 31, 2022
- Request the Amendment Effective after:
 - Irradiated Fuel in the SFP has Decayed 17 Days or More.
 - Certifications of Permanent Cessation of Operations and Permanent Removal of Fuel from the Reactor Docketed in accordance with 10 CFR 50.82(a)(1)
- Requesting a 60-day implementation period after amendment becomes effective

