Pilgrim Nuclear Power Station

Post-Shutdown Decommissioning Activities Report

NRC Public Meeting
January 15, 2019

WE POWER LIFE℠

Introductions

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Pilgrim Near-Term Milestones

Milestone	Target Date
Pilgrim ceases power operations	May 31, 2019
All nuclear fuel removed from reactor and placed in spent fuel pool	June 2019
Submit certifications to the NRC that the reactor has permanently ceased operations and is permanently defueled	June 2019
Transition organization to Phase 1 SAFSTOR structure and outplacement of ~300 employees	June 2019

Entergy continues to be committed to safety, health and security through the shutdown and decommissioning of Pilgrim

Post-Shutdown Decommissioning Activities Report (PSDAR)

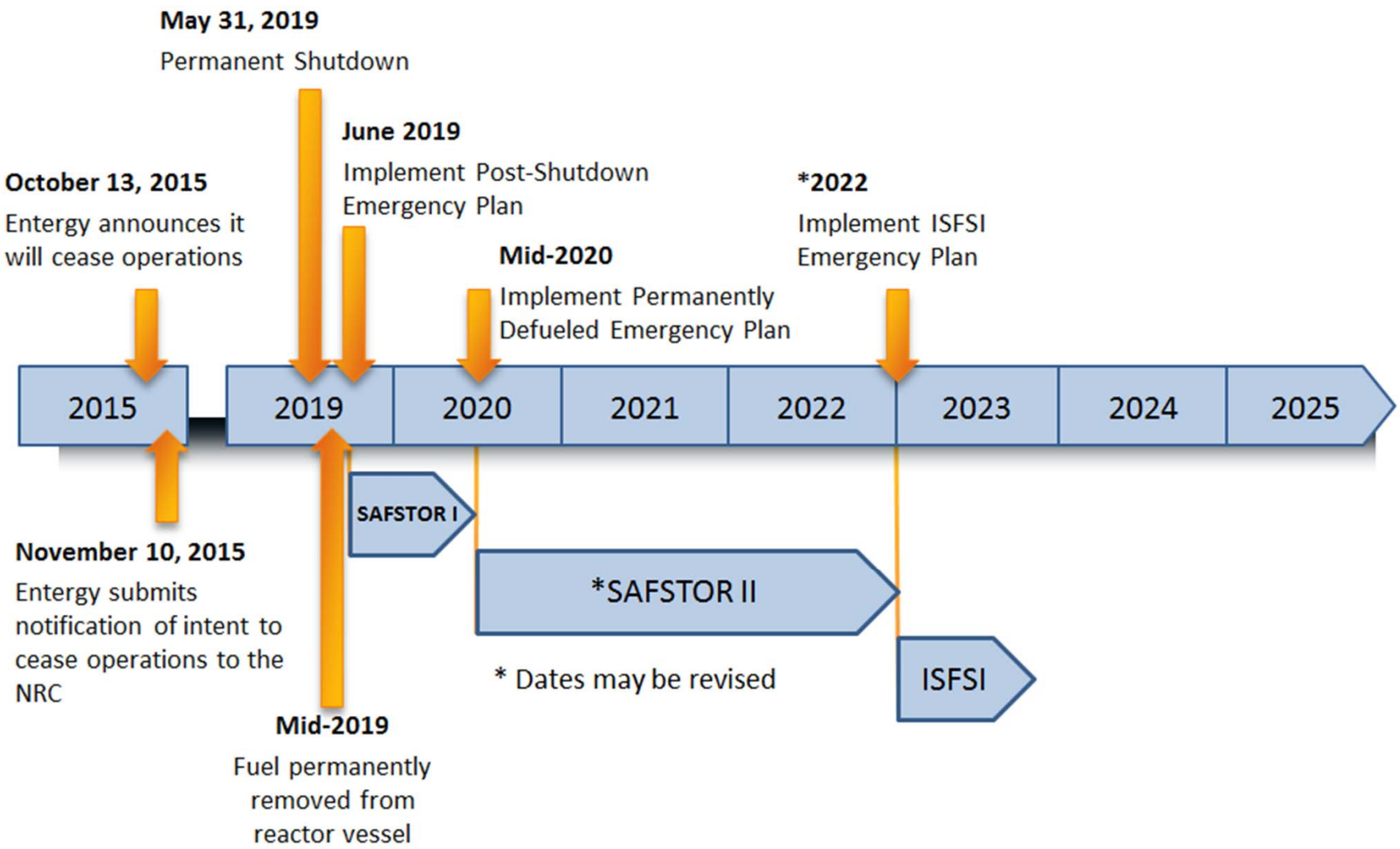
Requirements/Guidance

- 10 CFR 50.82(a)(4)
- NRC Regulatory Guide 1.185, Revision 1 (June 2013)
- Review of recent PSDAR submittals to the NRC by plants in decommissioning
- Prepared by an experienced team including TLG Services and the Pilgrim Decommissioning Project Organization

PSDAR Content

- Description of Planned Decommissioning Activities
- Decommissioning Schedule
- Decommissioning Cost Estimate (DCE)
- Discussion of Environmental Impacts

Transition to Dry Fuel Storage Dormancy



Entergy 60-Year SAFSTOR Schedule

Decommissioning Activity	Start	End	Approximate Duration (Years)
Transition from Operations			
Plant Shutdown	5/31/19	-	-
Preparations for SAFSTOR Dormancy	5/31/19	3/30/20	0.84
SAFSTOR Dormancy			
Dormancy Period w/Wet Fuel Storage	2020	2022	2.8
Dormancy Period w/Dry Fuel Storage	2022	2062	40.0
Dormancy Period w/No Stored Fuel	2062	2073	10.4
Dismantling & Decontamination (D&D)	2073	2079	5.9
Site Restoration	2079	2080	1.5

Decommissioning Cost Estimate (DCE)

Requirements/Guidance

- 10 CFR 50.75(c), 10 CFR 72.30, 10 CFR 50.54(bb)
- TLG Services cost estimating model and data
- Plant specific data from walk downs and plant design information

DCE Content

- Discusses certain Decommissioning Plan assumptions
- Specific Costs for:
  - License Termination
  - Spent Fuel Management
  - Site Restoration
- Provides Total Costs by Decommissioning Period

DCE and Funding Assurance

Financial Data	Amount
SAFSTOR Site-specific DCE (in 2018$)	
License Termination	$1.19B
Spent Fuel Management	$420M
Site Restoration	$53M
Total Estimate	$1.66B
Nuclear Decommissioning Trust Fund (10/31/2018)	$1.05B
Projected NDT balance at license termination	$152.8M

The Pilgrim Nuclear Decommissioning Trust balance provides financial assurance for the decommissioning costs of Entergy's SAFSTOR plan

Environmental Impacts

- The environmental impacts associated with the site-specific decommissioning activities for Pilgrim will be bounded by appropriate previously-issued environmental impact statements
  - NUREG-0586, Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Supplement 1, Regarding the Decommissioning of Nuclear Power Reactors, Final Report, November 2002
  - NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 29, Regarding Pilgrim Nuclear Power Station, July 2007

Dry Fuel Storage Plan

- A total of 4,114 spent fuel assemblies will be required to be stored in 61 cask systems on-site:
  - The current pad has seventeen (17) loaded Holtec System 100 Multi-Purpose Canisters (MPCs) each with 68 fuel assemblies (1,156 total)
  - The Spent Fuel Pool currently stores 2,378 spent fuel assemblies
  - There are 580 fuel assemblies in the reactor vessel
  - 44 additional casks are required to transfer spent fuel from wet to dry storage
- A new ISFSI Facility will be constructed to store all spent nuclear fuel in one location
- A revised Spent Fuel Management Plan was submitted to the NRC in accordance with 10 CFR 50.54 (bb) on November 16, 2018

Pilgrim License Transfer Application

- An application to transfer the control of Pilgrim licenses from Entergy to Holtec was filed with the NRC on November 16, 2018
  - Control of Renewed Facility Operating License and general ISFSI license to Holtec International
  - Authority to conduct licensed activities to Holtec Decommissioning International
- If approved, license transfer will allow accelerated decommissioning
  - Holtec targets completion of radiological decommissioning (except for ISFSI) in 2024 under DECON timeline vs. 2079 for Entergy's SAFSTOR plan
- Holtec targets completion of dry fuel storage project (all spent nuclear fuel on new ISFSI pad) by end of 2021
- Accelerated decommissioning allows for earlier release of portions of the Pilgrim site for reuse
- NRC approval of application is requested by May 31, 2019 to complete transaction in the second half of 2019

Availability of Entergy Filings for Pilgrim

More information about Pilgrim and Entergy's decommissioning-related submittals to the NRC are publicly-available at:

www.PilgrimPower.com