Oyster Creek NGS

July 17, 2018 - PSDAR Public Meeting

Decommissioning Plant Manager
Jeff Dostal

Exelon Generation®

Background

- Commercial Operation Date: December 23, 1969
- Capacity 637 megawatts (More than 600,000 homes)
- No. of employees: Approximately 450
- Total acreage: 779 acres

Powering the Community

Exelon Contributions
$20 Million

Oyster Creek gave
$400,000+ in 2017

Community Partners

- United Way of Monmouth and Ocean Counties
- Popcorn Park Zoo
- Lacey Food Bank
- New Jersey Special Olympics
- Lighthouse Center
- Lacey Township Athletic Foundation
- Marine Mammal Stranding Center
- Conserve Wildlife Foundation

Powering the Community

Oyster Creek conducts more than 15 tours per year, on average

Oyster Creek visits more than 20 schools and civic groups per year, on average

Community Outreach

- Energy Education Day
- Community Information Night
- Career and Science Fairs
- Weekly Interactions With Regional & Community-Based Media
- Volunteer Day Activities
- NRC Public Meetings
- State of the Plant Dinner
- Stakeholder Information Forum

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Oyster Creek Physical Characteristics

Site is bounded by the streams of Oyster Creek and Forked River.

The main source of cooling water is the Barnegat Bay via an intake canal along the South Branch of the Forked River. Upon Shutdown water usage will continue to be reduced, in the first two months flow through the Intake canal will be reduced by 96%.

Total acreage: 779 acres
- 152 acres on the West side of Route 9
- 627 acres on Finninger Farm
- 217 acres to be donated to Lacey Township

Oyster Creek Decommissioning Strategy

SAFSTOR (Target is March 2024)

Exelon continues to assess all options for the decommissioning of Oyster Creek. We have selected SAFSTOR as our current strategy.

- The planning for SAFSTOR has been performed while ensuring an efficient shift to Decon / Dismantlement can be made at any time.
- In all strategies moving fuel to dry storage as soon as possible reduces risk and is the most efficient option.
- All structures and systems not supporting fuel storage will be drained, deenergized and retired in place, ready for removal.
- Restructure the site to an ISFSI only protected area with the rest of the industrial site in a dormant state
- SafStor Strategy allows for natural radioactive decay, reducing dose to workers during decommissioning, and reducing the amount of contaminated waste material.

Site Decommissioning Phased Approach

Oyster Creek Time Line (SafStor)

Shutdown Decision Until Permanent Shutdown	Shutdown through Fuel Permanently Removed from Rx	All Fuel Permanently Removal from Rx Until End of Zr Window	End of Zr Window Until Fuel Pool Empty	Fuel in the SFP or ISFSI until Removed by DOE	License Termination Removal of ISFSI Pad & Site Restoration
Decommissioning Transition		SAFSTOR / DECON			Site Restoration

Transition Planning: 5 to 2 Years → SHUT DOWN → Phase I: < 30 Days → Phase II: 10 to 18 Months → Phase III: 2 to 5 Years → Phase IV: 10 to 49 Years → Phase V: 2 to 4 Years

Phase Objectives:

Form & Charter Transition Teams

Develop & Implement staffing plans

Strategic Decisions developed

Develop and submit key LARs, PSDAR, and DCE

Perform Scoping & Screening of SSCs

Phase Objectives:

Offload the core

Implement Permanently De-fueled E-Plan

Implement Certified Fuel Handler Program

Phase Objectives:

DC Activities start based on strategic plan

Movement of Fuel to ISFSI IAW Strategic Plan

Retire Systems not required to support Fuel Storage

Implement Defueled License & Tech Specs

Phase Objectives:

Transition to Post Zr Window milestone E-plan

Movement of Fuel to ISFSI

Final system layup and SafStor Preps

Complete preparations for collapsing Site Protected Area

Phase Objectives:

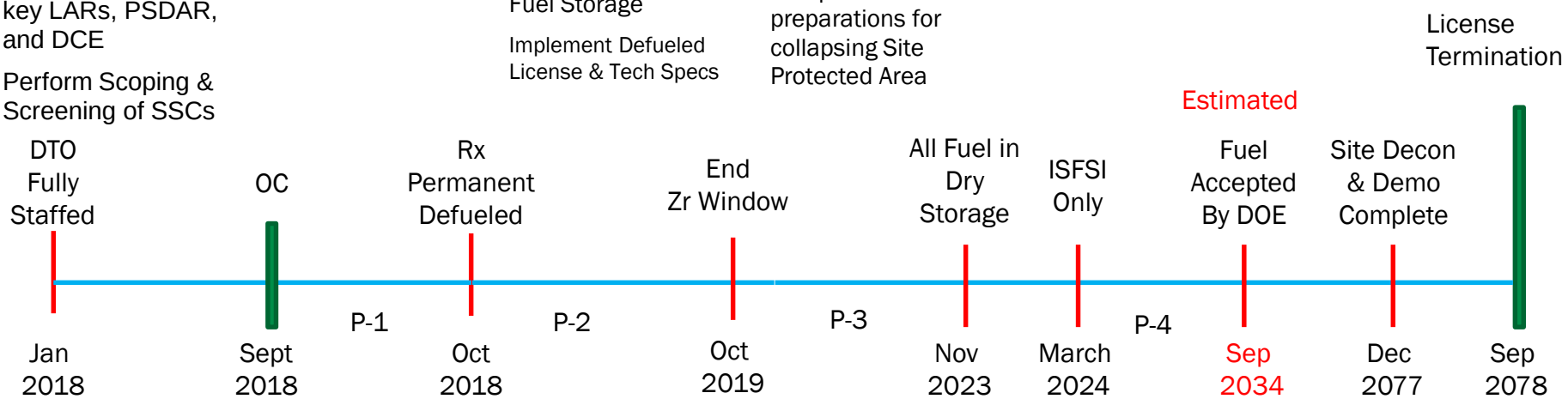
Transition to ISFSI only E-Plan

Continue with DC activities based on strategic decisions

Implement ISFSI only Security Plan

Phase Objectives:

Restore Site based on Strategic decision



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Decommissioning – Independent Spent Fuel Storage Installation

- Fuel will be moved to dry storage as soon as possible.
- The ISFSI site will be approximately six acres

- Dry Cask storage systems have been certified to maintain structural integrity and function from flooding, high winds, and impacts.

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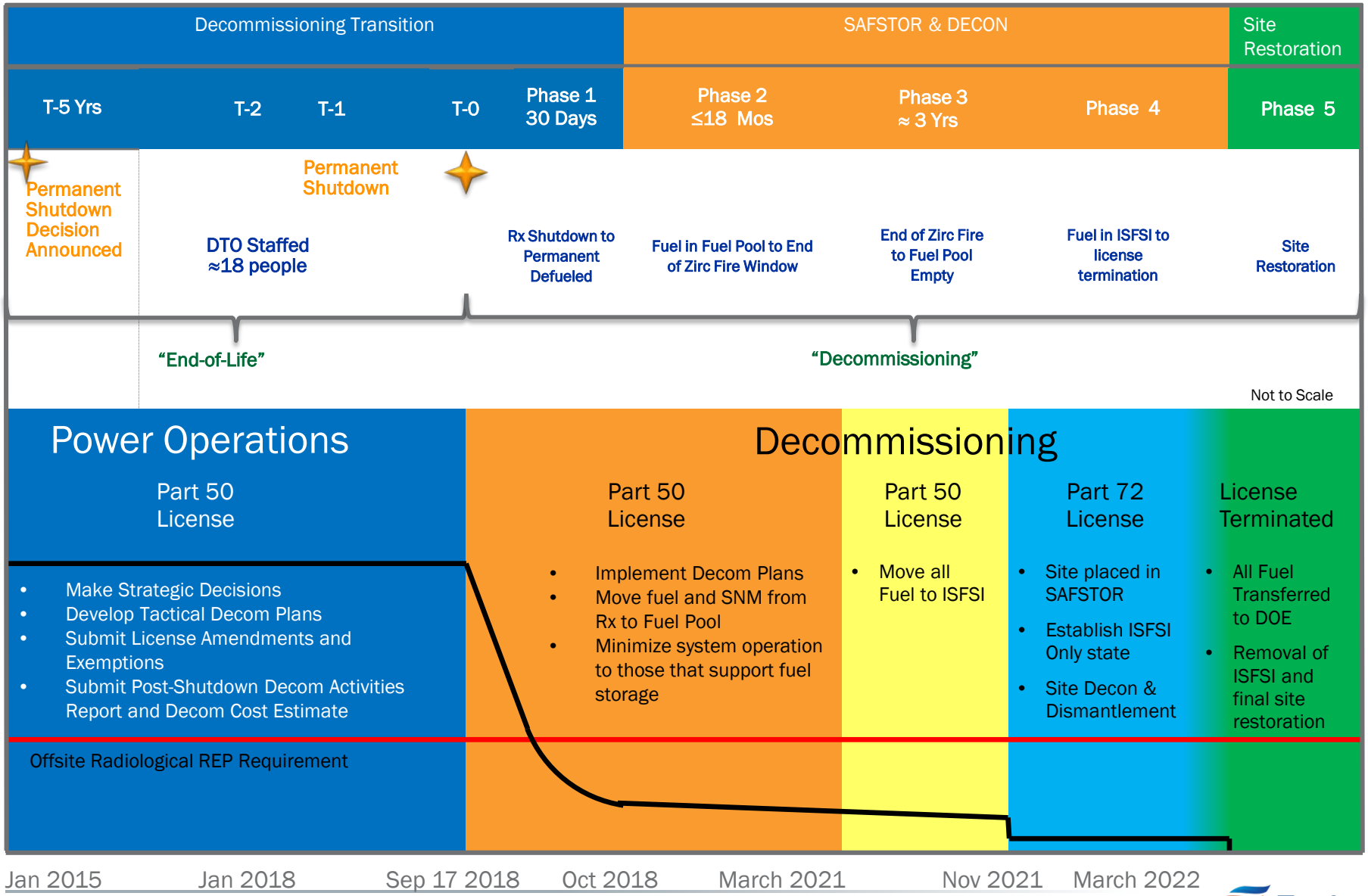
Oyster Creek Decommissioning Risk Change



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Key Takeaways

- Exelon is committed to operating Oyster Creek safely and efficiently with a smooth transition into Site Decommissioning.
- Nuclear, environmental, and industrial safety remain the core principles that drive our decommissioning plans.
- The nuclear industry is developing expertise in decommissioning as a result of other industry shutdowns, we will continue building on that experience from earlier efforts.
- Exelon will maintain an effective Emergency Plan throughout the decommissioning process.
- Exelon does not have any plans for land use or development of the Oyster Creek site at this time.