Oyster Creek Nuclear Generating Station Decommissioning

Michael Gallagher

Vice President License Renewal & Decommissioning, Exelon Generation

NRC Pre-Submittal Meeting for License Transfer Application

August 15, 2018

Exelon

Agenda

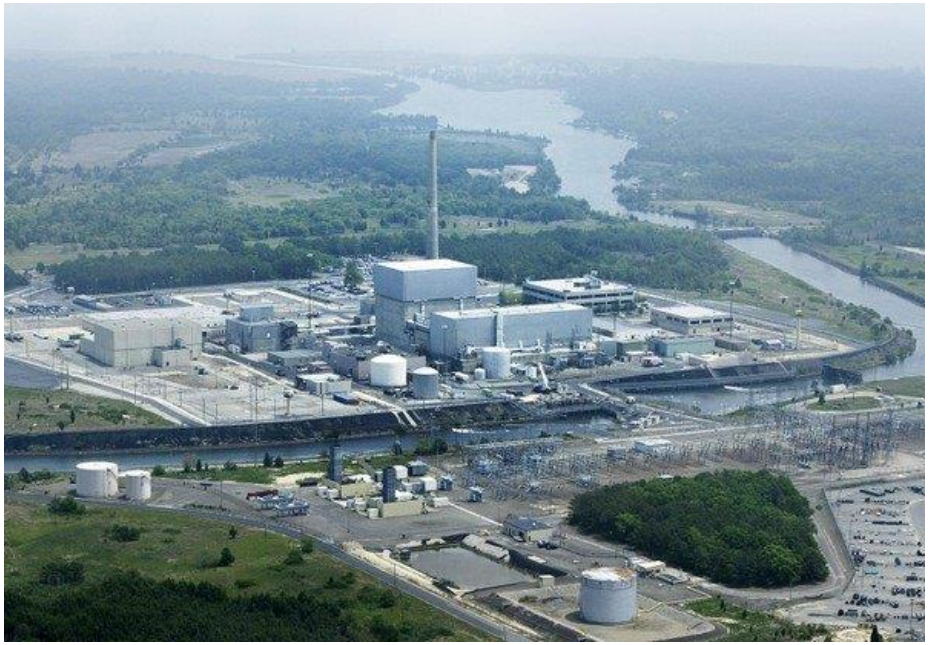
- Introductions
- Current Status of Oyster Creek
- Overview of Holtec International and Partners
- License Transfer Application
- Submittal Schedule

Current Status of Oyster Creek

- Current staffing level ~450
- Planned for permanent shut-down in September 2018
- Post Shutdown Decommissioning Activities Report submitted on May 21, 2018
- PSDAR selects SAFSTOR as decommissioning strategy
- Planning for SAFSTOR has been performed while ensuring an efficient shift to DECON 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
- Should the transaction not close or the license not transfer, Exelon Generation will maintain Oyster Creek in SAFSTOR in accordance with the PSDAR

PSDAR Timeframes

- **March 2020 – Dec. 2073:** Dormancy
- **March 2024:** all fuel moved to ISFSI
- **June 2076:** large component removal complete
- **Dec. 2077:** plant systems removal and building decontamination complete
- **Sept 2078:** license termination
- **April 2080:** site restoration



Oyster Creek Nuclear Generating Station Decommissioning License Transfer Application NRC Pre-Submittal Meeting

15 August 2018

About Holtec & Its Partner

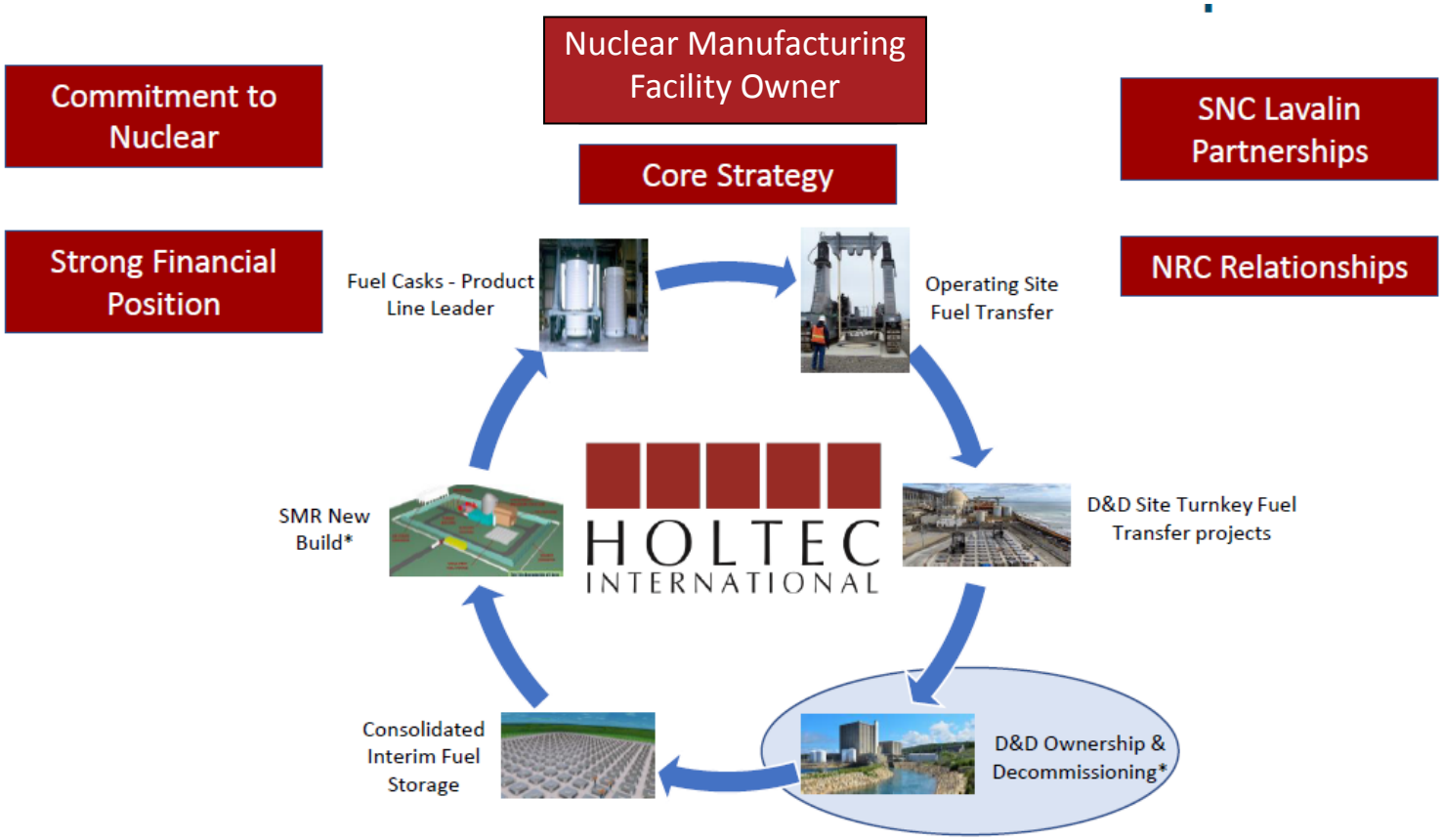
Holtec Decommissioning International

ATKINS
Member of the SNC-Lavalin Group

KENTZ
Engineers & Constructors
Member of the SNC-Lavalin Group

CDI is jointly owned by Holtec and SNC-Lavalin with Holtec as the majority owner

Holtec Nuclear Stewardship



Site ownership is an integral part of Holtec's long-term strategy

Holtec Financial Strength

- US company, headquartered in Camden, NJ
- Profitable in every year of operation since Holtec began 30 years ago
- Large and diversified customer base in US and 16 foreign countries
- No long term debt

SNC·LAVALIN

Founded in 1911, SNC-Lavalin is a publicly traded company providing professional services and project management solutions

Core Business

- OEM component supplier
- Decommissioning planning, project management and engineering
- Decommissioning cost estimating
- Waste management

Financials

- Sustained growth with over $15 billion (CAD) in backlog
- Strong credit ratings, Standard & Poor's Rating BBB/stable

Decommissioning

- DOE O&M Projects experience
- Management Team experience on Zion, Magnox, research reactor and other decommissioning projects
  - Team members led planning and execution on these projects

SNC-Lavalin Group

SNC-Lavalin

- Global engineering and construction group
- Developer and OEM of the CANDU reactor technology
- Acquired Atkins in 2017

ATKINS

- Wholly-owned subsidiary of SNC-Lavalin
- Extensive experience in nuclear cleanup and decommissioning activities
- Key acquisition of EnergySolutions' Projects, Products, and Technology Division in 2017

Holtec Team

Holtec International

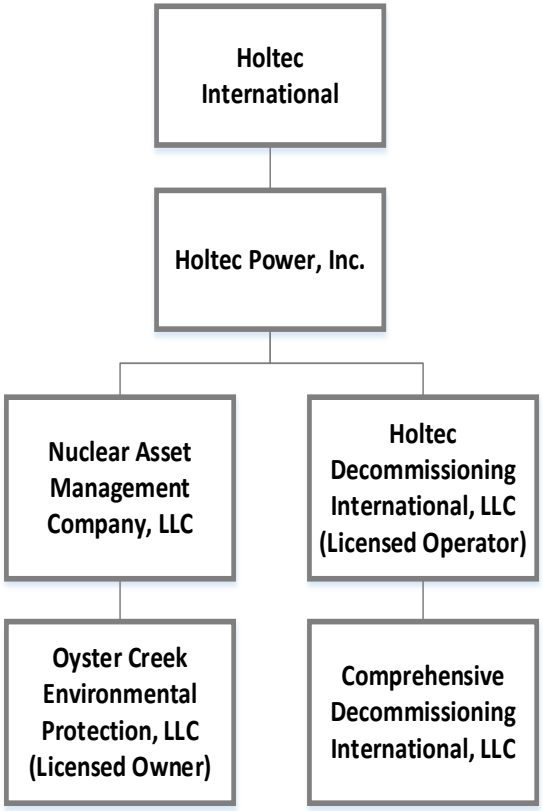
- Private entity
- Spent fuel management and nuclear services
- HI-STORE CIS Facility (New Mexico) Application
- SMR Program (partnership with SNC-Lavalin)
- ETR Fleet spent fuel cask/storage vendor

Holtec Decommissioning International

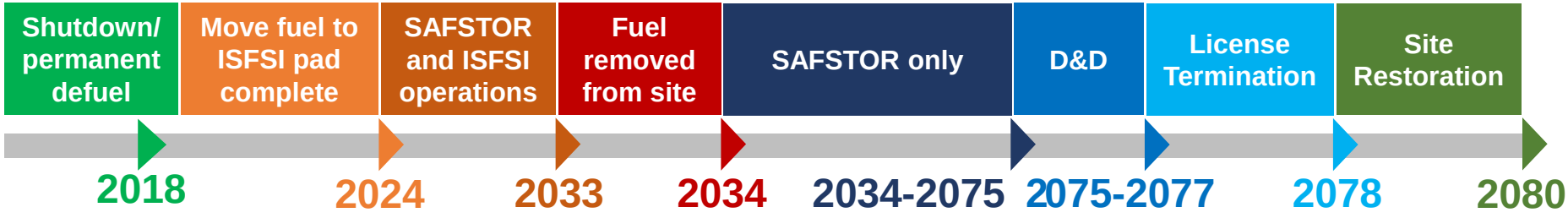
- Wholly-owned Holtec subsidiary
- Formed to maintain Holtec owned decommissioning plants
- Resourced to manage licensed and decommissioning activities at permanently shutdown and defueled sites.
- Will become licensed operator for Oyster Creek

CDI (Comprehensive Decommissioning International)

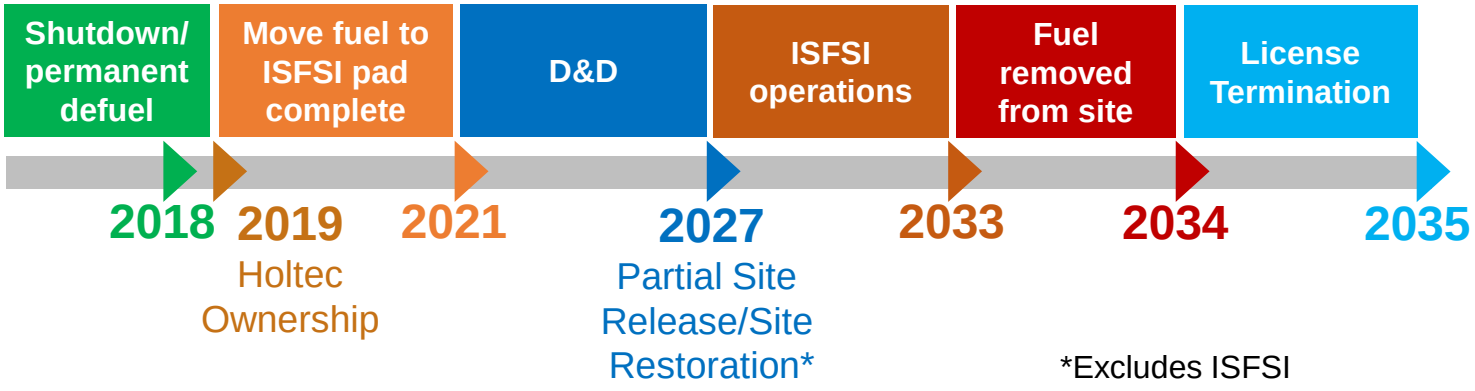
- Jointly owned by Holtec/SNC-Lavalin
- Decommissioning General Contractor (DGC)



Exelon Oyster Creek SAFSTOR Timeline



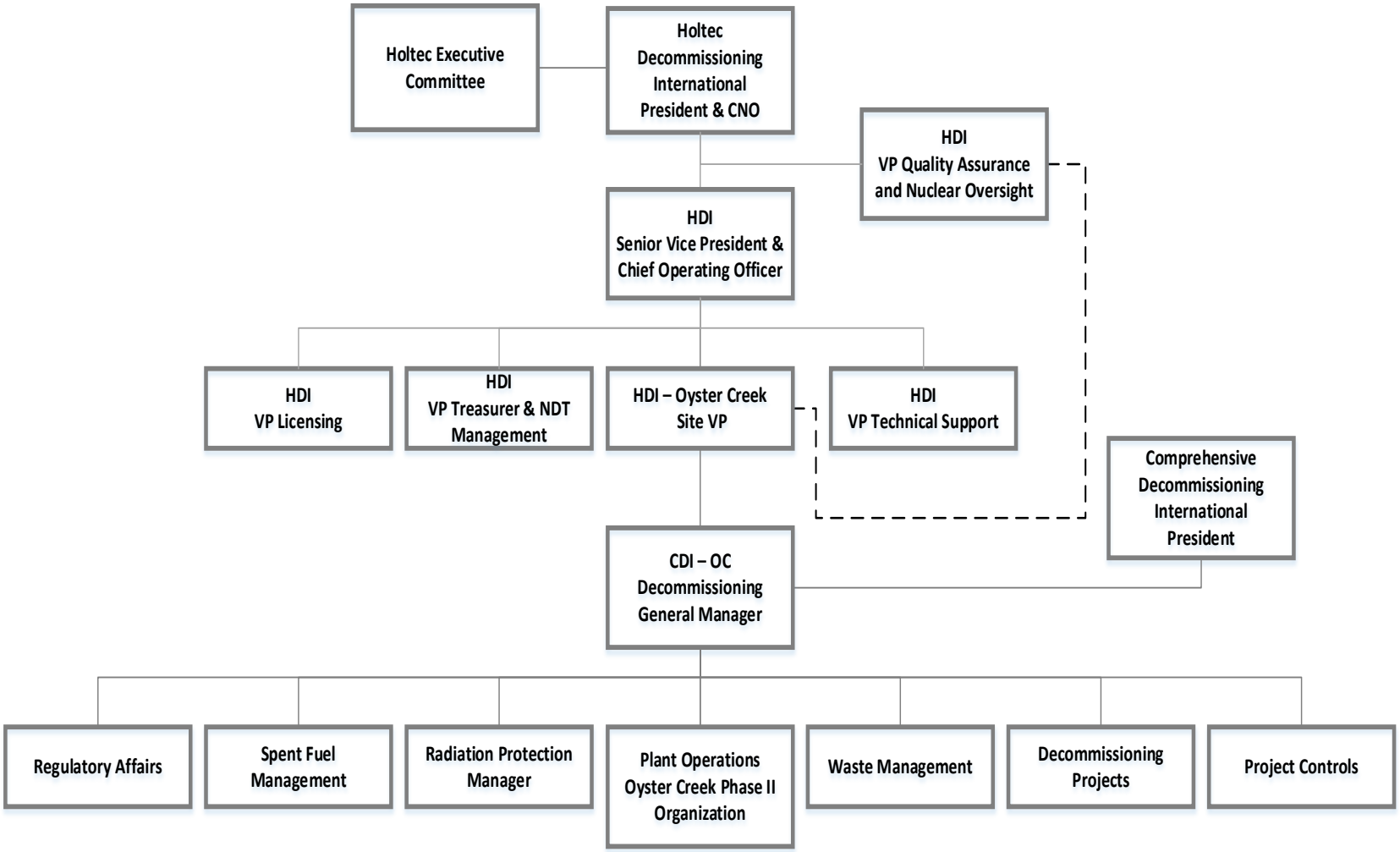
Holtec's Planned Accelerated DECON Timeline



*Excludes ISFSI
**Assumes Spent Fuel Removal Complete in 2034

Accelerates Decommissioning from 2077 to 2027
License Termination Complete in 2035 vs. 2078**

Decommissioning Organization



Regulatory Plan

Submittal	Date
Purchase and Sale Agreement	July 31, 2018 (completed)
License Transfer Application (joint submittal with Exelon)	August 17, 2018
Revised PSDAR to reflect DECON including DCE update	Early September 2018
Revised Spent Fuel Management Plan	Early September 2018
Exemption request to use NDT funds for SFM and Site Restoration	Early September 2018
License Transfer approval	Request NLT May 2019

Compliance with NRC Regulations

License Transfer Application Review Areas	NRC Regulation
Application contents and NRC reviews	✓ 10 CFR 50.80
Financial Qualifications and Financial Assurance	✓ 10 CFR 50.33 ✓ 10 CFR 50.75
Technical Qualifications	✓ 10 CFR 50.40(b), ✓ 10 CFR 50.34 ✓ NUREG-0800, 13.1.1-13.1.3 ✓ Regulatory Guide 1.8; ANSI 3.1
Foreign Ownership, Control or Domination	✓ 10 CFR 50.38

Compliance with NRC Regulations

License Transfer Application Review Areas	NRC Regulation
Insurance and Indemnity	✓ 10 CFR 50.54(w)(1) ✓ 10 CFR 140.11(a)(4)
Quality Assurance	✓ 10 CFR 50 Appendix B
No Significant Hazards Considerations and Conforming Amendment	✓ 10 CFR 2.1315(a)
Environmental Consideration	✓ 10 CFR 51.22(b) ✓ 10 CFR 51.22(c)(21)

Technical Approach

Holtec team will accomplish the following:

- Maintain the plant in compliance with the site license and NRC requirements
- Oversee the completion of the ISFSI expansion
- Perform radiological decommissioning
- Relocate spent fuel from the wet to dry storage
- Store, control and protect the nuclear spent fuel
- Decommission the ISFSI
- Restore the site

Why this strategy?

- Accelerate moving the nuclear spent fuel from the pool to the pad
- Uses a qualified and integrated team
- Focused on site compliance with license and regulations
- Accelerate the decommissioning and waste removal
- Reduced risk of radiological release
- Earlier release of the site for beneficial use

Transition Plan

- Readiness assessment prior to license transfer
- Establish a seamless integrated organization on site
- Adopt existing Programs, Procedures and Processes
- Employ remaining Oyster Creek site personnel
- Oyster Creek incumbent manager targeted for HDI Site VP position

Seamless transition at License Transfer
Compliance Maintained

Conclusion

License Transfer for Accelerated Decommissioning

Oyster Creek License Transfer Application will satisfy NRC requirements and guidance

1. Technical Qualifications
2. Financial Qualifications and Decommissioning Funding
3. Foreign Ownership, Control, or Domination
4. Nuclear Insurance and Indemnity
5. Commitment and Focus on Nuclear Safety

Accelerated decommissioning is in the public good

1. Achieves prompt decommissioning of Oyster Creek
2. Accelerates potential re-purpose of the site
3. Sets stage for irradiated fuel transfer to ISFSI

Next Steps

Milestones	Target Date
Joint Exelon and Holtec LTA Submittal	August 2018
Holtec submits Revised PSDAR/DCE, Spent Fuel Plan and Exemption to use NDT funds (Spent Fuel Management and Site Restoration)	September 2018
Oyster Creek NRC approvals	May 2019
Exelon shutdown and defueling • NRC certifications of permanent cessation of operations and permanent defuel	October 2018
Oyster Creek Transaction Close	July 2019