NDCAP Presentation
August 15, 2018
Introductions

Entergy

- Mike Twomey – Vice President External Affairs – Entergy Wholesale Commodities (EWC)

Holtec and SNC Lavalin

- Pierre Oneid – President and CNO, Holtec Decommissioning International
- Mark Morant – Chief Executive Officer, Comprehensive Decommissioning International
- Chris Massey – Vice President of Operations, Comprehensive Decommissioning International
Contents

Holtec
- Overview
- Experience

SNC-Lavalin
- Overview
- Experience

Comprehensive Decommissioning International
- Prompt Decommissioning

Our Commitment to Safety, Integrity & the Environment
Holtec’s Commitment

- Safety
- Integrity
- Engagement
Holtec’s Commitment to Nuclear

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

- Private entity with $6B in backlog
- Spent fuel management and nuclear services
- Pilgrim and Vermont Yankee spent fuel cask/storage vendor
- Resourced to manage licensed and decommissioning activities at permanently shutdown and defueled sites
- Proposing to become licensed operator for Pilgrim
- HI-STORE Consolidated Interim Storage (CIS) Facility (New Mexico) Application
Key Leadership

Dr. Kris P. Singh
President & Chief Executive Officer, Holtec
- Dr. Singh has led Holtec International since 1986
- Built the company into a technology leader respected for its engineered goods and services
- Grown business to nine major operations centers in three countries and an active business presence on four continents

Mr. Pierre Onied
Senior Vice President & Chief Nuclear Officer, Holtec
- Mr. Oneid is the Senior Vice President of Holtec International
- Corporate executive responsible for the Nuclear Power Division,
- Serves as the Chairman of the Holtec’s Executive Committee
- Serves as Chairman of Holtec Comprehensive Decommissioning International (CDI)
- Director of CDI
Holtec’s Worldwide Dry Storage and Transport Experience

110 Nuclear Plants Worldwide Rely on Holtec’s Dry Storage Technology
Manufacturing Capabilities

Three Major U.S. Manufacturing Plants

- Holtec Manufacturing Division (HMD)
  - Turtle Creek, PA
- Orrvilon, Inc. (ORR)
  - Orrville, Ohio
- Advanced Manufacturing Division (AMD)
  - Krishna P. Singh Technology Campus, Camden, NJ
- 1.4M square feet of Shop Space

We will work to find jobs within our companies for those employees who opt not to stay with Entergy at another facility
Managing the spent nuclear fuel encompasses approximately 99% of all radioactive material on a former nuclear site

Holtec brings:

- 30 years of safe spent nuclear fuel management
- Expertise in designing/build on-site fuel storage installations
- SNF services supplied to over 110 nuclear sites worldwide
- Only cask certificate holder that has performed all dry storage implementation work with in-house resources

At Vermont Yankee, Holtec recently set an industry benchmark by completely defueling the spent fuel pool in just over 3.5 years
Holtec’s HI-STORM Dry Storage System

- HI-STORM system is licensed and designed to accommodate spent nuclear fuel assemblies in a single basic overpack design by utilizing different multi-purpose canisters (MPCs)

- Safe & Robust
  - Vertical, ventilated, cylindrical overpack engineered to minimize dose and provide a robust structural enclosure for the contained MPC
  - Provides mechanical protection, cooling, and radiological shielding for the contained MPC
  - Designed to withstand high-velocity winds, tornadoes, high energy lightning, and other natural phenomena
Holtec’s Commitment

- Safety
- Integrity
- Engagement
SNC-Lavalin Overview

- Founded in 1911, publicly traded
- Strong credit rating
- Global engineering and project delivery company
- Established footprint in Clean Power, Infrastructure, Mining & Metallurgy, Transportation, Oil & Gas and Nuclear
- Acquired Atkins and EnergySolutions’ US nuclear projects division in 2017
- Sustained growth with around $12 billion in backlog

We are a trusted solutions provider for all reactor types including CANDU, AGR/BWR/PWR, and SMRs
SNC-Lavalin Core Values

- **Safety** - We put safety at the heart of everything we do, to safeguard people, assets and the environment.

- **Integrity** - We do the right thing, no matter what, and are accountable for our actions.

- **Collaboration** - We work together and embrace each other’s unique contribution to deliver amazing results for all.

- **Innovation** - We redefine engineering by thinking boldly, proudly and differently.

Since 2013 we have implemented a world-class integrity program all levels of the organization.

2018 CEO Neil Bruce nominated Co-chair of the World Economic Forum’s Partnering Against Corruption Initiative
Key Leadership

Mr. Mark Morant
Chief Executive Officer, CDI
- 30 years in nuclear clean-up, 8 in the US
- Chairman of Canadian Nuclear Laboratories at Chalk River
- Former CEO of Magnox
- Executive responsible for a number of US nuclear waste sites, water clean up at Fukushima, and Zion D&D in 2014/15

Mr. Christopher Massey
Vice President of Operations, CDI
- 35 years of nuclear cleanup experience, 24 in the US
- Extensive waste management experience on both commercial and government projects
- Experienced leader in reactor decommissioning strategy and planning

Ms. Amee Sandhu
Regional Integrity Head, USA & LATAM, SNC-Lavalin
- 11 years with Legal department of Candu Energy
- 4 years as Ethics and Compliance Officer for Power Sector, including Nuclear, of SNC-Lavalin
- 6 years, and foundational member, SNC-Lavalin Ethics and Compliance
- Frequent speaker on anti-corruption and integrity panels
Zion Nuclear Power Station, USA
- Many current Atkins/SNC-Lavalin employees were involved in this project

Big Rock Point Nuclear Power Plant, USA
- Major component removal including the reactor vessel and decontamination/demolition of the Radioactive Waste Building

Magnox Reactor Fleet, UK
- Managed operations, defueling, and decommissioning of 22 Magnox nuclear power reactors at 10 sites

Fukushima Dai-ichi, Japan
- Supplied water treatment technologies, dewatering solutions, and new storage/disposal canisters

CANDU Fleet, Worldwide
- Provider of reactor services and major refurbishment of primary systems
Comprehensive Decommissioning International (CDI)

- A focused D&D delivery company, combining Holtec’s spent fuel skills with SNC-Lavalin’s decommissioning capability
- Holtec and SNC-Lavalin are working and investing together in the nuclear industry—we are long term partners
- Two financially strong parent companies able to stand behind project delivery
CDI’s Approach to Pilgrim D&D

▪ Safety and care for the environment is paramount
▪ Prompt D&D strategy
  • Target 2.5-3 years for fuel safely in ISFSI
  • Target 8 years to ISFSI only
▪ Stewardship of ISFSI until retrieval by the US Department of Energy (or early removal to Holtec’s CIS facility)
▪ Site restoration standards to be discussed
▪ Experienced management team working with site personnel and supply chain
▪ Backed by financial assurance to meet NRC requirements
CDI’s Prompt D&D Plan

Start
+3 years
Fuel moved to onsite interim storage area

Reactor internals removed
+2 years
Steam turbine, generator and pressure systems removed

+2 years
Reactor building demolition

+1 year
NRC site survey and license amendment to fuel storage only

2020 Approx. 8 years start to finish 2028
CDI’s Commitment to Safety, Integrity & the Environment

- We commit to safety, integrity and the protection of the environment; our business cannot succeed without it.
- We will ensure the safe and secure storage of spent nuclear fuel.
- We aim for often and transparent dialog with officials and the NDCAP.
- We and the industry have an obligation to safely and securely manage the nuclear legacy.
- We plan to be an integral part of the Plymouth and regional community.

Together, we will ensure the safe decommissioning of the Pilgrim Nuclear Station.
Thank you