



THE SUCCESSFUL D&D OF ZION NUCLEAR STATION

PROVEN PROGRAMS • EFFECTIVE TRANSITION • WORLD-CLASS PERFORMANCE



ZION SOLUTIONS LLC
An EnergySolutions Company

ZionSolutions has achieved performance confidence with the NRC and other federal, state, and local regulators and stakeholders.

- Licensee 10CFR50 Appendix B Program implementation
- Quarterly "Zion Community Advisory Panel" (ZCAP) meetings
- Disposal of 22,390 Curies of Class B & C waste
- Transfer of 2,226 spent fuel assemblies to 61 dry storage casks at the ISFSI within 366 days
- Packaging and transfer of 460,000 Ci of Greater-Than-Class-C (GTCC) to four dry storage casks at the ISFSI
- Segmentation of two Reactor Vessel Internals and Reactor Vessels
- Off-site removal and disposal of all large components



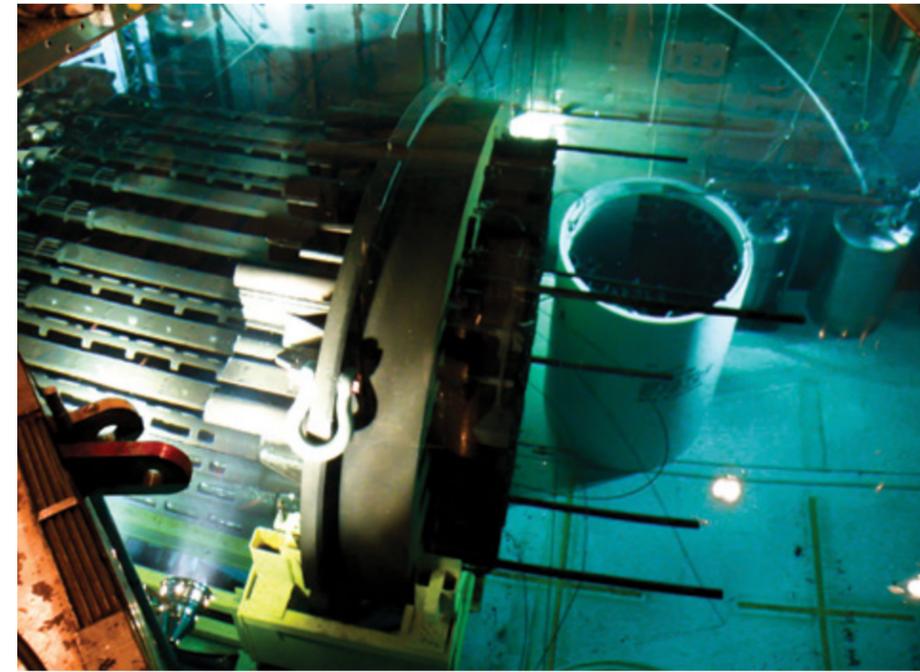
Lessons learned resulted in steam generators being removed twice as quickly from the Unit 2 reactor (3 months) as Unit 1 (6 months)

Major Milestones

- ISFSI Construction and Fuel Transfer **(Complete)**
- Reactor Vessel Segmentation **(Complete)**
- Major Component Removal **(Complete)**
- Submittal of approval of License Termination Plan (LTP) **(Complete)**
- Completion of Radiological DECON **(2018)**
- Completion of Final Status Survey (FSS) **(2018)**
- Completion of Site Restoration **(2019)**

We are currently on track and setting records for:

- Completion of D&D within eight years
- Low-cost, high performance for the largest 2-unit site D&D in the U.S. to date
- Largest and fastest dry cask storage campaign in U.S. history
- Final project dose 40% less than original dose estimate



Reactor Vessel Internals Segmentation

- Utilized mechanical cutting to avoid significant secondary waste creation and eliminate the significant radiological concerns experienced in previous D&D projects
- Most cost-effective vessel internals segmentation project to date
- Optimized cutting and waste loading campaigns to minimize Class B & C waste costs
- Worked both units in parallel to stay off a critical path and not interfere with spent fuel loading



Independent Spent Fuel Storage Installation (ISFSI)

- Industry record-setting cask loading campaign (61 casks in 52 weeks)
- Largest D&D project ISFSI site in the U.S. to date
- Extra effort (fuel bale repairs) expanded to ensure ultimate compliance with TBD DOE requirements
- First modern D&D ISFSI Security command center to be accepted by the NRC

March 2012

Fuel pool work involved inspecting 1,369 fuel assemblies. Of these, 13 were identified as being failed, and will be placed in fuel cans prior to being loaded into dry casks.

August 2012

Ground Clearing for ISFSI Begins



April 2013

Both ISFSI Pads Complete



January 2014

First Fuel Canister Moved to the Pad



July 2014

Successful Move of Unit 2 Lower Casting Assembly



January 2015

Fuel Transfer Operations Complete



August 2015

Twin Reactor Decommissioning Scope Complete with Removal & Shipment of Unit 2 HBH



December 2015

Steam Generator Removed from Unit 2 in Record Time



January 2016

Five-year Reactor Vessel Segmentation Project Complete



March 2016

Major Component Removal Complete



The decommissioning of Zion Nuclear Station is the first time in the history of the nuclear power industry that two nuclear units have been safely dismantled at the same time. This critical step in the decommissioning process was achieved following the highest industry standards for worker, industrial, and radiation safety—with no impact on the environment. The project set world records for the largest and most successful spent fuel transfer campaign, as well as the most cost-effective reactor vessel internals segmentation project to date. The Zion D&D project remains on budget and two years ahead of schedule.



For more information, contact:

Mark Walker

VP, Marketing & Media Relations

Cell: (801) 231-9194

E-mail: mwalker@energysolutions.com

Websites:

www.zionsolutionscompany.com

www.energysolutions.com