

THE SOURCE

EnergySolutions continues to make great progress on all D&D projects. In March, the U.S. Nuclear Regulatory Commission (NRC) approved the license termination and site release for the La Crosse Boiling Water Reactor in Wisconsin. Work continues at Kewaunee, TMI-2, SONGS, Fort Calhoun, and the NS Savannah. The Zion D&D Project is under review for License Termination with all physical work completed.

NS Savannah

Radiation Safety and Control Services, Inc. (RSCS) and EnergySolutions partnered for the decommissioning of the NS Savannah, the first nuclear-powered merchant ship.

RSCS started preparations for the project in 2007 and completed Phase I in 2021.

The RSCS-EnergySolutions joint venture is conducting Phase II and Phase III, with remediation expected to be complete mid-2023. In November 2022, the team safely removed, containerized, and transported the reactor for disposal at Clive.

The goal of the decommissioning team is to preserve the ship as a national historic landmark.

photo: Reactor removal from NS Savannah



PAGE 2
TMI-2 & Kewaunee

PAGE 3
Fort Calhoun & SONGS

PAGE 4
Zion, La Crosse & SEFOR



To date, the project team has achieved more than 347,000 hours worked without a lost time accident.

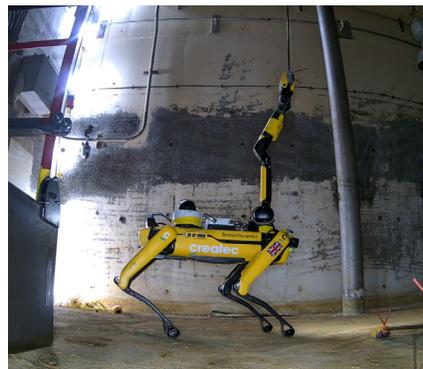
In May 2021, the TMI-2 project team relocated to the site to commence schedule development, determine means and methods of executing decontamination and decommissioning, complete surveys and characterization, and prepare the required regulatory documents for the NRC. The current NRC operating condition of the site is SAFSTOR, or Post Defueling Monitored Storage (PDMS). TMI-2 is scheduled to transition from PDMS to Decontamination on May 1, 2023, pending NRC approval of the License Amendment Request and a brief implementation period.

Once in Decontamination, significant field work will commence. Most of the work will be done remotely utilizing robotic, heavy equipment.

- Removal of the 23' diameter reactor building equipment hatch and enlarging the opening to facilitate moving equipment and waste containers in and out of the building.
- Removal of furniture (toolboxes, tools, equipment, etc.) to free up needed floor space for further



TMI-2 Reactor building equipment hatch



D&D's best friend, Spot, the robotic survey dog

decontamination activities, as well as lower the general area dose rates.

- Removal and segmentation of core flood tank "B" for additional space and dose reduction.
- Removal and segmentation of the reactor building air coolers, which are three stories high.

WHAT'S UP AT KEWAUNEE



Through the Wisconsin winter, the Kewaunee project team continues to mobilize in preparation for D&D.

The office trailer complex is expanding, creating a centralized location for all project personnel. On-site road modifications are underway that will fortify construction and demolition debris haul paths. Three hundred intermodal containers on site set the stage for Phase 1 waste generation, which is forecast to start Q2 2023

Radiation Protection surveys of the buildings wrap up, and final cavity, transfer canal, and spent fuel pool surveys are planned to start later this year. Polar Crane, Turbine Building and Aux/Fuel Handling Building inspections were completed to identify restoration activities required.

The advancement of regulatory permitting continues to allow compliant site modifications, positioning the project for D&D to start this spring.

Fort Calhoun Station

The Fort Calhoun Station (FCS) decommissioning project has been a leader in the decommissioning industry over the past couple of years. The project team is coming off a very successful 2022.

- Radioactive waste packaged and shipped.
 - o 86.2 million pounds C&D waste shipped in 2022.
 - o 49 cask shipments
 - 36 NRC Class A
 - 13 NRC Class B/C
- Open-air demolition
 - o Rad Waste Building
 - o Auxiliary Building
 - o Chem/ RP/ TSC Buildings
- Clean Building demolition
 - o Intake Structure
 - o Turbine Building
 - o Service Building
 - o Maintenance Building
- Successful completion of the Reactor Vessel Internals (RVI) project.



Fort Calhoun Decommissioning Area (white building)



Reactor Vessel Sand Box Cover removal



GTCC Rad Waste container



Meet FSC's Waste Manager

Jedidiah Emich is responsible for the day-to-day waste operations along with the management of the waste

organization and program at FCS. Jedidiah and his team successfully transitioned the waste operations from a startup in 2021 to a very efficient waste program/campaign in 2022.

Jedidiah has more than 21 years of experience and has been with Energy Solutions since 2021.

SONGS

The SONGS D&D project has successfully shipped about 190 million pounds of waste material to date with zero safety or compliance issues.

SONGS Large component from arrives at Clive

These shipments include large components—two Reactor Heads and the three out of sixteen Fuel Racks. The team is coordinating activities to begin removal and transport of the RCPs and Pressurizers this year. The RVI project has completed segmentation of the Upper Guide Structure in both units and RVI activities are currently scheduled to end by July 2023. The first of ten GTCC canisters has been loaded and is being processed.

After the GTCC and B/C Waste has been removed from the Core Support Barrel (CSB), the remaining components will be segmented in half and transported in the BARB. The Reactor Vessel (RV) project is currently scheduled to start in August 2023. Demolition of the U2 Turbine is complete, with the contractor focusing on U3 and the intake structure to close out 2023.

Zion Nuclear Power Station



In September 2010, EnergySolutions announced it officially reached an agreement with Exelon Nuclear to commence decommissioning and site restoration of the Zion Nuclear Power Station located in Illinois.

The license stewardship was a first-of-its-kind approach to accelerating the decommissioning of a nuclear power plant. EnergySolutions created a subsidiary called ZionSolutions that acquired all assets and decommissioned the plant as owner and NRC licensee of the facility.

All physical work has been completed, and the final status survey awaits NRC approval for a license termination and return of the property and the independent spent fuel storage installation to Exelon.

SEFOR No More

The Southwest Experimental Fast Oxide Reactor (SEFOR) was located near Fayetteville, Arkansas. Decommissioning activities started in 2016 with EnergySolutions—in coordination with the University of Arkansas—successfully petitioning the U.S. Department of Energy for funding to complete the decommissioning of the facility. Decommissioning activities wrapped up in 2019 on time and budget. All waste from the project was shipped to the Clive Disposal facility, except for the reactor which was containerized and shipped for disposal in Nevada.

La Crosse Boiling Water Reactor

In January 2015, EnergySolutions finalized the license stewardship agreement with Dairyland Power Cooperative and became the licensee responsible for decommissioning the La Crosse Boiling Water Reactor (LACBWR) located outside of Genoa, Wisconsin. EnergySolutions safely relocated the spent fuel to an onsite storage facility and removed all radioactive material from the plant footprint. In February 2023, the Nuclear Regulatory Commission approved license termination and site release for the decommissioning project and to finalize documentation for the plants' license transfer back to Dairyland Power.

