

DOMINION ENERGY FUEL STORAGE

NAC International completes Kewaunee fuel transfer in record time

NAC PROJECT HIGHLIGHTS

- NAC completed 23-week loading campaign on schedule
- Industry best loading durations averaged 3.2 days per cask system
- NAC delivered 24 high-capacity MAGNASTOR systems, housing 887 spent fuel assemblies
- Dry cask storage technology transition to MAGNASTOR

TRANSFERRING KEWAUNEE'S USED FUEL TO DRY STORAGE

Using advanced fuel storage technology, license amendments and a strong partnership with Dominion Energy, NAC International transferred fuel from the shutdown Kewaunee Power Station to storage in record time.

After shutting down the Kewaunee plant in Wisconsin in 2013, operator Dominion Energy awarded NAC a turnkey contract to move its fuel from pool-to-pad and into storage. This included site engineering, Independent Spent Fuel Storage Installation (ISFSI) expansion, storage system, pool-to-pad equipment and loading services.

NAC transferred 887 fuel assemblies from pool to pad in under 23 weeks.

Dominion Energy set a strict six-month defueling schedule to accelerate the transition to Phase 3 SAFSTOR decommissioning. Under SAFSTOR, Dominion has 60 years to complete all dismantling and decontamination (D&D) activities.

The project employed NAC's ultra-high capacity MAGNASTOR (Modular, Advanced Generation, Nuclear All-purpose Storage) System. The Nuclear Regulatory Commission (NRC) license for the MAGNASTOR system permits fuel unloading after minimum 2.5-year cooling times in selected locations.



Top photo: Transport of 24th MAGNASTOR system to Kewaunee ISF-SI pad. **Bottom Photo:** NAC MAGNASTOR spent fuel casks in storage at the Kewaunee ISFSI.

Spent fuel is typically cooled for at least 5 years in the pool before being transferred to casks. The license amendment significantly accelerated the transfer of Kewaunee's fuel into the casks.

With this project, NAC achieved an average fuel unloading time of only 3.2 days per cask. This feat far exceeded the initial schedule of one cask per week.

SOURCE: *Nuclear Energy Insider*

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