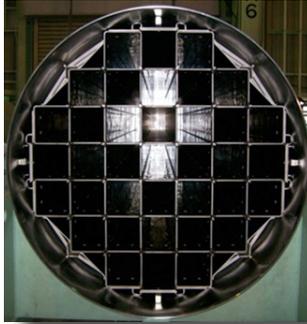


THE MAGNASTOR® SPENT FUEL MANAGEMENT SYSTEM



BWR Basket



PWR Canister & Basket



Vertical Concrete Cask

Leveraging 45 years of operations for safe spent nuclear fuel transport and storage, NAC designed MAGNASTOR to be the ideal system for managing spent fuel at operating and shutdown sites.

- Safety: Higher capacity with optimized loading patterns reduces loading events and supports ALARA.
- Operational excellence: Canister processing steps have been streamlined through implementing lessons learned in initial deployments—averts surprises that could disrupt plant operations.
- Schedule supporting: Higher capacity means fewer systems to load, and at less frequent intervals.
- Highly supports decommissioning plant objectives: The optimized loading plan enables the spent fuel pool to be emptied quicker, equating to millions of dollars in savings.

Practicality of Design — The transportable storage canister (TSC) basket layout uses 21 tubes to form 37 assembly slots (PWR), and 45 tubes to form 87 assembly slots (BWR)

- The design yields a higher capacity system with weight and dimensions similar to lower capacity systems; transitioning to the 16% to 54% higher-capacity MAGNASTOR is relatively unobtrusive.
- MAGNASTOR has proven materials that have been used for decades—basket strength and thermal efficiency are accentuated; storage casks use like materials to that of plant reactor buildings.
- MAGNASTOR's regional loading permits a mixture of older-colder fuel alongside newer-hotter fuel to optimize the spent fuel loading plan, providing pool emptying acceleration at shutdown sites.
- MAGNASTOR has been loaded numerous times at operating sites, and lessons-learned have been implemented eradicating first-time deployment issues.

Safety and Efficiency of Design — MAGNASTOR is able to accommodate the wide range of spent fuel heat loads, without pushing the limits to extremes that could be dose intensive.

- MAGNASTOR's capacity advantage lessens the number of TSC loadings, reducing heavy load lifts, and reducing entry of personnel into radiated environments.
- MAGNASTOR's capacity advantage results in less ISFSI space requirements, as well as less construction activity, reducing costs while promoting safety through less activity.
- MAGNASTOR's operations using a single closure lid, accelerated drying times and streamlined welding, promote processing efficiency and ALARA.
- MAGNASTOR's streamlined under-the-hook weight, and operational flexibility, allows existing crane usage, and its total weight does not compromise qualified haul-paths or constructed ISFSI pads.
- MAGNASTOR's Damaged Fuel Can (DFC) design employs lessened learned from numerous decommissioning site activities—damaged fuel and “outliers” are easily accommodated.

Superior Capacity — exceptional return on investment, with rapid recovery of start-up and transition costs, is enabled through less systems, loadings, construction and less canister shipments and site debris.