

USED FUEL SERVICES:

THE TRANSWARE ADVANTAGE

The Why?

The strategic handling and disposal of used fuel can be an overwhelming task complicated by fuel histories spanning almost 40 years, a variety of cask vendors, and ever changing loading requirements. Fuel miss-loads and tech spec violations can be devastating. Sub-optimal loadings can paint you in a corner and excessive campaign or off-site dose can be dangerous to your staff.

TransWare has helped load more than 8000 fuel assemblies into over 170 casks from vendors such as Holtec, TransNuclear, and NAC. With experience spanning all phases of the loading campaign, we can help ensure success in yours.

The How?

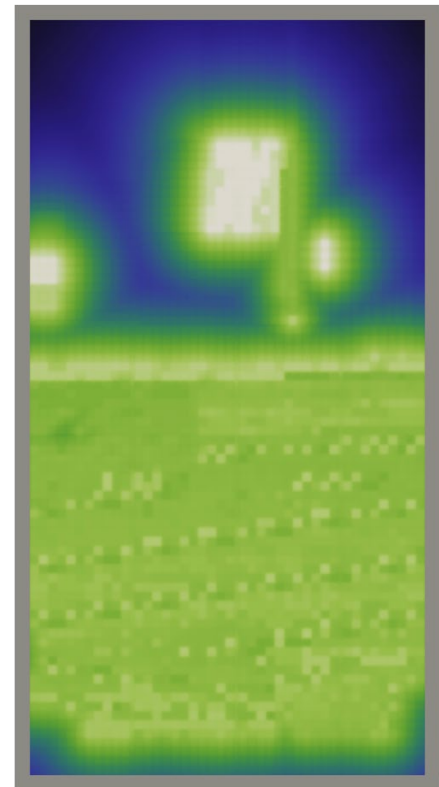
Vendor methods typically rely on design-basis calculations which are not representative of the majority of your to-be-loaded fuel. By taking a site-specific approach, we can drastically reduce your loading constraints and dose estimates that keep you from achieving a cost-effective program.

By analyzing your complete fuel inventory, we help you optimize your cask loads, making the best use of spent fuel assemblies and discarded hardware.

Each cask and pad arrangement is unique, and we believe your dose calculations should be as

well. We can utilize industry standard methods, like MCNP, to provide you with occupational and off-site dose estimates that are unique to your site.

We also have spent fuel pools covered. Whether your pool is shared between units or standalone, we can provide support for heat load calculations, concrete wall assessments, or absorber pad analyses.



Spent Fuel Pool Heat Map

The Advantage

TransWare vast experience with all plant, cask, and fuel vendor designs brings you the industry leading expertise you need for a successful used fuel program. Whether you're starting or maintaining a program, we can provide you a better solution in areas such as:

- Program Initialization

Starting a program and preparing for your first campaign involves many components and errors early on can limit you later in life. We can take care of procedure writing, fuel characterization, database initializations and cask vendor selection, just to name a few.

- Long-term Planning and Maintenance

Once your program is up and running, we can help with regular updates, providing optimized loading patterns that make the best utilization of your dead and fresher fuel assemblies as well as monitoring any changes to your vendor licensing requirements.

- Dose Estimation and Mitigation

Occupational and off-site dose evaluations can be performed using site and cask-specific fuel loadings to maximize your staff's ability to perform loading activities and ensure fence dose limits.

- Spent Fuel Pool Evaluations

For fuel you haven't loaded, TransWare can provide supporting evaluations for the spent fuel pool including concrete wall heating calculations, time-to-boil evaluations, and neutron absorber pad analyses.

TransWare is 50.59 and 72.48 qualified at several utilities and has performed work under the utility QA program, or under their own NUPIC-approved quality assurance program that meets the requirements of 10CFR50, Appendix B and 10CFR21.



Related Services

Spent fuel is the only item in need of disposal. When the time comes, TransWare can assist with many of the tasks associated with decommissioning. We enjoyed recent success supporting the decommissioning efforts for the Zion Station.