

Used Fuel Loading

Faster deployment, shorter loading campaigns, and lower dose exposure to your crew.

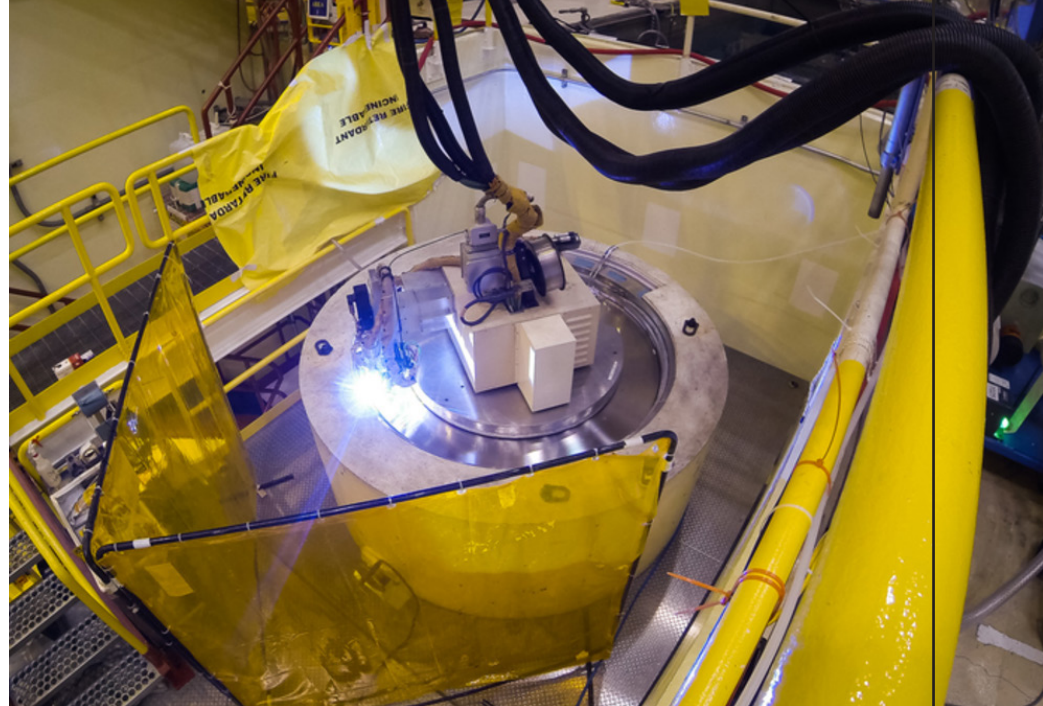
Orano TN's used fuel loading team offers a comprehensive solution to ensure utilities manage their used fuel efficiently and cost-effectively with minimal risk. Orano TN has a proven track record on independent spent fuel storage installation (ISFSI) startup projects, and has participated in campaigns at more than 20 U.S. sites. The team has moved more than 20,000 fuel assemblies without incident and has more than 80 consecutive loadings on schedule and on budget.

Scope of services

Before the actual campaign begins, the Orano TN team analyzes the site and establishes site specific pool-to-pad procedures to include:

- 50.59 and 72.48 screenings/evaluations
- NUHOMS® Systematic Approach to Training (SAT) program
- Dry run plans
- Readiness assessments
- 72.212 compliance reports

The team also assists with component receipt inspections, equipment pre-operational checkout and testing, and dry run activities to include a U.S. Nuclear Regulatory Commission (NRC) dry run if required.



The used fuel loading team performs several functions, including:

- Used fuel loading into dry shielded canisters (DSCs)
- Inspection, confirmation and documentation of correct fuel loading
- DSC shield plug and lid placement
- Turnkey welding—equipment, ASME Section IX qualified welders, filler material, quality assurance/control, non-destructive examination services, and helium leak testing—as specified in the certificate
- Vacuum drying
- Helium backfill
- Transport to the ISFSI
- Transfer to the horizontal storage module
- Post-loading decontamination services
- Completed documentation packages
- Preparation and storage of ancillary equipment for the next campaign.

NUHOMS University

Orano TN created NUHOMS University as an industry best training model. NUHOMS University, when combined with Framatome's Lynchburg Fuel Training Center, is the only domestic facility that is equipped to enable training on all aspects of NUHOMS operations—besides the heavy lifts into and out of the spent fuel pool—including welding, processing, vacuum drying, helium backfill, helium leak testing, lid removal and NUHOMS alignment operations.

NUHOMS University was created to respond to customer expectations for:

- Human performance in all aspects of nuclear operations
- A comprehensive SAT-based training program modeled on Institute of Nuclear Power Operations (INPO) industry standard, that has been reviewed and approved for use by utilities
- Trainees that work with real, life-sized equipment
- An in depth and comprehensive training course taught by industry experts with credentials in licensed reactor operations and INPO-certified training

The training is normally led by the upcoming project's project coordinator, thus it serves as a hands-on practice for the future project.

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BENEFITS

NUHOMS University graduates receive certification in the following areas:

NUHOMS shift manager

NUHOMS cask loading lead

NUHOMS vacuum drying operator

Orano TN automated welding system operator

NUHOMS trailer operator

NUHOMS alignment operator

NUHOMS University is delivered in a five to six week session at our facility in Aiken, SC. This training is normally conducted twice per year (February-March and July-August). Utility involvement is encouraged.

NUHOMS University qualifies personnel in roles rather than tasks, much like that of an operating utility. The program consists of 80 hours of NUHOMS classroom training and exams, and 104 hours of NUHOMS on-the-job training and job performance measure exams.

Training modules consist of:

- NUHOMS general systems overview
- NUHOMS transfer equipment operations
- NUHOMS onsite transfer cask/DSC prep
- NUHOMS draining and drying operations
- NUHOMS alignment operations
- NUHOMS operating experience
- Orano TN automated welding system

Additionally, NUHOMS University graduates will have completed OSHA forklift, aerial lift and rigging training.

This process has been accepted by the NRC for dry run demonstrations for welding and vacuum drying operations.