



Orano TN

Engineering Services

Providing engineered solutions for managing used fuel and radioactive waste, drawing on international expertise, and cutting-edge nuclear industry innovation.

FOCUS AREAS

Nuclear, chemical, mechanical, electrical, systems

Licensing

Emergency preparedness

Validation and verification

Commercial-grade dedication

Research & development planning and execution

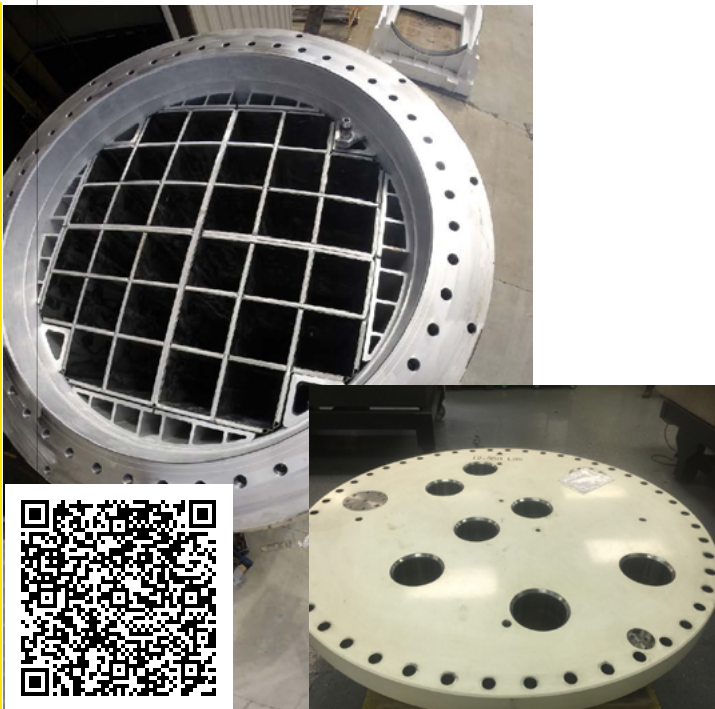
Environmental Safety & Health

Nuclear facility architecture and design

Radiation Protection

Radwaste solutions

Recycling technologies



The TN-32B Cask and lid

High Burnup Fuel Storage

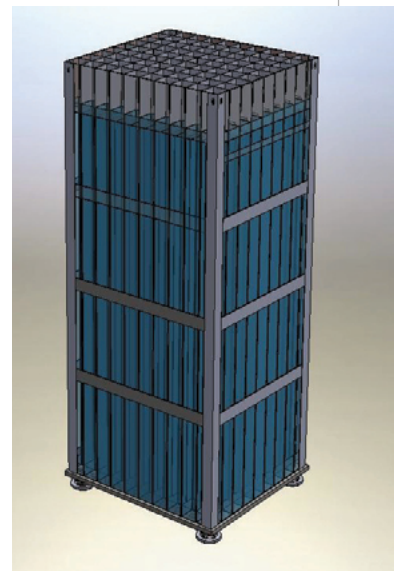
The High Burnup Fuel (HBU) Demonstration Cask R&D project team was awarded the 2019 U.S. Department of Energy Secretary's Achievement Award, for providing data needed by the nuclear industry to support extended storage of HBU used nuclear fuel.

The cask used for this demonstration program was modified for the storage of HBU fuel, proving that HBU fuel can be safely stored and transported, thereby saving the industry hundreds of millions of dollars.

NuStor™ - Evolutionary Spent Fuel Racks

Designed by Orano TN, NuStor™ racks are designed to be the most economical and versatile racks available, based on ease of fabrication, simplicity of installation, and availability of materials.

NuStor™ racks have been qualified for the most severe (bounding spectra) seismic conditions for any fuel pool. In addition NuStor™ racks meet or exceed all regulatory and operational requirements.





Orano TN has a long history of providing a multi-disciplined approach to customers' emergent needs.

Decommissioning & Dismantling

- Cleanup and closure
- D&D waste management
- Facility characterization
- Waste retrieval and packaging
- Final shutdown, dismantling, and status surveys

Waste Treatment and Retrieval

- Waste retrieval
- Characterization for disposition
- Processing, reduction, and treatment

Equipment, System Design and Supply

- New and Used Fuel handling systems
- Remote maintenance
- Advanced reactor development

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The Battelle Energy Alliance research reactor cask was designed, licensed, and fabricated by Orano TN.

Nuclear Packaging and Transport

- Design, licensing and fabrication for packaging and transportation
- Storage, transportation, and disposal of radioactive materials
- Technology proficiencies:
 - Design/structural: SolidWorks, LS-DYNA-3D, ANSYS, Specialty Drop Analysis Codes
 - Thermal: SINDA/FLUENT
 - Shielding: MCNP5
 - Criticality: MCNP5, KENO V.a

Facilities and Operations

- Environmental safety and health (ES&H)
- Nuclear and facility safety
- Criticality safety
- Reviews and assessments
- Quality assurance (including NQA-1)
- NRC licensing
- Safeguards and security

Radiation Protection

- Radiological control technicians
- Radiological engineering
- Health physics
- Dose assessments
- Radiation protection programs