



Orano's Enhanced U.S. Manufacturing Facility Doubles Production of NUHOMS Dry Storage Canisters for Used Nuclear Fuel

Significant two-year investment achieved output goal, moved all fabrication onshore to U.S. facilities, and strengthened quality performance.

BETHESDA, Md., January 15, 2021 – Orano recently completed a consolidation and implementation process at its flagship facility in Kernersville, NC, with significant results for the enhanced manufacturing of its NUHOMS® canisters for used nuclear fuel dry storage.

In 2018, Orano's strategic decision to in-source all of its heavy manufacturing led to the establishment of its new TN Fabrication facility in Kernersville. During 2019-2020, Orano consolidated all NUHOMS canister fabrication for U.S. customers to this single site, while maintaining its global supply chain for surge resources, and upgraded the domestic production processes.

"We doubled our throughput in 2020 compared to 2019," said Jean-Luc Palayer, Orano NPS Chief Operating Officer in the U.S., "while maintaining a highly motivated and performing labor force, and made the process more repeatable and reliable. This is a major milestone for us, our customers, and U.S. used fuel management."

During 2020, Orano completed and delivered all dry storage systems in customer contracts for last year—double the production of 2019—working at two-thirds of the facility's capacity. With the ongoing Lean continuous improvements and additional work shifts, the facility has the capacity to double, again, 2020's production.

The TNF facility has been specifically tuned to manufacture Orano's latest and most advanced dry fuel storage system: NUHOMS EOS™. The EOS (Extended Optimized Storage) system consists of a large-diameter stainless steel canister with customizable length, an internal metal alloy "egg-crate" basket to hold up to 37 PWR or 89 BWR rectangular used fuel assemblies, and coated carbon steel shield plugs.

In tandem with implementing the facility's new manufacturing capabilities, Orano's EOS engineers created an interlocking basket design that eliminated all welds from the basket fabrication process. With this innovation, EOS basket production is four-times faster than legacy product rates, significantly improving the overall manufacturing line.

The teams' quality performance and delivery also achieved continued improvement during this implementation period. Orano's U.S. customers experienced the benefits of our flexible domestic supply chain that met all of its 2020 on-time commitments.

Orano's advanced EOS technology is licensed by the NRC for used fuel storage heat loads of up to 50 kW per canister, the highest in the industry, and is the only high-capacity system in the U.S. market that has loaded customer used fuel close to this level.

These EOS system capabilities allow reactor owners to transfer hotter fuel assemblies and fuel cooled for less time from a reactor's wet storage pool into secure dry storage. This benefits operating nuclear facilities by simplifying the management of the pools and continuously reducing the wet-stored inventory of high heat and short-cooled fuel assemblies.

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The benefit is even greater for shutdown reactor sites. The EOS system allows a shutdown site to accelerate the transfer of used fuel from the pool to a dry storage facility, enabling the site to shorten its transition period and accelerate regulatory updates to the facility's emergency response plan—both actions significantly reducing costs.

Along with the TNF canister facility, the large concrete EOS Horizontal Storage Modules for storing the canisters are also manufactured in North Carolina at Orano's precast concrete facility in Moyock. These modules are engineered to provide maximum physical protection from external events, facilitate the highest heat load dissipation capability at 50kW, and ensure the lowest radiation dose—representing nearly half the dose rate of a vertical module system.

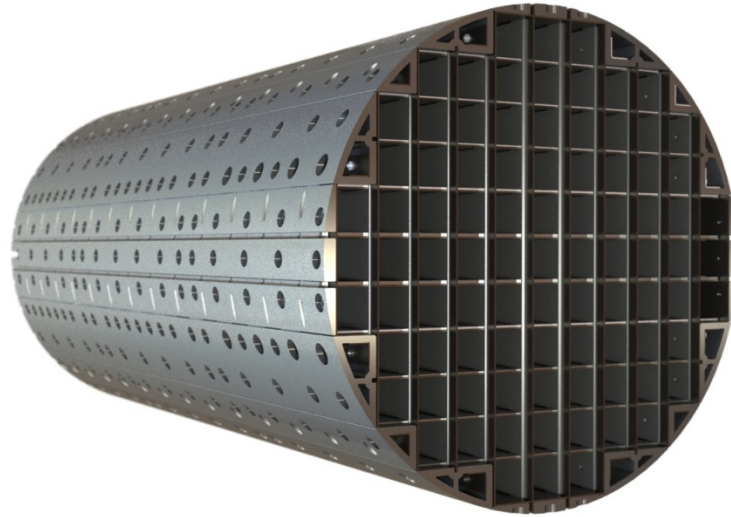
[Learn more](#) about Orano's EOS dry storage system for used nuclear fuel.

Image: A new set of Orano's 61BTH and advanced design EOS canisters being prepared for basket insertion at its TN Fabrication facility in Kernersville, NC.





Image: Orano EOS canister basket



About Orano: **Orano NPS**, a business subsidiary of Orano and previously known as Orano TN, has more than 55 years of experience providing nuclear packaging and transportation solutions for customers worldwide. Globally, Orano conducts more than 5,000 transports of used nuclear fuel and radioactive material packages, while meeting the highest international security requirements. **Orano USA**, a regional subsidiary of Orano, is a leading supplier of nuclear fuel materials, used fuel management, decommissioning, decontamination, and radwaste treatment solutions to U.S. commercial and federal customers. Orano USA, through its subsidiary Orano Med in Texas, is developing cancer treatments using targeted radio-immunotherapy, with its first drug currently in FDA-authorized clinical trials. Orano USA, 4747 Bethesda Ave., Suite 1001, Bethesda, Maryland, 20814. <https://www.orano.group/usa>, [@Orano_usa](#)

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