

# NorthStar completes construction, equipment installation at Beloit facility

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NorthStar Medical Radioisotopes has finished construction and equipment installation at its Beloit production facility, federal officials announced.

In a release yesterday, the National Nuclear Security Administration said this facility will “significantly increase domestic production capability” for a widely used medical isotope called molybdenum-99 once it’s approved by regulators. Mo-99 is used to produce technetium-99m, which is used in more than 40,000 diagnostic procedures in the United States every day, and is considered a staple for nuclear medicine.

The agency, which has provided \$109 million in cost-shared cooperative agreements to NorthStar since 2012, aims to support U.S. production of Mo-99 without the need for highly enriched uranium. Its goal is to “reduce the risk of nuclear proliferation and terrorism,” as this form of uranium has historically been produced for military applications among other uses.

According to the NNSA, NorthStar in 2018 became the first U.S. company in nearly three decades to produce Mo-99 domestically without the use of highly enriched uranium. That work was conducted at the University of Missouri Research Reactor.

Now, the company can currently produce enough of the isotope to meet 20 percent of the country’s demand, the release shows. Once the newly finished site is licensed for operation, the agency says NorthStar will be able to meet 40 percent of U.S. demand — “a significant increase from current levels.”

The NNSA says the company expects to complete “start-up and regulatory submissions” before the end of 2023. NorthStar says it will work with the FDA, state Department of Health Services and local officials to get the licenses and approval needed to operate the facility.

Once it comes online, NorthStar will have the first facility in the world that's producing commercial-scale Mo-99 using machines called electron accelerators, according to the agency. The installation process also included processing and packaging equipment for distributing the Mo-99 to certain pharmacies and hospitals.

In an emailed statement yesterday, a company spokesperson said NorthStar's technology "provides an environmentally preferable solution for Mo-99 supply because it is non-uranium based and does not create the long-lived radioactive waste streams associated with enriched uranium-based production methods."

See the release:

<https://www.wisbusiness.com/2022/national-nuclear-security-administration-nnsa-partner-northstar-medical-radioisotopes-completes-construction-and-equipment-installation-for-new-molybdenum-99-production-facility/>

See a recent story on the company:

<https://www.wisbusiness.com/2022/northstar-announces-new-contract-development-and-manufacturing-business-unit/>

*-By Alex Moe*