

Orano finalizes the dismantling of the core of the American Vermont Yankee reactor

Paris, 13th December 2022

In less than four years, the Orano group has completed the cutting up and packaging of the vessel and internal components of the boiling water reactor at the Vermont Yankee nuclear energy facility (State of Vermont, northeastern United States).

These operations, started in early 2019 after two years of preparatory studies, are part of a contract signed in 2017 with the NorthStar group, which is the global leader in dismantling and demolition of industrial facilities. As the site owner, NorthStar is performing the accelerated decommissioning of the facility with expected completion in 2027.

For the irradiated reactor core, segmentation was carried out remotely underwater for the reactor pressure vessel's internal equipment and with similar equipment in the drained reactor vessel itself to ensure the highest level of safety. Orano used remote-controlled tools designed specifically for dismantling and which have proven their effectiveness in several projects, particularly in Germany.

The reactor pressure vessel, nearly 20 meters high and weighing several hundred tons, is the largest metal component of a boiling water reactor. It contains the internal equipment, the role of which is to control the chain reaction and to ensure the production of steam, ultimately enabling the generation of low-carbon electricity on the network.

Orano also packaged and transported the waste from the dismantling operations to a dedicated storage site, located in the West Texas region (State of Texas).

Over the past 30 years, Orano's 2,000 employees who specialize in complex dismantling sites have taken part in more than 160 dismantling projects in different countries. In particular, they have carried out the dismantling of a quarter of the so-called "pressurized water" or "boiling water" reactors in the world. In the United States, Orano is also supporting NorthStar in the dismantling of the pressurized water reactor at the Crystal River 3 nuclear power plant in Florida and management of its used fuel, while in Germany the Group is dismantling the cores of six nuclear reactors.

Alain Vandercruyssen, Senior Executive Vice President in charge of Orano's Decommissioning and Services activities, said: *"The completion of this project confirms the major role that Orano plays in the global dismantling market, particularly of nuclear reactor cores. Our added value is based on the proven know-how of our field teams, the result of expertise acquired on complex sites and in several countries, particularly in the United States, France and Germany."*

About Orano

As a recognized international operator in the field of nuclear materials, Orano delivers solutions to address present and future global energy and health challenges. Its expertise and mastery of cutting-edge technologies enable Orano to offer its customers high value-added products and services throughout the entire fuel cycle. Every day, the Orano group's 17,000 employees draw on their skills, unwavering dedication to safety and constant quest for innovation, with the commitment to develop know-how in the transformation and control of nuclear materials, for the climate and for a healthy and resource-efficient world, now and tomorrow.

Orano, giving nuclear energy its full value.

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About NorthStar

NorthStar Group Services is the largest demolition company in the world and provides comprehensive environmental assessments, deconstruction and demolition, nuclear decommissioning, emergency response and asset recovery management.