

Assembly of Reactor Vessel for Russia's universal nuclear icebreaker begins

- A Monitor Desk Report

Date: 13 March, 2025



Assembly of the RITM-200 reactor vessel for Russia's nuclear icebreaker Leningrad has begun. Leningrad is the fifth nuclear icebreaker under the Project 22220 that will operate on the Northern Sea Route. The Leningrad nuclear icebreaker was laid down in January 2024.

Maxim Tyukavkin, Deputy Head of Rosatom's Mechanical Engineering Division said, "The Mechanical Engineering Division of Rosatom has launched the mass production of RITM-200 reactor units. This is yet another impressive demonstration of the absolute leadership of our domestic industry. Our successful history of manufacturing and operating the cutting-edge RITM reactor units provides a solid basis for reaching the goals of the Northern Sea Route development and SMR technology promotion."

All nuclear icebreakers of Project 22220 are equipped with two RITM-200 reactor units with a thermal capacity of 175 MW each. It makes these icebreakers the most

powerful in the world, allowing them to break ice up to 3 meters thick and reach speeds of up to 22 knots.

As of today, 10 RITM-200 reactor units have already been manufactured for icebreakers of the 22220 projects. Another 8 RITM series reactor units are at various stages of manufacture. They are intended for both nuclear icebreakers and floating power units.

The Northern Sea Route (NSR) is the shortest shipping route connecting Western Eurasia with the Asia-Pacific region. The NSR administratively begins at the junction of the Barents and Kara Seas (Kara Gate Strait) and ends at the Bering Strait (Cape Dezhnev), spanning a distance of approximately 5,600 kilometers. Currently, there are six key seaports along the NSR in the Russian Arctic. A record 37.9 million tons of cargo were shipped, and 92 transit voyages were made in 2024.

The Russian Government has appointed Rosatom as the Northern Sea Route infrastructure operator. Rosatom is responsible for overseeing the implementation of the federal project "Development of the Northern Sea Route."