

## Rooppur NPP: Preparation completed for loading dummy fuel at unit-1

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The Refueling machine in the reactor compartment of Rooppur Nuclear Power Plant's first power unit is ready to load 163 dummy fuel assemblies. It was the final stage in preparation for loading dummy fuel assemblies into the reactor core, which is planned for the coming days.

The nuclear refueling machine is part of the transport and process equipment of the refueling system and is designed to load fresh nuclear fuel and extract spent nuclear fuel from the core. The equipment weighing more than 60 tons is located above the fuel pool and the reactor pit. It consists of a mechanical part (bridge, trolley, service area), a control, and a monitoring system. They are used to remotely control and visually monitor the process of refueling and installing nuclear fuel into the reactor.

"The refueling machine is one of the most important elements of the

safe operation of NPP. It must have high accuracy in dealing with fuel assemblies in nuclear reactors. The allowed limits of error for the refueling machine at a given coordinate are not more than 2 mm," said Denis Muzlov, Director of the Atomtechenergo Branch in Bangladesh.

Experts of Atomtechenergo were responsible for preparing the refueling machine. Atomtechenergo specializes in the commissioning of NPP, power generation, transmission, and distribution facilities and is part of the Electric Power Division of Rosatom, Russia.

With the technical and financial support from Russia, Bangladesh is implementing its first-ever nuclear power plant at Rooppur. The plant hosts two units each of 1,200MW capacity. The latest 3+ generation VVER 1200 reactors are being used at the plant. Rosatom Engineering Division is the General Contractor of the project.

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