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**Rosatom has started the implementation of fuel supply contract to India for the Kudankulam units 3 and 4**

*For the first time, operation of new VVER-1000 reactors will start in extended fuel cycle*

TVEL Fuel Company of Rosatom has started implementation of nuclear fuel supply contract for units 3 and 4 of the Kudankulam NPP. The contract embraces the entire lifetime of the power units from the starting loading of the reactor cores. Units 3 and 4 of the Kudankulam NPP of the Russian design, powered by VVER-1000 reactors, are under construction in South India.

During the operation of the power units 1 and 2 of the first stage of Kudankulam NPP, Russian and Indian specialists have accomplished a large amount of work to improve their efficiency by introducing advanced nuclear fuel and extended fuel cycles. Since 2022, Kudankulam NPP has been supplied with nuclear fuel of improved design TVS-2M. The new fuel ensures more reliable and cost-efficient operation of reactors due to its rigid skeleton, new-generation anti-debris filter and higher uranium mass. Its introduction also enabled it to increase the fuel cycle of the reactors from 12 to 18 months (i.e. the time of continuous operation of the reactor before shutdown for unloading irradiated fuel and loading fresh fuel). Operation in longer fuel cycles also improves the economic efficiency of NPPs: the power unit is shut down less often for fuel reloading and generates more energy during the year.

“The facilities of the second stage of the Kudankulam NPP will be the first VVER-1000 reactors in history to be launched in an extended 18-month fuel cycle. This is a result of our successful cooperation in recent years, as the efficient solutions which have been previously implemented at similar reactors in Russia and China were also introduced at the Kudankulam operational power units. Throughout the entire NPP life cycle, ROSATOM not only supplies nuclear fuel, but also provides engineering services, improving the efficiency of power units through new solutions for fuel and fuel cycle,” Natalia Nikipelova, President of TVEL Fuel Company, commented.

**For Reference:**

Kudankulam NPP in Tamil Nadu state in southern India involves the construction of 6 power units of VVER-1000 reactors with an installed capacity of 6000 MW. The first stage, consisting of power units No. 1 and No. 2, was commissioned in 2013 and 2017, respectively. Power units No. 3, 4 and No. 5, 6 are the second and third stages of the Kudankulam NPP. Currently, power units 3,4,5,6 are under construction.

The technical customer of the facility is Nuclear Power Corporation of India. The general designer and equipment supplier are the Engineering Division of Rosatom. The new power units of Kudankulam NPP meet the most up-to-date IAEA safety requirements.

TVEL Fuel Company of Rosatom (the Fuel division of the State Corporation Rosatom) includes enterprises for the manufacture of nuclear fuel, conversion and enrichment of uranium, production of gas centrifuges, as well as research and design organizations. Being the only exclusive of nuclear fuel for Russian nuclear power plants, TVEL provides fuel to a total of more than 70 power reactors in 15 countries, research reactors in nine countries of the world, as well as transport reactors of the Russian nuclear fleet. Every sixth power reactor in the world is powered by TVEL fuel.

Rosatom's fuel division is the world's largest producer of enriched uranium, as well as the leader of the global market for stable isotopes. The Fuel Division is actively developing new businesses in the field of chemistry, metallurgy, energy storage technologies, 3D printing, digital products, as well as decommissioning of nuclear facilities. Rosatom's industry integrators for additive technologies and power storage systems have been created in the Fuel Company TVEL circuit.