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NITROGEN DILUTION AND SUPPLY CONTROL SYSTEM

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Another step has been taken to the production of a new generation of nuclear fuel at the SC"SGChE. Employees of the fabrication and refabrication module of the pilot power complex began testing equipment for manufacturing SNOOP fuel.

Mixed uranium-plutonium nitride nuclear fuel (SNOOP fuel) is an experimental type of ceramic type of nuclear fuel in which the fissile material (a mixture of isotopes of uranium-235, uranium-238 and plutonium-239) is contained in the form of mononitride instead of uranium dioxide.

SNOOP fuel is considered more promising than MOX fuel due to its greater thermal conductivity, which can increase the efficiency of the reactor by increasing its fuel campaign by testing fuel rods to a burnout depth of up to 10%.

The first reactor powered by SNOOP fuel in 2029 should also be the BREST-OD-300 project in Seversk, which has been under development since 1999. Tests of SNOOP fuel began in 2023 at the reactor of the Beloyarsk BN-1200M NPP.