|  |  |  |
| --- | --- | --- |
|  | Rosatom digital  press office  <https://atommedia.online/en/> | **Announcement**  12.03.24 |

**Nuclear Fuel Cycle development in Two-Component Energy to be discussed at ATOMEXPO-2024**

*The discussion will explore the main trends in the development of modern nuclear fuel cycle in the context of current geopolitical challenges*

A round table on “Development of Nuclear Fuel Cycle (NTC) in Two-Component Energy: Current Challenges and Sustainable Solutions” will take place on March 25, at the 13th International Forum ATOMEXPO-2024.

The event will be attended by representatives of leading Russian and international companies (Rosatom, TENEX, TVEL Fuel Company of Rosatom etc.), scientific organizations, subject matter experts, public organizations from China, Hungary, Belarus and other countries. The session will be moderated by Alexander Bychkov, IAEA expert.

The discussion will focus on topical issues of technological and innovative development based on solutions offered by the global nuclear industry. Panelists from around the world, along with traditional issues of uranium mining, shortage of conversion and enrichment, improvement of fabrication and reliability of supplies, will discuss ways to increase the scale of spent nuclear fuel (SNF) processing, acceptable radioactive waste (RW) conditioning, specific issues of energy-grade plutonium management, etc.

The event will also include a discussion of the main trends in the development of modern NFC in the context of current geopolitical challenges as well as ways to solve priority tasks facing the main players in the NFC market through international cooperation.

The event will take place from 16:30 to 18:00 in hall No. 4 of the Main Media Center. There will be an online streaming service available [on the forum's website](https://2024.atomexpo.ru/) (in Russian and English).

**For reference:**

In the modern world, two-component nuclear energy is becoming more and more real today: fast reactors are being built in Russia, China, India; they are under development in France, Japan, Korea, and the USA. This poses new challenges to the NFC.

The Proryv (“Breakthrough” in Russian) Project implemented by the State Corporation Rosatom is aimed at achieving a new quality of nuclear energy, development, creation and industrial implementation of the closed nuclear fuel cycle (CNFC) based on fast reactors. Leading Russian scientists with the involvement of a number of industry institutes (IPPE named after A. I. Leypunsky, NIKIET JSC, Afrikantov OКВМ JSC, etc.) implement the project. As part of the Proryv, it is planned to create a nuclear energy system that includes nuclear power plants, production for regeneration (processing) and refabrication of nuclear fuel. A pilot demonstration energy complex (PDEC) is under construction on the territory of the Siberian Chemical Combine (town of Seversk, Tomsk region). It will include a power unit with a BREST-OD-300 type reactor with a lead coolant and a station plant, which includes a processing module (MP) for irradiated mixed uranium-plutonium (nitride) fuel and a fabrication/refabrication module (MFI) for the manufacture of startup fuel elements from offsite materials (and subsequently fuel elements from reprocessed spent nuclear fuel). The complex should demonstrate the stable operation of facilities that ensure the closed nuclear fuel cycle.

International Forum ATOMEXPO is one of the main congress and exhibition events of the global nuclear industry, organized with the support of the Rosatom State Corporation. The forum has been held annually since 2009. This is the largest business and exhibition platform where leading industry companies and leading experts discuss the challenges of developing nuclear technologies, strengthen partnerships and establish best practices. The forum format includes an exhibition and an extensive business program, the main topics of which are traditionally the development of nuclear energy as an environmentally friendly source of energy; human capital management; creation of nuclear energy infrastructure; energy financing and investment; development of non-power nuclear technologies, and many others. As part of the Forum, cooperation agreements are traditionally signed between Russian companies, and foreign partners.