

Program of the Industry Conference
«Closure of the Nuclear Fuel Cycle Based on Fast Neutron Reactors»
 (Tomsk, October 11-12, 2018)

Program of the Plenary Session 11 of October, 2018 (Conference hall, 2nd floor)	
09:30	Registration, welcome coffee
Strategic unit: ROSATOM paradigm and key reports	
10:00-10:30	Conference opening Welcome speech of Alexey Likhachev, Director General of ROSATOM Welcome speech of I.N.Shaturny, the Tomsk region Vice-governor in charge of industrial policy
Moderator: Eugene Adamov, Proryv Project Scientific Supervisor	
10:30-10:50	Vyacheslav Pershukov, Head of Proryv Project line-of-business – Special Representative of ROSATOM for International Scientific and Technical Projects “National Project “Proryv”: International Positioning and New Prospects”
10:50-11:05	Natalia Ilyina, Deputy director of the Innovations management unit, ROSATOM “Management of the complex research projects: modern methods and practice of it application in “Proryv” project”
11:05-11:25	Valeriy Rachkov, Research and Development Chief Scientific Officer of Proryv Project «Scientific and Technical Problems of CNFC in Two-Component Nuclear Power and it’s solution in the “Proryv” project»
11:25-11:45	Leonid Bolshov, Director at the Nuclear Safety Institute of the Russian Academy of Sciences, academician of RAS Alexey Ferapontov, Deputy Chairman of the Federal Environmental, Industrial & Nuclear Supervision Service of Russia (Rostekhnadzor) «Regulatory Framework of the New Technological Platform of Nuclear Power»
11:50-12:15	Ekaterina Solntseva, Digitalization Director of ROSATOM «The goals of digitalization of ROSATOM»
12:15	Coffee break (lobby, 2 nd floor)
The Issues of Implementation of “Proryv” Project: Key Technology Alternatives, Solutions, and Hallmark of Technology Excellence	
Moderator: Valeriy Rachkov, Research and Development Chief Scientific Officer of “Proryv” Project	
12:20-12:50	Eugene Muraviev, Head of Analytics Department, Innovative Technological Center of the «Proryv» Project «Two-Component Nuclear Power Optimization»
13:10-13:30	Pavel Alexeev, Director of Sciences of the Kurchatov Complex of Perspective Nuclear Energy, National Research Center «Kurchatov

*The final version of the program will be published on the website innov-rosatom.ru

	Institute» «Possible Scenarios for Transition to a CNFC»
13:30- 13:50	Andrey Gulevich, Deputy CEO, JSC «SSC RF – IPPE» «Role of Fast Sodium Reactors in Nuclear Fuel Cycle Closure of NPPs»
13:50- 14:10	Dmitriy Tolstoukhov, Chief Economist of the Proryv Project «Competitiveness of NPP Projects with Fast Reactors: Requirements and Implementation in «Proryv» Project»
14:10- 14:30	Andrey G. Glazov, Chief Designer of On-site Nuclear Fuel Cycle (NFC) «Equipment of Fuel Fabrication and Refabrication Complex Technological Lines. Basic Design Solutions»
14:30	Lunch (canteen, 1 st floor)
15:30- 15:50	Aleksandr Zherebtsov, Head of Department of Chief Technology Officer, Innovative Technological Center of the «Proryv» Project «Development of Conceptual Project CNFC Industrial Complex»
15:50- 16:10	A. Maksimov, Head of Department, Innovative Technological Center of the «Proryv» Project «Integrating Project and Information Model of PDEC»
16:10- 16:30	Leonid Bolshov, Director at the Nuclear Safety Institute of the Russian Academy of Sciences, academician of RAS «Codes of New Generation – State of the Art and Perspectives of the Future Development»
16:30	Coffee break (lobby 2 nd floor)
Moderator: Elena Solntseva, Digitalization Director of ROSATOM	
17:00- 17:20	Dmitry Bondarenko, Head of Department of IT-Environment and Information Support, Innovative Technological Center of the «Proryv» Project “Common Information Space of «Proryv» Project”
17:20- 17:40	Andrey Fedorovsky, Head of Mathematical Modeling Department, Innovative Technological Center of the «Proryv» Project «Development and Application of the Integrated Calculating Mathematical Model of PDEC»
17:40- 18:00	Nikolay Mantsevich, Head of Innovation Management, JSC Science and Innovations «Digital Platform of Scientific & Technical Capabilities»
18:20- 18:40	Questions and discussion. Summary of the first day
19:00	Dinner

Second day				
08:30	Coffee break (lobby, 2 nd floor)			
09:00-13:00	Work in sections			Tech tour to SKhK (PDEC) Groups 1&2
	Section 1 «Breakthrough. Team of the future» (Small hall, 4th floor)	Section 2 «Fast reactors» (Round table hall, 2nd floor)	Section 3 «Technology of fuel fabrication and SNF reprocessing» (Conference hall, 2nd floor)	
13:00	Lunch			
14:00-14:45	Plenary meeting. Reports on the results of section work. Proposals to the conference minutes			
14:45-15:00	Summary of the conference. Proposals to the minutes			
15:00	Tech tour to SKhK (PDEC) Groups 3&4			

Section 1
«Breakthrough. Team of the future»
(Small hall, 4th floor)

Tasks:

- The analysis of the current status of providing the project with young professionals (based on the pre-analytical phase prior to the conference);
- Analysis of the tools for the development of competencies for young professionals in the project (scientific schools, lift for thesis works, publication activity, participation in international conferences);
- Preparation of proposals (to the conference Memorandum) for the development of tools for training and development of scientific teams for the CNFC.

Moderators:

V.V. Artisuk, Pro-Rector of International Cooperation, Rosatom Technical Academy;
P.V. Sushkov, Head of Education Programs, «Science and Innovations» JSC.

08:30	Coffee break (lobby, 2nd floor)
09:00-09:15	Session opening Moderators: V.V. Artisuk, Pro-Rector of International Cooperation, Rosatom Technical Academy P.V. Sushkov, Head of Education Programs, «Science and Innovations» JSC
09:15-09:30	P.V. Sushkov, Head of Education Programs, «Science and Innovations» JSC «Assessment of human resources requirements for implementation of the tasks of BN CNFC»
09:30-10:15	The tasks of training qualified specialists in the relevant universities
09.30-09.45	A. Lavrukhin, Deputy Head of Chair «CNFC Technology», National Research Nuclear University MEPhI «Experience in Implementing an Educational Program Aimed at Training Personnel for the “Proryv” Project at National Research Nuclear University MEPhI»
09.45-10.00	V.A.Andreev, Head of the Center for Fast Energy, National Research Nuclear University MEPhI «Personnel Training for the Proryv project at Seversky Technological Institute of National Research Nuclear University MEPhI»
10:00-10:15	O. Dolmatov, Director of the Engineering School of Nuclear Technology, Tomsk State University «Approach to the Training of Young Specialists of the New Generation in Tomsk State University»
10:15-11:00	The environment to attract and develop young professionals. Benchmarking
10:15-10:30	Valentin Smirnov, Scientific Supervizor, NIITFA Scientific And Research Institute Of Technical Physics And Automation

	«Experience of the Project «Higher school of physics of ROSATOM» on Development of Scientific and Technical Competences in the Field of Experimental and Theoretical Physics»
10:30-10:45	M. Lipeckaya, Director of the Center for Strategic Development «School of key researchers of Tomsk region»
10:45-11:00	G. Tikhomirov, Deputy Director of Institute of Nuclear Physics and Technology National Research Nuclear University MEPhI «Experience of Projects on Attraction and Development of Young Professionals in International Scientific and Technological Programs»
11:00-11:20	Coffee break (lobby 2nd floor)
11:20-11:40	V.V. Artisuk, Pro-Rector of International Cooperation, Rosatom Technical Academy «Competence of Researchers in Ensuring Global Leadership of Russian Nuclear Technologies»
11:40-13:00	Session participants «Discussion of proposals for the development of training tools, recruitment and development of young professionals in the field of fast reactors CNFC»
13:00-14:00	Lunch (canteen, 1st floor)
Conference hall, 2 nd floor	
14:00-14:45	Plenary meeting. Reports on the results of section work. Proposals to the conference minutes
14:45-15:00	Summary of the conference. Proposals to the minutes
15:00	Tech tour to SKhK (PDEC) Groups 3&4

Section 2
Work program «Fast reactors»
Round hall II floor

Tasks:

- Presentation of technical solutions and technologies in the field of fast reactors.
- Discussion on technological alternatives, solutions, and hallmark of technology excellence

Moderators:

Vadim Lemekhov, Chief Designer of the Proryv Project;
 Yuriy Khomyakov, Head of Division of Research and Development Chief Scientific Officer, Innovative Technological Center of the «Proryv» Project.

08:30-09:00	Coffee break (lobby, 2nd floor)
09:00-09:30	Vadim Lemekhov, Chief Designer of the Proryv Project «The Power Unit with Reactor BREST-OD-300»
09:30-10:00	V. Ershov, Chief Expert on Designing of NPP with BN reactors, ATOMPROEKT JSC «The Power Unit with Reactor BN-1200M»
10:00-10:20	Oleg Komlev, First Deputy General Director for Production, AKME-engineering JSC «Small and Medium power NPPs with SVBR-100»
10:20-10:40	Vladimir D. Risovany, Deputy CEO JSC «Science and Innovations» «Radioisotopes in Fast Neutron Nuclear Reactors»
10:40-11:00	Mikhail Mikhaylov, First Deputy Director – Designer General, NIKIET, JSC» «I&C for NPP on the basis of home-grown technology»
11:00	Coffee break (lobby, 2nd floor)
11:20-11:40	Elena A. Rodina, Senior Researcher, Innovative Technological Center of the «Proryv» Project «Justification and Optimization of Fast Reactor Transition to Closed Nuclear Fuel Cycle Operation»
11:40-12:00	Alexander Orlov, Adviser to Research and Development Chief Scientific Officer of Proryv Project, Innovative Technological Center of the «Proryv» Project «Present state of the development of the components of heavy coolant quality control and sustaining system for the BREST-OD-300 Reactor Unit»
12:00-12:20	Vladimir Risovany, Deputy general director, JSC “Science and Innovations” «New Generation of Control Rods for a Fast Neutrons Nuclear Reactors»
12:20-	Youry Khomyakov, Head of the R&D Scientific Supervisor’s

12:40	Department at the Innovation & Technology Center of the “Propyv” project “R&D program for CNFC of BN-800”
13:00-14:00	Lunch (canteen, 1st floor)
Conference hall, 2 nd floor	
14:00-14:45	Plenary meeting. Reports on the results of section work. Proposals to the conference minutes
14:45-15:00	Summary of the conference. Proposals to the minutes
15:00	Tech tour to SKhK (PDEC)

**Section 3
Program
of Section «Technology of fuel fabrication and SNF reprocessing»
(Conference hall 2nd floor)**

Tasks:

Presentation of technologies for processing of SNF by participant organizations of «Proryv» Project;

Presentation of technologies of fuel fabrication and SNF processing for use in «Proryv» Project;

Discussion of information exchange format between Scientific and Engineering Centre for Nuclear and Radiation Safety and “Proryv” Project on similar technological processes/solutions.

Moderators:

Mikhail Skupov, Head of the Responsibility center of the united project «Design of the nuclear fuel element (NFE), the nuclear fuel assembly (NFA) with Mixed Nitride Uranium-Plutonium fuel (MNUP-fuel), it's technologies and production equipment»;

A. Chaban, Chief Specialist, Department of Management of Federal Programs and Innovative Development of the Innovation Management Unit, ROSATOM

Andrey Shadrin, Scientific Coordinator - Chief Technology Officer of the united project «Design of basic technologies for processing spent nuclear fuel (SNF) and radioactive waste management».

08:30-09:00	Coffee break (lobby, 2nd floor)
09:00-09:20	Mikhail Skupov, Head of the Responsibility center of the united project «Design of the nuclear fuel element (NFE), the nuclear fuel assembly (NFA) with Mixed Nitride Uranium-Plutonium fuel (MNUP-fuel), it's technologies and production equipment» «Dense Fuel and a MNUP Selection»
09:20-09:40	Petr Gavrilov, CEO, Mining and Chemical Combine (GKhK) «MOX-fuel Fabrication at Mining and Chemical Combine (GKhK)»
09.40-10.00	Mikhail Skupov, Head of the Responsibility center of the united project «Design of the nuclear fuel element (NFE), the nuclear fuel assembly (NFA) with Mixed Nitride Uranium-Plutonium fuel (MNUP-fuel) and technologies with equipment for production» «MNUP Fuel fabrication and Refabrication Technology with the Prospect of MA Involvement in the Fuel Cycle»
10:00-10:20	A.A.Nikitina, leading expert, JSC VNIINM « Structural Materials for Fast Neutron Reactors with Sodium and Lead Coolant»
10:20-	Konstantin Ivanov, Head of the Project Office «SNF Management

10:40	System Formation», ROSATOM «NFC Remix: options, time frames and technical and economic assessment of the effectiveness»
10:40-11:00	Yu.M. Golovchenko, Chief researcher – Expert of the scientific support group, JSC «SSC RIAR» «Technologies of production, use and processing of dense nuclear fuel»
11:00-11:20	Coffee break (lobby 2nd floor)
11:20-11:40	Yu. Zaykov, Director of Sciences of the Project «SNF Reprocessing Pyrochemical Technologies Development at Reprocessing Module of PDEC» «R&D on Development of Pyrochemical Processing Technology of MNUP fuel»
11.40-12.00	Andrey Shadrin, Scientific Coordinator - Chief Technology Officer of the united project «Design of basic technologies for processing spent nuclear fuel (SNF) and radioactive waste management» «Technologies of hydrometallurgical and combined processing of MNUP and MOX SNF FR»
12:00-12:20	A. Gavrikov, Deputy Director, Joint Institute for High Temperatures of the Russian Academy of Sciences «Engineering and physical fundamentals of plasma processing technology of MNUP and MOX SNF FR»
12:20-12:40	Vladimir Kashheev, Scientific Leader of the Radioactive Waste Management Project «Scope optimization of Radioactive Waste from SNF management. Fractionation options»
12.40-13.00	Olga V. Shmidt, Head of Research&Development Group and Modeling of Technological Process, Innovative Technological Center of the «Proryv» Project «Technological Codes for CNFC»
13:00-14:00	Lunch (canteen, 1st floor)
Conference hall, 2 nd floor	
14:00-14:45	Plenary meeting. Reports on the results of section work. Proposals to the conference minutes
14:45-15:00	Summary of the conference. Proposals to the minutes
15:00	Tech tour to SKhK (PDEC)

**Program of technical tour to Seversk
October 12, 2018**

Time	Seversk, SKhK				
	Group 1 25 persons			Group 2 25 persons	
08:45	Group gathering near Tomsk Region Administration building		08:45	Group gathering near Tomsk Region Administration building	
09:00-10:00	Transfer to Seversk, PDEK		09:00-10:00	Transfer to Seversk, PDEK	
10:00-10:20	Arrival to the site Enter the SKhK		10:00-10:20	Arrival to the site Enter the SKhK	
10:20-10:30	Meeting the participants, instruction		10:20-10:30	Meeting the participants, instruction	
10:30-11:15	Excursion at the PDEK observation site		10:30-11:15	Excursion at the PDEK observation site	
11:15-11:30	Transfer to the History Museum of the SKhK		11:15-11:30	Transfer to the History Museum of the SKhK	
11:30-12:15	Excursion at the Museum of the SKhK		11:30-12:15	Excursion at the Museum of the SKhK	
12:15-13:00	Transfer to Tomsk Region Administration		12:15-13:00	Transfer to Tomsk Region Administration	
13:00	Lunch at Tomsk Region Administration				
	Group 3 25 persons			Group 4 25 persons	
15:00	Group gathering near Tomsk Region Administration building		15:00	Group gathering near Tomsk Region Administration building	
15:15-16:15	Transfer to Seversk, PDEK		15:15-16:15	Transfer to Seversk, PDEK	
16:15-16:30	Arrival to the site Enter the SKhK		16:15-16:30	Arrival to the site Enter the SKhK	
16:30-16:45	Meeting the participants, instruction		16:30-16:45	Meeting the participants, instruction	
16:45-17:15	Excursion at the PDEK observation site		16:45-17:15	Excursion at the PDEK observation site	
17:15-17:30	Transfer to the History Museum of the SKhK		17:15-17:30	Transfer to the History Museum of the SKhK	
17:30-18:00	Excursion at the Museum of the SKhK		17:30-18:00	Excursion at the Museum of the SKhK	
18:00	Transfer to Forum Hotel		18:00	Transfer to Forum Hotel	