



# MNTK • 2018

Eleventh International Scientific and Technical Conference

**SAFETY, EFFICIENCY AND ECONOMICS  
OF NUCLEAR POWER INDUSTRY**

# CONFERENCE PROGRAMME

May 23–24, 2018



**ROSENERGOATOM**

ELECTRIC POWER DIVISION OF ROSATOM

Moscow

Joint Stock Company  
«Russian concern for production of electric and  
thermal energy at nuclear power plants»  
(Rosenergoatom Concern JSC)

ELEVENTH INTERNATIONAL  
SCIENTIFIC AND TECHNICAL CONFERENCE

**“SAFETY, EFFICIENCY AND ECONOMICS  
OF NUCLEAR POWER INDUSTRY”**  
(MNTK-2018)

# **CONFERENCE PROGRAMME**

Moscow, May 23–24, 2018

## OVERALL SCHEDULE AND TIMING

### May 23<sup>rd</sup> (1<sup>st</sup> Day)

Participants registration ( <i>Conference hall lobby</i> ) . . . . .	c 08 <sup>00</sup> до 09 <sup>00</sup>
Opening ( <i>Conference hall</i> ) . . . . .	c 09 <sup>00</sup> до 09 <sup>20</sup>
Plenary session ( <i>Conference hall</i> ) . . . . .	c 09 <sup>20</sup> до 12 <sup>00</sup>
Section session ( <i>the allocated rooms</i> ) . . . . .	c 14 <sup>00</sup> до 18 <sup>00</sup>
Exhibition of nuclear enterprises & organizations ( <i>Building 2 lobby</i> ) . . . . .	c 14 <sup>00</sup> до 18 <sup>00</sup>
Official dinner . . . . .	c 18 <sup>30</sup> до 21 <sup>00</sup>

### May 24<sup>th</sup> (2<sup>nd</sup> Day)

Section sessions, cont'd ( <i>the allocated rooms</i> ) . . . . .	c 09 <sup>00</sup> до 14 <sup>00</sup>
Exhibition of nuclear enterprises & organizations, cont'd ( <i>Building 2 lobby</i> ) . . . . .	c 09 <sup>00</sup> до 14 <sup>00</sup>
Plenary session – Summing up and Closing ( <i>Conference hall</i> ) . . . . .	c 14 <sup>30</sup> до 15 <sup>30</sup>

### *Timing*

Presentations at the plenary session: 25 to 30 min

Presentations at the section sessions: 15 to 30 min including Q&A

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# CONFERENCE TOPICS

## Plenary session

### “The Role and Place of the Operating Organization in Implementation of Russian Nuclear Power Development Strategy”

Keynote report by *Petrov A.Yu.*,  
Director General of Rosenergoatom Concern JSC

#### Panel discussion on

«Implementation of Russian Nuclear Power Development Strategy»

Facilitator: *Asmolov V.G.*, State Corporation Rosatom

Panelists:

*Shutikov A.V.*, Rosenergoatom Concern JSC

*Adamov E.O.*, RDIPE JSC

*Gulevich A.V.*, SSC RF IPPE

*Zverev D.L.*, OKBM Afrikantov JSC

*Konstantinov N.I.*, Rosenergoatom Concern JSC

*Piminov V.A.*, EDO Hidropress JSC

## SECTIONS

### SECTION 1. Safe and effective operation of NPPs

**Chairman:** *Dementiev Andrey A.* – Deputy Director General – Director for Production & NPP Operation, Rosenergoatom Concern JSC.

#### 1.1. Operation, maintenance and repair of NPPs with VVER, RBMK, BN and EGP-6 reactors

**Chairman:** *Chernikov Oleg G.* – First Deputy Director for Production & NPP Operation – Director of Department for NPP Operation and Nuclear Fuel Management, Rosenergoatom Concern JSC.

**Co-Chairman:** *Berkovich Vadim Ya.* – Deputy Designer General, EDO Hidropress.

### **1.1.1. Operation of NPPs with VVER reactors**

**Chairman:** *Aydemirov Oleg A.* – Head of Office for VVER Reactors Operation, Rosenergoatom Concern JSC.

**Co-Chairman:** *Mikhailchuk Alexander V.* – Deputy Director General, VNIIAES JSC.

### **1.1.2. Operation of NPPs with RBMK, BN and EGP-6 reactors**

**Chairman:** *Bystrikov Alexander A.* – Head of Office for Channel & Fast Reactors Operation, Rosenergoatom Concern JSC.

**Co-Chairman:** *Druzhinin Vladimir E.* – Head of department, VNIIAES JSC.

### **1.1.3. Maintenance & repair and installation of NPP equipment**

**Chairman:** *Krupsky Alexander G.* – Deputy Director for Production & NPP Operation – Director of Department for Plant Maintenance, Repair and Installation, Rosenergoatom Concern JSC.

**Co-Chairman:** *Chernikov Alexey A.* – First Deputy Director General – Chief Engineer, Atomenergoremont JSC.

## **1.2. Engineering support to NPP operations**

**Chairman:** *Sultanov Ramis M.* – Deputy Director of Department for Engineering Support, Rosenergoatom Concern JSC.

**Co-Chairman:** *Potapov Vladimir V.* – Deputy Director of the VNIIAES-SES – Director of Department for NPP Life Management, VNIIAES JSC.

### **1.2.1. Equipment life management and nuclear power units lifetime extension**

**Chairmen:** *Berezanin Anatoly A.* – chief technologist, Department for Engineering Support Rosenergoatom Concern JSC;

*Povarov Alexander V.* – Deputy Director of Department for Production Planning, Upgrading and Lifetime Extension, Rosenergoatom Concern JSC.

**Co-Chairman:** *Potapov Vladimir V.* – Deputy Director of the VNIIAES-SES - Director of Department for NPP Life Management, VNIIAES JSC.

### **1.2.2. Enhancement of electric equipment reliability**

**Chairman:** *Prorokov Oleg A.* – chief technologist, Department for Engineering Support, Rosenergoatom Concern JSC;

**Co-Chairman:** *Kononenko Alexander I.* – Head, Office for Diagnostics & Testing, NIIP JSC.

### **1.2.3. Material science and metal inspections**

**Chairman:** *Lovchev Vladimir N.* – Deputy Director of Department – Head of Material Science Division, Department for Engineering Support, Rosenergoatom Concern JSC.

**Co-Chairman:** *Korneev Alexey E.* – Head, division for metal physical & chemical testing SSC RF CNIITMash.

### **1.2.4. RW management, nuclear power units decommissioning including preparation to decommissioning**

**Chairman:** *Stakhiv Mikhail R.* – Deputy Director of Department – Head of division for SNF, RW management and decommission preparation, Department for Engineering Support, Rosenergoatom Concern JSC.

**Co-Chairperson:** *Safronova Natalia N.* – Head of division for NPP decommissioning management, Rosenergoatom Concern JSC.

### 1.2.5. SNF management

**Chairman:** *Lobkov Yury M.* – chief technologist, division for SNF, RW management and decommission preparation, Department for Engineering Support, Rosenergoatom Concern JSC.

**Co-Chairperson:** *Filippova Yulia Yu.* – Deputy Head of Department for RW & SNF management, VNIIAES JSC.

### 1.2.6. Fire Safety

**Chairman:** *Nikiforov Victor V.* – Deputy Director – Head of Fire Safety Service, Technology Affiliate of Rosenergoatom Concern JSC.

**Co-Chairman:** *Aleshkov Mikhail V.* – Deputy Head for Scientific Affairs, the State Firefighting Service of the EMERCOM of Russia.

### 1.3. Radiation safety, NPP ecology, emergency preparedness

**Chairman:** *Khlebtsevich Vladimir E.* – Deputy Director for Production & NPP Operation – Director of Department for Emergency Preparedness and Radiation Protection, Rosenergoatom Concern JSC.

**Co-Chairman:** *Zhurbenko Alexander V.* – Deputy Director of VVER Division, NSC Kurchatov Institute.

#### 1.3.1. Radiation safety at NPPs

**Chairman:** *Dolzhenkov Igor* – Deputy Director of Department for Emergency Preparedness and Radiation Protection, Rosenergoatom Concern JSC.

**Co-Chairman:** *Kut'kov Vladimir A.* – Leading scientific researcher, NSC Kurchatov Institute.

#### 1.3.2. NPP ecology

**Chairman:** *Pechkurov Andrey V.* – chief technologist, Department for Emergency Preparedness and Radiation Protection, Rosenergoatom Concern JSC.

**Co-Chairperson:** *Plyamina Olga V.* – Director, Scientific & Research Institute of Ecology.

#### 1.3.3. Emergency preparedness at NPPs

**Chairman:** *Markov Alexander P.* – Deputy Director of Department for Emergency Preparedness and Radiation Protection, Rosenergoatom Concern JSC.

**Co-Chairman:** *Kosov Alexey D.* – head of division, VNIIAES JSC

## SECTION 2. NUCLEAR POWER DEVELOPMENT

**Chairman:** *Bezzubtsev Valery S.* – Director for Technological Development, Rosenergoatom Concern JSC;

**Co-Chairmen:** *Ponomarev-Stepnoy Nikolay N.* – Scientific Advisor to Director General, Rosenergoatom Concern JSC;

*Davidenko Nikolay N.* – Deputy Director General for Technological Development, VNIIAES JSC.

### 2.1. Key areas of advanced technological development of nuclear power

**Chairman:** *Bezzubtsev Valery S.* – Director for Technological Development, Rosenergoatom Concern JSC.

**Co-Chairmen:** *Kornienko Konstantin A.* – Head of Office for Innovative Development, Rosenergoatom Concern JSC;

*Bakanov Mikhail V.* – Head of the “New Platform” Project Office, Rosenergoatom Concern JSC.



## **2.2. Construction of new nuclear power units**

**Chairman:** *Barinov Alexander V.* – Deputy Director for Designing and Licensing Activities, Capital Projects Implementation Affiliate, Rosenergoatom Concern JSC.

**Co-Chairman:** *Baryshev Alexander V.* – Deputy Director of Department, Capital Projects Implementation Affiliate, Rosenergoatom Concern JSC.

## **2.3. Commissioning of new nuclear power plants**

**Chairman:** *Katsman Alexander M.* – Deputy Director for Production & NPP Operation – Director of Department for Operational Readiness of New Build, Rosenergoatom Concern JSC.

### **2.3.1. Nuclear power units commissioning experience**

**Co-Chairman:** *Deriy Vladimir P.* – Deputy Director General – Chief Engineer, Atomtechenergo JSC.

### **2.3.2. Enhancement of CPCS reliability and cyber-security**

**Co-Chairman:** *Antipov Stanislav I.* – First Deputy Director for Technical Matters, RASU JSC.

## **SECTION 3. NUCLEAR POWER ECONOMICS AND INFORMATION TECHNOLOGIES**

**Chairman:** *Migalin Sergey A.* – Deputy Director General – Director for Economy and Finances, Rosenergoatom Concern JSC.

**Co-Chairperson:** *Demidova Lyudmila N.* – Director of Department for Economy and Controlling, Rosenergoatom Concern JSC.

### **3.1. Nuclear power economics**

**Chairman:** *Migalin Sergey A.* – Deputy Director General – Director for Economy and Finances, Rosenergoatom Concern JSC.

**Co-Chairman:** *Demidova Lyudmila N.* – Director of Department for Economy and Controlling, Rosenergoatom Concern JSC.

### **3.2. Information technologies for the nuclear power**

**Chairman:** *Shalnov Oleg E.* – Director of Department for IT Projects Management and Integration, Rosenergoatom Concern JSC.

**Co-Chairman:** *Kirikov Anton V.* – Deputy Director of IT Department, State Corporation “Rosatom”.

## **SECTION 4. INTERNATIONAL COOPERATION FOR NUCLEAR SAFETY**

**Chairman:** *Konstantinov Nikita I.* – Deputy Director General – Director for Business Development, Rosenergoatom Concern JSC.

**Co-Chairperson:** *Ivanova Nina Yu.* – Head of division for International Scientific & Technical Cooperation, Rosenergoatom Concern JSC.

## **SECTION 5. HUMAN RESOURCE FOR THE NUCLEAR POWER**

**Chairman:** *Gudin Sergey A.* – Director of Department for Staff Management, Labour Management and Personal Motivation, Rosenergoatom Concern JSC.

**Co-Chairman:** *Aksinenko Sergey P.* – Director of Department for Engineering Support, VNIIAES JSC.

### **5.1. Human resource for the nuclear power**

**Chairman:** *Gudin Sergey A.* – Director of Department for Staff Management, Labour Management and Personal Motivation, Rosenergoatom Concern JSC.

**Co-Chairman:** *Aksinenko Sergey P.* – Director of Department, VNIIAES JSC.

### **5.2. Use of veterans' experience and expertise. Tutorship**

**Chairman:** *Markelov Nikolay I.* – Deputy head for organizational matters, Executive Committee of the Interregional Nonprofit Organization for Rosenergoatom Veterans.

**Co-Chairman:** *Simagin Andrey B.* – chief expert, the Interregional Nonprofit Organization for Rosenergoatom Veterans.

### **5.3. Transfer of international experience and traditions to the youth**

**Chairman:** *Saraev Yury P.* – Vice-Chairman, the International Union of Veterans of Nuclear Power Industry.

**Co-Chairman:** *Kuleshov Igor I.* – chief expert, the International Union of Veterans of Nuclear Power Industry.

### **5.4. Young nuclear engineers and safe operation of NPPs**

**Chairman:** *Kushnarev Sergey V.* – Vice-President, Nuclear Society of Russia.

**Co-Chairman:** *Kirichenko Anatoly M.* – First Deputy Director, WANO Moscow Center.

## May 23<sup>rd</sup> Wednesday

08<sup>00</sup>–09<sup>00</sup> Participants registration (VNIIAES Conference hall lobby)

**Chairman: Shutikov A.V.**

09<sup>00</sup>–09<sup>20</sup> **Conference opening.** *Shutikov A.V.*

Welcome address from the State Corporation Rosatom. *Lokshin A.M.*

Welcome address from Rosenergoatom Concern JSC. *Petrov A.Yu.*

Procedural matters. *Shutikov A.V.*

### PLENARY SESSION

09<sup>20</sup>–09<sup>50</sup> The Role and Place of the Operating Organization in Implementation of Nuclear Power Development Strategy in Russia  
*Petrov A.Yu.*, Rosenergoatom Concern JSC

09<sup>45</sup>–12<sup>00</sup> **Panel discussion** on Implementation of Russian Nuclear Power Development Strategy

Facilitator: *Asmolov V.G.*, State Corporation Rosatom

#### **Panelists**

*Shutikov A.V.*, *Rosenergoatom Concern JSC.* Near-Future Plans of Rosenergoatom on Implementation of the Nuclear Power Development Strategy

*Adamov E.O.*, *RDIPE JSC.* The Role of Fast Reactors in Russian Nuclear Power Development Strategy

*Gulevich A.V.*, *SSC RF IPPE.* The Strategic Issues to Solve by Means of a Two-Component Nuclear Power System with a Single Closed Fuel Cycle, and the Role of Thermal and Fast Reactors

*Zverev D.L.*, *OKBM Afrikantov JSC.* Key Objectives for Improving Fast Reactor Technologies, High Temperature Gas Cooled Reactors, Low and Medium Power Sources based on Pressurized Water Reactors

*Konstantinov N.I.*, *Rosenergoatom Concern JSC.* Development of Rosenergoatom New Businesses Abroad: BOO, ACMM, Nuclear Infrastructure...

*Piminov V.A.*, *EDO Gidropress JSC.* Program for VVER Technology Enhancement and Improvement of Its Consumer Attractiveness under Conditions of a Two-Component Nuclear Power System

Panelists' presentations – up to 15 min.

Discussion – up to 40 min.

12<sup>00</sup>–12<sup>30</sup> Briefing for mass media. VNIIAES Building, 2<sup>nd</sup> floor, the OPAS room

12<sup>00</sup>–14<sup>00</sup> **Lunch**

14<sup>00</sup>–18<sup>30</sup> Section sessions

18<sup>30</sup>–21<sup>00</sup> **Official dinner**

# SECTION PROGRAMMES

## SECTION 1. SAFE AND EFFECTIVE OPERATION OF NPPS

*Section chairman: Dementiev A.A., Rosenergoatom Concern JSC*

### Subsection 1.1. Operation, maintenance and repair of NPPs with VVER, RBMK, BN and EGP-6 reactors

*Subsection chairman: Chernikov O.G., Rosenergoatom Concern JSC.*

#### Topical area 1.1.1. Operation of NPPs with VVER reactors

*Chairman: Aydemirov O.A., Rosenergoatom Concern JSC.*

*Co-Chairman: Mikhalchuk A.V., VNIIAES JSC.*

Room 213 (Building 1), 2<sup>nd</sup> floor (The Crisis Center)

May 23<sup>rd</sup> Wednesday

- |                                     |  |
|-------------------------------------|--|
| 14 <sup>00</sup> –14 <sup>20</sup>  | <b>Session opening</b><br>Activities of the Office for VVER Reactors Operation from the Nuclear Power Development Prospect<br><i>Aydemirov O.A., Rosenergoatom Concern JSC</i>                       |
| 14 <sup>20</sup> –14 <sup>50</sup>  | Sino-Russian Cooperation Model Project in the Sector of Nuclear Energy and its Follow-up Development<br><i>Shen Yanfeng, Tianwan NPP</i>   |
| 14 <sup>50</sup> –15 <sup>20</sup>  | Aspects of Development of Failure Tolerant Fuel for VVERs<br><i>Novikov V.V., VNIINM JSC</i>   |
| 15 <sup>20</sup> –15 <sup>40</sup>  | <b>Coffee break. Overview of poster presentations</b>  |
| 15 <sup>40</sup> –16 <sup>10</sup>  | The PLAN BLOK Computer Code for Optimization of Fuel Loads at VVER-1000 Reactors with Actual Operation Modes Taken into Account<br><i>Pavlovichev A.M., NRC Kurchatov Institute</i>                  |
| 16 <sup>10</sup> –16 <sup>40</sup>  | The PLAN AES Computer Code for Scheduling Economically Efficient Operation of a Multi-Unit NPP with Actual Unit Operation Modes Taken into Account<br><i>Mikhalchuk A.V., VNIIAES JSC</i>            |
| 16 <sup>40</sup> – 17 <sup>10</sup> | Study of Control Algorithms for Daily Load Follow Modes for VVER-1200 Reactors<br><i>Vygovsky S.B., NRNU MEPhI</i>   |
| 17 <sup>10</sup> –17 <sup>35</sup>  | Implementation of Fast Neutron Fluence Monitoring to Control Exposure Related Residual Life of Equipment of VVER Reactors in Pursuance of Existing FNR Requirements<br><i>Borodkin P.G., SEC NRS</i> |
| 17 <sup>35</sup> –18 <sup>00</sup>  | <b>Discussion. Section summing up</b>  |

May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>25</sup> Water Chemistry Regime for the Evaporation Cooling Towers of VVER Nuclear Power Units  
*Krutskikh D.A., VNIIAES JSC*
- 09<sup>25</sup>–09<sup>50</sup> Peculiarities of Strain-Stressed States of NPP Containments at the Stages of Erection, Pre-Stressing, Commissioning Tests and Operation  
*Medvedev V.N., Nuclear Safety Institute of the Russian Academy of Sciences*
- 09<sup>50</sup>–10<sup>10</sup> Simulation of Processes within the Passive Heat Removal System of VVER-1200 Steam Generators  
*Mikhalycheva E.A., Joint Institute for Power and Nuclear Research-Sosny, Belarus*
- 10<sup>10</sup>–10<sup>30</sup> Results of Studies of the Oxide Film Structure at Fuel Cladding Locations with a Higher Oxidation Levels for a TVS-2M Assembly Used at Balakovo NPP Unit 4 for One Fuel Cycle  
*Volkova I.N., NIIAR*
- 10<sup>30</sup>–11<sup>00</sup> Results of Studies of Leaking Fuel Rods of VVER-1000 Reactor Performed by SNC NIIAR in 2016-2017  
*Strozhuk A.V., NIIAR*
- 11<sup>00</sup>–11<sup>30</sup> Coffee break**
- Overview of poster presentations**
- 11<sup>30</sup>–11<sup>50</sup> Study of Control Algorithms for Daily Load Follow Modes for VVER-1200 Reactors  
*Vygovsky S.B., NRNU MEPhI*
- 11<sup>50</sup>–12<sup>10</sup> Concerning the Optimum Water Level in Steam Generator of VVER NPPs  
*Parchevsky V.M., NRU MPEI*
- 12<sup>10</sup>–12<sup>35</sup> A Method for Detection of VVER Fuel Leaks through Xe Radionuclide Activity  
*Kalinichev P.M., SNC RF TRINITY*
- 12<sup>35</sup>–13<sup>00</sup> Analysis of VVER-1200 Power Unit Vibration State at Various Phases of Its Startup and the First Campaign of Commercial Operation  
*Slepov M.T., Novovoronezh NPP*
- 13<sup>00</sup>–13<sup>30</sup> Coffee break**
- 13<sup>30</sup>–14<sup>00</sup> Discussion**
- Voting for the best section report**
- Section summing up**

## Topical area 1.1.2. Operation of NPPs with RBMK, BN and EGP-6 reactors

Chairman: *Bystrikov A.A., Rosenergoatom Concern JSC*

Co-Chairman: *Druzhinin V.E., VNIIAES JSC*

Room 613 (Building 1), 6<sup>th</sup> floor

### May 23<sup>rd</sup> Wednesday

- 14<sup>00</sup>-14<sup>20</sup>**     **Session opening**  
*Bystrikov A.A., Rosenergoatom Concern JSC*
- 14<sup>20</sup>-15<sup>00</sup>     Issues of RBMK-1000 Reactor Unit Life Management  
*Slobodchikov A.V., RDIPE JSC*
- 15<sup>00</sup>-15<sup>30</sup>**     **Coffee break**
- 15<sup>30</sup>-16<sup>00</sup>     Topical Physical Tasks to Solve for Ensuring Safe Operation of  
RBMK-1000 Reactors  
*Rozhdestvensky M.I., RDIPE JSC*
- 16<sup>00</sup>-16<sup>30</sup>     Development of the Higher Accuracy Computer Code MNT-Cuda for  
Solving the RBMK Operational Support Tasks  
*Ivanov I.E., VNIIAES JSC*
- 16<sup>30</sup>-17<sup>00</sup>     Experience of Neutronics Calculations Using the STEPAN-MPG  
Code  
*Balygin A.A., NRC Kurchatov Institute*
- 17<sup>00</sup>-17<sup>30</sup>     The Full-Scale 3D Code KLADKA for Temperature Field Calculations  
in Structural Elements of RBMK Core for Stationary, Transient and  
Accident Modes  
*Babaytsev V.N., NRC Kurchatov Institute*
- 17<sup>30</sup>-18<sup>00</sup>**     **Discussion**  
**Summing up**

### May 24<sup>th</sup> Thursday

- 09<sup>00</sup>-09<sup>30</sup>     BN-80 Reactor Assembly for Material Studies  
*Maximtsev D.M., OKBM Afrikantov JSC*
- 09<sup>30</sup>-10<sup>00</sup>     BN-600 and BN-800 Reactor Units Operational Support Using the  
Software Complex GEFEST  
*Belov A.A., Nuclear Safety Institute of the Russian Academy of  
Sciences*
- 10<sup>00</sup>-10<sup>30</sup>     The SKPF System for Subcriticality Control and Physical  
Measurements  
*Fedorov V.A., NRNU MEPhI*
- 10<sup>30</sup>-11<sup>00</sup>**     **Coffee break**

- 11<sup>00</sup>–11<sup>30</sup> Development, Manufacturing and Testing of a Hanger for PIK-800 Ionization Chamber. PIK-800 Implementation at Beloyarsk NPP Unit 4  
*Kirichenko G.P.P., KPP Atompribor JSC*  
*Salyaev A.V., OKBM Afrikantov JSC*
- 11<sup>30</sup>–12<sup>10</sup> The Robotic System for Cutting Graphite Stacks for Restoration / Enlargement of Gaps between Core Shroud and Graphite Stack at RBMK-1000 Reactor Units  
*Sursky P.V., Tarakanov V.Yu., Diacont JSC*
- 12<sup>10</sup>–12<sup>50</sup> Gap Restoration in the Core Shroud - Graphite Stack System at Kursk NPP Unit 1 by means of the Robotic System  
*Shevtsov I.A., Prolog JSC*  
*Kurennoy E.P., Kursk NPP*
- 12<sup>50</sup>–13<sup>20</sup> Development of the Higher Accuracy Computer Code TRIUM800 for Calculation Support to BN-800 Reactor Operation  
*Rozhikhin E.V., SNC RF IPPE JSC»*
- 13<sup>20</sup>–13<sup>40</sup> The Optimizator ZR Software. Optimization of Fuel Channel Reloading Sequence  
*Morozov A.Yu., Smolensk NPP*
- 13<sup>40</sup>–14<sup>00</sup> **Voting for the best section report**  
**Section summing up**
- 14<sup>00</sup>–14<sup>30</sup> **Coffee break**

### Topical area: 1.1.3. Maintenance & repair and installation of NPP equipment

Chairman: Krupsky A.G., Rosenergoatom Concern JSC

Co-Chairman: Chernikov A.A., Atomenergoremont JSC

Room 614 (Building 1), 6<sup>th</sup> floor

May 23<sup>rd</sup> Wednesday

- 14<sup>00</sup>–14<sup>20</sup>**     **Session opening.**  
*Krupsky A.G., Rosenergoatom Concern JSC*
- 14<sup>20</sup>–14<sup>40</sup>     The Lean Culture Projects for Power Unit Maintenance Outage Optimization: Scheduling, Implementation and Effectiveness Measuring. An Example of Power Unit Maintenance Outage Optimization at Smolensk NPP Unit 2 in 2017–2018  
*Aputin V.M., Smolensk NPP*
- 14<sup>40</sup>–15<sup>00</sup>     Maintainability of Power Units under Construction  
*Gagarin I.A., Atomenergoremont JSC*
- 15<sup>00</sup>–15<sup>30</sup>**     **Coffee break**
- 15<sup>30</sup>–15<sup>50</sup>     Performance of Repair and Modernization Works for RBMK-1000 Reactor Core Equipment  
*Biryukov A.N., RDIPE JSC*
- 15<sup>50</sup>–16<sup>10</sup>     Optimization of Non-Production Losses for the Works Performed in the Central Hall  
*Leonov A.I., Kursk NPP*
- 16<sup>10</sup>–16<sup>30</sup>     Repair of Dissimilar Welding Joints No. 23 (76,77) for Adapter Ring-to-Nozzle Welding in the PGV-4 (PGV-213) Steam Generator Using an Automatic Welding System  
*Gaynutdinov A.R., Kola NPP*
- 16<sup>30</sup>–16<sup>50</sup>     Restoration of RBMK-1000 Reactor Unit Elements at Leningrad NPP  
*Godovykh P.V., Leningrad NPP*
- 16<sup>50</sup>–17<sup>10</sup>     Up-to-Date Developments of Technology and Rigging for Plugging Heat Exchanger Tubes of PGV-1000 SG  
*Volkov L.P., SPE “Alpha Diagnostics”*
- 17<sup>10</sup>–17<sup>30</sup>     Development of Information Software Modules for Nuclear Power Industry Personnel  
*Nikiforov V.N., NRNU MEPhI*
- 17<sup>30</sup>–17<sup>50</sup>     Experimental Try-Out of a Technology for Repairing the Welding Joint No. 111 of PGV-1000M SG Using a Special Equipment Set at Novovoronezh NPP  
*Lebedev N.V., GMZ Khimmash JSC*
- 17<sup>50</sup>–18<sup>00</sup>**     **Discussion. Summing up**



May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>30</sup> Establishment of a Lean Culture Process Factory in the Area of NPP Equipment Maintenance & Repair  
*Lyubakhin S.V., Atomenergoremont JSC*
- 09<sup>30</sup>–10<sup>00</sup> The POLYSOUDE Innovative Solutions for the Nuclear Industry  
*Gutorov D.A., POLYSOUDE Representation Office*
- 10<sup>00</sup>–10<sup>30</sup> Alteration of Approaches to Equipment Condition-Based Maintenance and the Maintenance Cycles Entailed by the New Regulatory Requirements  
*Voynilenko V.V., VNIAES JSC*
- 10<sup>30</sup>–11<sup>00</sup> Coffee break**
- 11<sup>00</sup>–11<sup>30</sup> New Load-Bearing Element of the Multiple Nut Runner for Tightening / Loosening the Nozzles of VVER Reactor Vessel Head  
*Vladimirov V.I., “Norma energoatom” PJSC*
- 11<sup>30</sup>–12<sup>00</sup> Analysis of Application Results for the Technology of Mechanical Re-Distribution of Residual Welding-Induced Stresses in the 300-mm Diameter Austenite Pipelines Located in RMBK-1000 Reactor Unit Premises  
*Babkin L.B., VNIAES JSC*
- 12<sup>00</sup>–12<sup>30</sup> Ensuring Personnel Radiation Safety during Maintenance and Repairing Works at NPPs  
*Zanziev A.V., GMZ Khimmash JSC*
- 12<sup>30</sup>–13<sup>00</sup> Replacement of the Diesel Generator Crankshaft in the Conditions of an Operating NPP  
*Fominykh A.Ya., Rostov NPP*
- 13<sup>00</sup>–13<sup>30</sup> Development and Production of Domestic Compounds for Cool Hardening to Use for 3rd and 4th Safety Class Equipment Repairing. The Update on Industry-wide Cooperation Progress  
*Smirnov M.M., TVEL JSC*
- 13<sup>30</sup>–14<sup>00</sup> Voting for the best section report**
- 14<sup>00</sup>–14<sup>30</sup> Coffee break**
- 14<sup>30</sup>–15<sup>30</sup> Discussion**  
**Section summing up**

## **Subsection 1.2. Engineering support to NPP operations**

*Chairman: Sultanov R.M., Rosenergoatom Concern JSC*

*Co-Chairman: Potapov V.V., VNIIAES JSC*

### **Topical area: 1.2.1. Equipment life management and nuclear power units lifetime extension**

*Chairmen: Berezanin A.A., Povarov A.V., Rosenergoatom Concern JSC;*

*Co-chairman: Loginov A.M., VNIIAES JSC*

Room 612 (Building 1), 6<sup>th</sup> floor

**May 23<sup>rd</sup> Wednesday**

- 14<sup>00</sup>–14<sup>10</sup>**      **Session opening**  
*Sultanov R.M., Rosenergoatom Concern JSC*
- 14<sup>10</sup>–14<sup>40</sup>      Progress in Monitoring and Diagnostics at NPPs  
*Gloth G., Framatome GmbH*
- 14<sup>40</sup>–15<sup>00</sup>      Results of Works on Development of Lifetime Management Programs for Equipment & Pipelines. The Challenges of Justification and Determination of Residual Life Parameters for E&P  
*Potapov V.V., VNIIAES JSC*
- 15<sup>00</sup>–15<sup>15</sup>      The Outcomes of Unit 5 Life Extension Activities and Outstanding Works at the Unit 6 of Kozloduy NPP  
*Ovedensky Ts., Kozloduy NPP, Bulgaria*
- 15<sup>15</sup>–15<sup>30</sup>      Frequency-Resonance Reflectometry: New Opportunities for Detection of Defects in Cables  
*Belousov S.V., NIIP JSC*
- 15<sup>30</sup>–16<sup>30</sup>**      **Coffee break**
- 16<sup>30</sup>–16<sup>55</sup>      Optimization and Development of the Thermal Equipment Diagnostics Systems to Meet Requirements of Life Management Programmes  
*Pavelko V.I., SEC Diaprom JSC*
- 16<sup>55</sup>–17<sup>15</sup>      Methodology for Lifetime Management of Reactor Installations of VVER Type  
*Bogachev A.V., EDO Hidropress JSC*
- 17<sup>15</sup>–17<sup>30</sup>      Application of Supercomputers and CFD Software for Resolution of Pending Issues in Nuclear Power Industry  
*Sveshnikov D.N., OKBM Afrikantov JSC*
- 17<sup>30</sup>–18<sup>00</sup>**      **Discussion**  
**Summing up**

May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>20</sup> Lifetime Extension of the Existing Nuclear Power Units of Rosenergoatom Concern JSC  
*Gilev V.A., Rosenergoatom Concern JSC*
- 09<sup>20</sup>–09<sup>40</sup> Lifetime Extension of Nuclear Power Units with VVER-1000 Reactors  
*Schekotov A.V., Balakovo NPP*
- 09<sup>40</sup>–10<sup>00</sup> Modernization and Lifetime Extension of Nuclear Power Unit 2 of Metzamor NPP (Armenia)  
*Sevikyan G.A., “Armenian NPP” CJSC*
- 10<sup>00</sup>–10<sup>20</sup> Application of Acoustoelasticity Method for Ensuring Long-Term Service Life of NPP Engineering Elements  
*Antonov M.I., St.-Petersburg Polytechnic University n.a. Peter the Great*
- 10<sup>20</sup>–10<sup>40</sup> Results of Activities on Development of Life Management Programs for Thermomechanical Equipment and Civil Structures of Buildings and Facilities  
*Loginov A.M., Ilyin V.A., VNIIAES JSC*
- 10<sup>40</sup>–11<sup>00</sup> Use of Residual Life Test Results for Electric and I&C Components for Determination of Limit States and Residual Life Parameters  
*Zvonarev A.V., EREC JSC*
- 11<sup>00</sup>–11<sup>20</sup> Ways to Ensure Structural Integrity of the NPP Process Systems Elements  
*Arzhaev A.A., NPO DIAPROK LLC*
- 11<sup>20</sup>–12<sup>00</sup> **Discussion**
- Section summing up**
- 12<sup>00</sup>–13<sup>00</sup> **Coffee break**

## Topical area: 1.2.2. Enhancement of electric equipment reliability

Chairman: Prorokov O.A, Rosenergoatom Concern JSC

Co-Chairman: Kononenko A.I., NIIP JSC

Room 319 (the Module building, 3<sup>rd</sup> floor)

May 23<sup>rd</sup> Wednesday

- 14<sup>00</sup>–14<sup>20</sup>**      **Session opening**  
*Sultanov R.M., Rosenergoatom Concern JSC*  
*Prorokov O.A, Rosenergoatom Concern JSC*
- 14<sup>20</sup>–14<sup>50</sup>      Enhancement of Electric Equipment of the Existing NPPs  
*Prorokov O.A, Rosenergoatom Concern JSC*
- 14<sup>50</sup>–15<sup>10</sup>      Assessment of Electric Insulation Conditions Using Relaxation  
Isothermal Current Measurement Results  
*Kononenko A.I., NIIP JSC*
- 15<sup>10</sup>–15<sup>30</sup>      Implementation of Measures Aimed at Limitation of Short Circuit  
Current Levels in 330-kV Grid  
*Boytsov M.A., Leningrad NPP*
- 15<sup>30</sup>–16<sup>10</sup>**      **Coffee break**
- 16<sup>10</sup>–16<sup>30</sup>      Comprehensive Diagnostics of NPP Electric Equipment. The Status  
and Prospects of Electric Equipment Engineering Diagnostics  
Activities Organization at NPPs Using Portable and Stationary  
Systems.  
*Aksenov Yu.P., DIAKS JSC*
- 16<sup>30</sup>–16<sup>50</sup>      Advanced Methods and Means for DC Electric Resistance  
Measurement of Power Transformer Windings  
*Ekaterinina O.N., “SDB of Electric Instrument Engineering” JSC*
- 16<sup>50</sup>–17<sup>10</sup>      Operation and Modernization of Generation Equipment for NPP  
Reliability Increasing and Lifetime Extension  
*Zheleznyak V.N., “Power Machinery” PJSC, “Elektrosila” Plant*
- 17<sup>10</sup>–17<sup>30</sup>      Prospects of Implementation of the Systems for Monitoring and  
Engineering Diagnostics of Electric Machines  
*Zavidey V.I., RFNC-VNIITF*
- 17<sup>30</sup>–18<sup>00</sup>**      **Discussion**  
**Summing up**

May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>10</sup>** **Session resumption. Opening remarks**  
*Prorokov O.A., Rosenergoatom Concern JSC*
- 09<sup>10</sup>–09<sup>30</sup> Introduction of Computerized Diagnostic Monitoring of HV Equipment for NPP Operational Reliability Enhancement  
*Mudrik A.A., CAMLIN Ltd*
- 09<sup>30</sup>–09<sup>50</sup> Turbine Generators Vibroacoustic Diagnostics and Monitoring  
*Nazolin A.L., SEC “Resource” CJSC*
- 09<sup>50</sup>–10<sup>10</sup> Enhancement of Reliability of Uninterruptible Power Supply to Electric Equipment at NPP Facilities in Emergency Operation Modes  
*Aleshkin A.A., “AK Booster” CJSC*
- 10<sup>10</sup>–10<sup>40</sup> Innovative Electric Equipment to Ensure Safe and Efficient Operation of Nuclear Power Plants  
*Kovalev V.D., “Elektrozavod” JSC*
- 10<sup>40</sup>–11<sup>20</sup>** **Coffee break**
- 11<sup>20</sup>–11<sup>40</sup> In-situ Power Transformers Testing for Elevated Voltage Levels  
*Gorbunov A., “Smart Energo” CJSC*
- 11<sup>40</sup>–12<sup>00</sup> Approaches to Interpretation of Frequency Parameter Measurements for Assessment of Conditions of Power Transformer Windings at Reactors.  
The Current Status and Prospects of Introduction of the Systems for Monitoring and Engineering Diagnostics of High-Power electric Machines and Apparatuses  
*Volkov A.Yu., “VEI the branch of FSUE “RFNC-VNIITF”*
- 12<sup>00</sup>–12<sup>30</sup> A System for Comprehensive On-line Monitoring of Transformer Equipment  
*Gorokhov N.B., “Pergam-Engineering” JSC*
- 12<sup>30</sup>–14<sup>30</sup>** **Discussion**  
**Section summing up**  
**Coffee break**

### Topical area: 1.2.3. Material science and metal inspections

Chairman: *Lovchev V.N., Rosenergoatom Concern JSC*

Co-Chairman: *Korneev A.E., SSC RF CNITMash*

3<sup>rd</sup> floor, left side (Building 2)

May 23<sup>rd</sup> Wednesday

- 14<sup>00</sup>–14<sup>20</sup>**     **Session opening**  
*Lovchev V.N., Rosenergoatom Concern JSC*
- 14<sup>20</sup>–14<sup>45</sup>     Developments of Standards of allowable wall thickness for Model programs of NPP in-service inspection with different types of reactor installations. Problematic issues in predicting the ECW rate and in evaluating the measurement uncertainty  
*Kuzmin D.A., VNIIAES JSC*
- 14<sup>45</sup>–15<sup>10</sup>     Development of Innovative Materials for Application in Advanced VVER Reactor Unit Designs  
*Margolin B.Z., NRC Kurchatov Institute, CRISM “Prometey”*
- 15<sup>10</sup>–15<sup>30</sup>     Results and Prospects in Development of Works in Resolving Challenges of Erosion-Corrosion of Equipment and Pipelines at NPP Units  
*Tomarov G.V., Geotherm-M LLC*
- 15<sup>30</sup>–16<sup>30</sup>**     **Coffee break**
- 16<sup>30</sup>–16<sup>55</sup>     Methods and Technologies to Improve Informativeness of Automatic Ultrasonic Inspection of Thick-Wall Welded Joints at Nuclear Power Plants  
*Tikhonov D.S., NPC ECHO+ LLC*
- 16<sup>55</sup>–17<sup>30</sup>     Application of Acoustic Emission Monitoring Technology to Detect Cracks in Metal Structures  
*Barat V.A., Energosvyazinvest LLC*
- 17<sup>30</sup>–18<sup>00</sup>**     **Discussion**  
**Section summing up**

May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–9<sup>30</sup>     Activities on Experimental Study of Actual Material Properties of VVER Reactor Unit after 45 Years of Operation at Novovoronezh NPP Unit 3  
*Varovin A.Ya., NRC Kurchatov Institute – CRISM “Prometey”*

- 09<sup>30</sup>–10<sup>00</sup> Identification of Actual Metal Properties of Reactor Vessels Using the Results of Studies of the Metal Specimen Cut from the Reactor Vessel Walls  
*Erak D.Yu., NRC Kurchatov Institute*
- 10<sup>00</sup>–10<sup>30</sup> Studies of Material Properties of Samples of Defective Heat Exchanging Tubes and Metal of the Steam Generator Casing from Novovoronezh NPP Unit 3 after 45 Years of Operation  
*Kazansev A.G., NPO CNIITMASH JSC*
- 10<sup>30</sup>–11<sup>30</sup> **Coffee break**
- 11<sup>30</sup>–12<sup>00</sup> A System for Classification of Equipment Assemblies and Inspection Zones Based on the MOiT ISI Information System  
*Tyurin A.V., “SPE Sigma IT” LLC*
- 12<sup>00</sup>–12<sup>30</sup> Metodological Approaches to Treatment and Analysis of Inspection Results from MOiT ISI Information System for NPPs  
*Alexandrov A.E., “SPE Sigma IT” LLC*
- 12<sup>30</sup>–13<sup>00</sup> **Discussion**  
**Section summing up**  
**Coffee break**

**Topical area: 1.2.4. RW management, nuclear power units decommissioning including preparation to decommissioning**

*Chairman: Stakhiv M.R., Rosenergoatom Concern JSC*  
*Co-Chairperson: Safronova N.N., Rosenergoatom Concern JSC*

Building 2, 3<sup>rd</sup> floor, center

**May 23<sup>rd</sup> Wednesday**

- 14<sup>00</sup>–14<sup>10</sup> **Session opening**  
*Stakhiv M.R., Rosenergoatom Concern JSC*
- 14<sup>10</sup>–14<sup>30</sup> Solving the Tasks of NPP Units Decommissioning  
*Safronova N.N., Rosenergoatom Concern JSC*
- 14<sup>30</sup>–14<sup>50</sup> Graphite CI-36 Inventory, Recent Efficient Developments  
*Poncet B., EDF Group*
- 14<sup>50</sup>–15<sup>10</sup> French Graphite Gas Reactors Dismantling Programme  
*Dorier C., EDF Group*

- 15<sup>10</sup>–15<sup>30</sup> Concerning the Issue of Development of Irradiated Graphite and SNF Management Technologies for Decommissioning of Nuclear Power Plants with RBMK-1000 Reactors  
*Kalyutik A.A., St.-Petersburg State Polytechnic University*
- 15<sup>30</sup>–16<sup>00</sup> **Coffee break**
- 16<sup>00</sup>–16<sup>20</sup> Reuse of Materials During Decommissioning of NPP Reactor Units  
*Ermoshin F.E., RDIPE JSC*
- 16<sup>20</sup>–16<sup>40</sup> Mobile Modular Complex Facilities and Equipment for RW Conditioning  
*Gorbunova O.A., FSUE "RosRAO"*
- 16<sup>40</sup>–17<sup>00</sup> Practical Experience of RW Acceptance for Disposal  
*Cherkesov A.E., ODPB FSUE "NO RAO"*
- 17<sup>00</sup>–17<sup>20</sup> Priority areas for the optimization of radioactive waste management  
*Samoilov A.A., Nuclear Safety Institute of the Russian Academy of Science*
- 17<sup>20</sup>–17<sup>40</sup> Modern Approaches to Reprocessing and Conditioning Facilities for Newly Built NPPs  
*Adamovich D.V., NIKIMT-Atomstroy JSC*
- 17<sup>40</sup>–18<sup>00</sup> Construction of Radioactive Waste Reprocessing Facility at Kursk NPP  
*Zerkal D.G., WANO-MC representative at Kursk NPP*

### May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>10</sup> **Opening remarks**  
*Stakhiv M.R., Rosenergoatom Concern JSC*
- 09<sup>10</sup>–09<sup>30</sup> Modernization of Spent Ion Exchanging Resin Dryer Design at Balakovo NPP  
*Kozhevnikova E.K., Balakovo NPP*
- 09<sup>30</sup>–09<sup>50</sup> RW Conditioning at Novovoronezh NPP. Challenges and Ways of Its Resolution. Process Monitoring in Course of Conditioning.  
*Bulka S.K., Novovoronezh NPP*
- 09<sup>50</sup>–10<sup>10</sup> Options of Evaporator Sludge Reprocessing for Beloyarsk NPP  
*Savkin A.E., FSUE "Radon"*
- 10<sup>10</sup>–10<sup>30</sup> The Reagent-Sorption Aftertreatment of Evaporator Sludge Solutions with a Higher Salt Content to Remove Radionuclides  
*Ivanenko V.I., Institute of Chemistry and Technology of Rare Elements and Mineral Raw Materials / Kola Science Center of the RAS*
- 10<sup>30</sup>–11<sup>00</sup> **Coffee break**



- 11<sup>00</sup>–11<sup>20</sup> Selection of Treatment Strategy for Liquid RW Generated at Rosenergoatom NPPs  
*Sharov D.A., VNIIAES JSC*
- 11<sup>20</sup>–11<sup>40</sup> Facilities for RW Characterization and Exemption from Regulatory Control  
*Kryuchkova L.M., SPE “Radico”*
- 11<sup>40</sup>–12<sup>00</sup> The Experience of Establishment of a Complex Facility for SRW Reprocessing at a NPP. RW Conditioning Technology Problems and Their Solutions  
*Zinin A.V., “NIKIMT-Atomstroy” JSC*
- 12<sup>00</sup>–12<sup>20</sup> SRW Plasma Reprocessing Complex Facility at EDCD Affiliate of Rosenergoatom Concern JSC  
*Kadyrov A.V., Novovoronezh NPP*
- 12<sup>20</sup>–12<sup>40</sup> The Digital Decommissioning Software & Hardware System: an Innovative Approach to Decommissioning of Nuclear Power Facilities  
*Tikhonovsky V.L., Neolant CJSC*
- 12<sup>40</sup>–13<sup>00</sup> Comprehensive Examination of Leningrad NPP Unit 1 Aimed at Obtaining License on Operation of the Unit Shut Down for Decommissioning  
*Kuznetsov A.N., Leningrad NPP*
- 13<sup>00</sup>–13<sup>20</sup> Issues of Efficient Use of NZK Type Casks for Disposal of Radioactive Waste  
*Sobko A.A., RAOPROEKT JSC*
- 13<sup>20</sup>–13<sup>40</sup> Packages for RW  
*Radchenko M.V., “ECNC” JSC*
- 13<sup>40</sup>–14<sup>00</sup> Discussion**
- Section summing up**
- 14<sup>00</sup>–14<sup>30</sup> Coffee break**
- 14<sup>30</sup>–15<sup>30</sup> Voting for the best section report**

## Topical area: 1.2.5. SNF management

Chairman: Lobkov Yu.M., Rosenergoatom Concern JSC

Co-Chairperson: Filippova Yu.Yu., VNIIAES JSC

Building 2, 2<sup>nd</sup> floor, room No. 210

### May 23<sup>rd</sup> Wednesday

- 14<sup>00</sup>–14<sup>15</sup>**     **Session opening**  
*Lobkov Yu.M., Rosenergoatom Concern JSC*
- 14<sup>15</sup>–14<sup>50</sup>     Specification for Transfer of Spent Nuclear Fuel from Wet to Dry Storage at Smolensk NPP  
*Antonenko V.M., Smolensk NPP*
- 14<sup>50</sup>–15<sup>30</sup>     Substantiation of Opportunity for Transport and Storage in Dry Storage Facility HOT-2 of FSUE MChC of Spent Nuclear Fuel from RBMK-1000 reactors with its Prior Holding for 10 Years Minimum  
*Lukashevich A.A., FSUE Mining and Chemical Combine*
- 15<sup>30</sup>–16<sup>00</sup>**     **Coffee break**
- 16<sup>00</sup>–16<sup>35</sup>     Measurement of Nuclear Fuel Burnup at Kalinin NPP and GKKh Combine with Application of MKS Series Installations  
*Nikolaev S.A., NRC RF IPPE, Obninsk*
- 16<sup>35</sup>–17<sup>10</sup>     Subcriticality Measurements in Spent Fuel Storage Pool at VVER-1000 with Application of the SKP-HOT System  
*Chernov V.A., NRC RF IPPE, Obninsk*
- 17<sup>10</sup>–18<sup>00</sup>**     **Discussion. Summing up**

### May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>10</sup>**     **Session resumption**  
*Lobkov Yu.M., Rosenergoatom Concern JSC*
- 09<sup>10</sup>–09<sup>40</sup>     Phase, Element and Radionuclide Analysis of Corrosion Products and Depositions in Cask Tubes of K-17U Assemblies  
*Golosov O.A., Institute of Reactor Materials JSC*
- 09<sup>40</sup>–10<sup>10</sup>     Experience of Operation of Russian Cast Iron Casks TUK-1410 and TUK-153 at VVER-1000 NPPs  
*Zubkov A.A., ICYaK JSC*
- 10<sup>10</sup>–10<sup>40</sup>     Inclusion of the 14th Series Transport Package Sets into the Handling Operation Pattern of FSUE “PA Mayak”  
*Savinov V.A., FSUE “PA Mayak”*
- 10<sup>40</sup>–11<sup>10</sup>**     **Coffee break**

- 11<sup>10</sup>–11<sup>35</sup> Experience Gained with Reprocessing of Leaking SNF from RBMK-1000 at FSUE “PA Mayak”  
*Belinsky L.L., FSUE “PA Mayak”*
- 11<sup>35</sup>–12<sup>00</sup> SNF Reprocessing as a Key Factor of Closing the Nuclear Fuel Cycle  
*Sheremetyev A.V., FSUE “PA Mayak”*
- 12<sup>00</sup>–14<sup>00</sup> **Discussion**  
**Section summing up**  
**Coffee break**

### Topical area: 1.2.6. Fire Safety

*Chairman: Nikiforov V.V., Technology Affiliate of Rosenergoatom Concern JSC*

*Co-Chairman: Aleshkov M.V., the State Firefighting Service of the EMERCOM of Russia*

Building 1, 6<sup>th</sup> floor, room 615

May 23<sup>rd</sup> Wednesday

- 13<sup>30</sup>–13<sup>40</sup> **Session opening**  
*Nikiforov V.V., Technology Affiliate of Rosenergoatom Concern JSC*  
*Aleshkov M.V., the State Firefighting Service of the EMERCOM of Russia*
- 13<sup>40</sup>–14<sup>00</sup> Enhancement of Fire Protection at the Existing NPPs  
*Kharevsky V.A., FSS, Technology Affiliate of Rosenergoatom Concern JSC*
- 14<sup>00</sup>–14<sup>20</sup> The Main Areas of Activities on Fire Prevention at the Objects of Rosenergoatom Urban Planning Activities  
*Sazykin V.I., FSS, Technology Affiliate of Rosenergoatom Concern JSC*
- 14<sup>20</sup>–14<sup>40</sup> Issues Related to Regulatory Technical Control of Fire Safety  
*Bolodian I.A., R&D Institute of Fire Safety of the EMERCOM of Russia*
- 14<sup>40</sup>–15<sup>00</sup> The Challenge of Unit Fire Safety Measures Sufficiency Justification and Its Main Solutions. Key Aspects of the Fire Impact and Consequences Analysis Methodology to Assess Fire Impact on Safe Reactor Shutdown and Cooldown during the Design, Construction and Commissioning Phases.  
*Ugorelov V.A., R&D Institute of Fire Safety of the EMERCOM of Russia*
- 15<sup>00</sup>–15<sup>30</sup> **Coffee break**

- 15<sup>30</sup>–15<sup>50</sup> The Training Simulator for Fire Extinguishing at Electric Facilities of up to 10kV Voltage: Innovative Solutions to Ensure Safety of NPP Operators and Firefighting Brigade Staff in Course of Electric Facility Fire Extinguishing.  
*Varshamov A.G., “Respiratory Systems-2000” JSC*
- 15<sup>50</sup>–16<sup>10</sup> Integrated Solutions for NPP Fire Protection  
*Kurushin N.N., Siemens LLC»*
- 16<sup>10</sup>–16<sup>20</sup> Purpose, Application and Operational Features of the DPA-300 Respirator  
*Churkin V.E., “TD Arsenal PTV” JSC*
- 16<sup>20</sup>–16<sup>30</sup> Fire Extinguishing at NPPs in the Environment of Fire Hazards, Radiation Fields and Chemical Accident Induced Hazards Using a Mobile Robotic Firefighting Unit  
*Bogdanov A.E., FSS / Technology Affiliate of Rosenergoatom Concern JSC*
- 16<sup>30</sup>–16<sup>50</sup> Innovative Technologies for Fire Protection of NPP Facilities Using TRV Sets  
*Makunin I.V., “Technos-M”*
- 16<sup>50</sup>–17<sup>10</sup> The Fire Protection Control System of Beloyarsk NPP Unit 3. Experience of Implementation and Operation  
*Moskalev K.V., Beloyarsk NPP*
- 17<sup>10</sup>–17<sup>30</sup> **Discussion**
- 17<sup>30</sup>–18<sup>00</sup> **Summing up**

### May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>10</sup> **Session resumption. Opening remarks**  
*Nikiforov V.V., FSS / Technology Affiliate of Rosenergoatom Concern JSC*  
*Aleshkov M.V., State Fire Service Academy of the EMERCOM of Russia*
- 09<sup>10</sup>–09<sup>20</sup> Upgrading Hydrogen Safety of VVER NPPs by Means of Hydrogen Separation through Nickel Membrane and Absorption by Zirconium  
*Orlova E.A., NRNU MEPhI*
- 09<sup>20</sup>–09<sup>30</sup> Fire Safety at Special Purpose Facilities  
*Leilkhner A.V., Pozhtekhnika JSC*
- 09<sup>30</sup>–09<sup>40</sup> OSART Mission Results in the Area of Fire Safety at Leningrad NPP  
*Mikhailov Yu.V., Leningrad NPP*

- 09<sup>40</sup>–09<sup>50</sup> Conduct of First Competitions for the Title of the Best Fire-Fighting Crews of Voluntary Fire Units at Operating Nuclear Power Plants: Main Results and Preparation For Competitions in 2018  
*Bogdanov A.E., Fire Safety Service of Rosenergoatom Concern JSC*
- 09<sup>50</sup>–10<sup>00</sup> Establishment of Fire Protection Service Unit for Floating NCP Protection  
*Fedosov D.V., Affiliated Directorate for Construction and Operation of Floating NCP of Rosenergoatom Concern JSC*
- 10<sup>00</sup>–10<sup>30</sup> Readiness to Physical Startup of New Power Units at Leningrad NPP and Power Startup at Novovoronezh and Rostov NPPs  
*Mikhailov Yu.V., Leningrad NPP; Karakash S.V. Novovoronezh NPP; Pobednov A.A., Rostov NPP*
- 10<sup>30</sup>–11<sup>10</sup> Coffee break**
- 11<sup>10</sup>–11<sup>15</sup> Challenges for Fire Safety during Kursk-II NPP Construction (Related to Fire Department Organizational Structure and Staffing Level, Organization of Fire Protection of Kursk-II NPP Facilities)  
*Usik V.V., Kursk NPP*
- 11<sup>15</sup>–12<sup>00</sup> Reports on organization of communications and information exchange between NPPs on the best practices in Fire Safety improvement, the measures implemented or planned as well as on emerging challenges  
*Rapporteurs: Heads of FSS NPPs*
- 12<sup>00</sup>–13<sup>00</sup> Discussion**
- Section summing up**
- 13<sup>00</sup>–14<sup>00</sup> Coffee break**

### Subsection 1.3. Radiation safety, NPP ecology, emergency preparedness

*Chairman: Khlebtsevich V.E., Rosenergoatom Concern JSC*

*Co-Chairman: Zhurbenko A.V., NSC Kurchatov Institute*

#### Topical area: 1.3.1. Radiation safety at NPPs

*Chairman: Dolzhenkov I.V., Rosenergoatom Concern JSC*

*Co-Chairman: Kut'kov V.A., NSC Kurchatov Institute*

Building 1, 2<sup>nd</sup> floor, room 214 (the Crisis Center)

May 23<sup>rd</sup> Wednesday

- |  |   |
|--|---|
| <b>13<sup>00</sup>–13<sup>10</sup></b> | <b>Session opening</b><br><i>Khlebtsevich V.E., Rosenergoatom Concern JSC</i>   |
| 13 <sup>10</sup> –13 <sup>40</sup>     | Topical Issues of Optimization of Radiation Protection and Improvement of Dosimetry Control<br><i>Dolzhenkov I.V., Rosenergoatom Concern JSC</i>  |
| 13 <sup>40</sup> –14 <sup>10</sup>     | Minimization of Radiological Risks for Personnel in Situations of Planned and Emergency Radiation Exposure<br><i>Chekin S.Yu., SC for Medical Radiology n.a. A.F.Tsyb</i>   |
| 14 <sup>10</sup> –14 <sup>40</sup>     | The Concept of a Computerized System for Individual Dosimetry Monitoring as a System Important for NPP Safety<br><i>Kislov O.V., FSUE "PSZ"</i>   |
| <b>14<sup>40</sup>–15<sup>00</sup></b> | <b>Coffee break</b>   |
| 15 <sup>00</sup> –15 <sup>30</sup>     | Development of Scientific & Engineering Bases and Designing of Computerized Systems for Individual Dosimetry Monitoring and High-Tech Dosimeters Using the Optically Stimulated Luminescence Effects<br><i>Syurdo A.I., IPE of Ural Branch of RAS</i> |
| 15 <sup>30</sup> –16 <sup>00</sup>     | New Solutions in the On-line Monitoring of Individual Occupational Doses<br><i>Grudovik V., Polymaster LLC</i>  |
| <b>16<sup>00</sup>–17<sup>00</sup></b> | <b>Overview of poster presentations</b>   |
| <b>17<sup>00</sup>–17<sup>30</sup></b> | <b>Discussion</b><br><b>Summing up</b>  |

9 <sup>00</sup> –9 <sup>10</sup>	<b>Session resumption</b>
9 <sup>10</sup> –9 <sup>30</sup>	Topical Issues of Optimization of NPP Radiological Impact on the Environment <i>Belikov A.D., Rosenergoatom Concern JSC</i>
9 <sup>30</sup> –9 <sup>50</sup>	Modern Requirements Regulating Radioactive Releases & Discharges from Russian NPPs into the Environment <i>Kuryndin A.V., FBE “SEC NRC”</i>
9 <sup>50</sup> –10 <sup>10</sup>	Analysis of Results of the Radiation & Engineering Examination of Radioactive Source Terms at NPPs <i>Vasyanovich M.E., IPE of Ural Branch of RAS</i>
10 <sup>10</sup> –10 <sup>30</sup>	Experience of Application of Computerized Instruments for Taking Tritium Samples to Study Specific Activity of Tritium in Surface Air <i>Tarasenko A.A., FSUE “Mayak”</i>
10 <sup>30</sup> –10 <sup>50</sup>	The Concept of a New Generation Automated Radiological Monitoring System (ASKRO) <i>Bakin R.I., Nuclear Safety Institute of the Russian Academy of Sciences</i>
10 <sup>50</sup> –11 <sup>10</sup>	<b>Coffee break</b>
11 <sup>10</sup> –11 <sup>30</sup>	The Automated Radiological Monitoring System ASKRO as a Safety Important System. Prospects of Further Development. <i>Rtischev D.E., FSUE “PSZ”</i>
11 <sup>30</sup> –12 <sup>30</sup>	<b>Discussion of the presentations</b> <b>Discussion of topical areas of assessment and limitation of NPP radiological impact on the environment</b> <b>Section summing up</b> <b>Coffee break</b>

## Topical area 1.3.2. NPP ecology

Chairman: Pechkurov A.V., Rosenergoatom Concern JSC

Co-chairman: Plyamina O.V., Scientific & Research Institute of Ecology

The Module building, 1<sup>st</sup> floor

May 23<sup>rd</sup> Wednesday

- 14<sup>00</sup>–14<sup>10</sup>**      **Session opening**  
**Opening remarks**  
*Dolzhenkov I.V., Rosenergoatom Concern JSC*
- 14<sup>10</sup>–14<sup>40</sup>      Adaptation of Environmental Activities at Rosenergoatom NPPs to the Changes In Legislative and Regulatory Frameworks of the Russian Federation  
*Peckurov A.V., Palitskaya T.A., Rosenergoatom Concern JSC*
- 14<sup>40</sup>–15<sup>10</sup>      A Two-Component Nuclear Power System – a Promising Way of Environmentally Safe Development of Nuclear Energy  
*Grachev V.A., State Corporation Rosatom*
- 15<sup>10</sup>–15<sup>40</sup>      Assessment of Biological Indicators of Aquatic Ecosystems in Design and Operation of NPP Hydraulic Facilities  
*Petrukhina, N.A., Atomenergoproekt JSC*
- 15<sup>40</sup>–16<sup>00</sup>**      **Coffee break**
- 16<sup>00</sup>–16<sup>30</sup>      Comparative Analysis of Radiological and Chemical Risks in the Region of Beloyarsk NPP Placement  
*Arakelyan A.A., Panchenko S.V., Strizhova S.V., Nuclear Safety Institute of the Russian Academy of Sciences*
- 16<sup>30</sup>–17<sup>00</sup>      Modern Concepts on Organization the Monitoring System of Radiation Hazardous Facilities Taking into Account the Experience Gained in the Analysis of the Situation with Ru-106 in 2017  
*Shershakov V.M., NPO Typhoon of Roshydromet*
- 17<sup>00</sup>–17<sup>30</sup>      Protection of Nuclear Power Plant from Fouling with Glumatella of Plumatella Genus: Lifetime Management vs Elimination  
*Orlova M.I., NPO Hydrotechproekt LLC; Strogova E.V., FBSSI Zoological Institute of the Russian Academy of Sciences; Lichi T., NPO Atlantium LLC*
- 17<sup>30</sup>–18<sup>00</sup>**      **Discussion**  
**Summing up**



## May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>30</sup> Some Aspects of Foulter (Dreissena) Effects on Hydro Chemical Regime of Kalinin NPP Cooling Ponds in the Years of Extremum Water Content  
*Danilkin A.Yu., Gvay I.A., Kalinin NPP*
- 09<sup>30</sup>–10<sup>00</sup> Regarding the Issue of Compensation of a Possible Damage to Aquatic Biological Resources Caused in Course of a NPP Operation.  
*Luneva E.V., CPI Affiliate of Rosenergoatom Concern JSC; Shibaev S.V., Kaliningrad State Technical University; Shibaev L.V., West Baltic Basin Authority for Fishery and Preservation of Aquatic Biological Resources*
- 10<sup>00</sup>–10<sup>30</sup> Ensuring Technogenic Safety of NPP Cooling Pond by Organization of Optimal Water Exchange by Means of Blowdown-Makeup  
*Moroz N.A., Sednev V.A., Zamyslova T.N., VNI AES JSC*
- 10<sup>30</sup>–11<sup>00</sup> **Coffee break**
- 11<sup>00</sup>–11<sup>40</sup> Methods and Technologies of Hydro Botanic and Frequency-Wave Treatment of NPP Cooling Pond Water Areas  
*Podosinovikov A.A., Egorov M.A., Pashkin S.V., Miroshnikov A.I., ANO "GosCSI"; Chapaev Yu.N., IUVNPI-Moscow*
- 11<sup>40</sup>–12<sup>20</sup> Climatic Parameter Changes in the European Part of Russia and Assessment of Their Impact on Availability of Water Supply to NPPs  
*Obyazov V.A., Markov M.L., SPA "Gidrotechproject" LLC*
- 12<sup>20</sup>–13<sup>00</sup> Fouling Fighting by Means of Ultra Violet Decontamination  
*Onischenko D.O., Dushenko A.Yu. "KST-water" LLC  
Lourier M.A., Atlantium Technologies Ltd.*
- 13<sup>00</sup>–14<sup>00</sup> **Coffee break**
- 14<sup>00</sup>–15<sup>30</sup> **Discussion**  
**Section summing up**

**Topical area 1.3.3. Emergency preparedness**  
*Chairman: Markov A.P., Rosenergoatom Concern JSC*  
*Co-chairman: Kosov A.D., VNIAES JSC*

Building 1, 2<sup>nd</sup> floor, room 207 (the Crisis Center)

**May 23<sup>rd</sup> Wednesday**

- 13<sup>00</sup>–13<sup>10</sup> Session opening.**  
**Challenges of Implementation of NP-001, para. 4.5.2 Requirements**  
*Markov A.P., Rosenergoatom Concern JSC*
- 13<sup>10</sup>–13<sup>30</sup> State of Emergency Preparedness in REA. Areas for Improvement.  
Progress of Work to Address the Rostechnadzor’s Comments  
Referring to para. 4.5.2 of NP-001  
*Markov A.P., Rosenergoatom Concern JSC*
- 13<sup>30</sup>–14<sup>15</sup> On Relationship between the Guidelines for Management of  
Beyond-Design Basis Accidents for Russian NPPs and the  
Emergency Response Procedures, and Consideration of Possibility  
of Multi-Unit Accidents  
*Suslov A.I., NRC Kurchatov Institute*
- 14<sup>15</sup>–14<sup>35</sup> Opportunities for Application of Software and Technical Modelling  
Sets, Including Full-Scope Simulations, to Ensure Maintaining the  
Emergency Preparedness of NPP Units.  
*Molev A.P., VNIAES JSC*
- 14<sup>35</sup>–15<sup>00</sup> Simulation of Severe Accidents at VVER Full-Scope Simulators  
*Osadchaya D.Yu., ETC JET JSC*
- 15<sup>00</sup>–15<sup>20</sup> Software and Hardware Set “Virtual-digital VVER NPP”: State of  
Development and Scope of Application  
*Druzhaev A.A., VNIAES JSC*
- 15<sup>20</sup>–15<sup>45</sup> Revision of Approaches to Emergency Zoning of Territories in View  
of Simultaneous Occurrence of Beyond Design Basis Accidents at  
Several NPP Units  
*Illaryonenkova D.V., VNIAES JSC*
- 15<sup>45</sup>–16<sup>15</sup> Overview of poster presentations**
- 16<sup>15</sup>–16<sup>30</sup> Coffee break**
- 16<sup>30</sup>–17<sup>30</sup> Discussion of the presentations.**  
**Discussion on the topical areas of emergency preparedness  
enhancement**

- 09<sup>00</sup>–09<sup>05</sup> Session resumption**  
**Enhancement of Emergency Preparedness**
- 09<sup>05</sup>–09<sup>30</sup> General IAEA Safety Requirements with Respect to Emergency Preparedness and Response to Nuclear and Radiological Emergencies  
*Kutkov V.A., IAEA*
- 09<sup>30</sup>–09<sup>50</sup> Further Development of Guidance Documents for the Group of Emergency Support to NPPs (the OPAS Group) in the Part of their Harmonization with Existing RF Regulation Bases and International Standards  
*Golubkin V.A., Rosenergoatom Concern JSC*
- 09<sup>50</sup>–10<sup>10</sup> Development of Operational Tools to Support Decision-Making Based on Data of the Plant Radiation Monitoring System  
*Orekhov A.A., VNIAES JSC*
- 10<sup>10</sup>–10<sup>30</sup> Development of Instruments for On-line Support to Decision Making Based on NPP Radiation Monitoring System Data  
*Krasnoperov S.N., Nuclear Safety Institute of the Russian Academy of Sciences*
- 10<sup>30</sup>–10<sup>50</sup> The Issue of Uncertainties Assessment in the Results of Radiation Exposure Calculation for Personnel and Public in an Event of Radiation Accident at a NPP  
*Polyantsev S.S., VNIAES JSC*
- 10<sup>50</sup>–11<sup>10</sup> Coffee break**
- 11<sup>10</sup>–11<sup>40</sup> Instrumental Methods for Assessment of Social and Economic Consequences of Radiological Accidents  
*Aron D.V., Nuclear Safety Institute of the Russian Academy of Sciences (NSI RAS)*
- 11<sup>30</sup>–12<sup>00</sup> Areas for Development of National Regulatory Framework in the Field of Protection of Personnel and Public in Case of an Accident at a Nuclear Power Plant Taking into Account Modern IAEA Standards  
*Kosov A.D., VNIAES JSC*
- 12<sup>00</sup>–12<sup>30</sup> Discussion of the presentations**  
**Discussion on the topical areas of assessment and limitation of NPP radiological impacts on the environment**  
**Discussion**  
**Section summing up**  
**Coffee break**

## SECTION 2. NUCLEAR POWER DEVELOPMENT

*Chairman: Bezzubtsev V.S., Rosenergoatom Concern JSC;*  
*Co-Chairmen: Ponomarev-Stepnoy N.N., Rosenergoatom Concern JSC;*  
*Davidenko N.N., VNIIAES JSC*

### Subsection 2.1. Key areas of advanced technological development of nuclear power

*Chairman: Bezzubtsev V.S., Rosenergoatom Concern JSC*  
*Co-Chairmen: Kornienko K.A., Bakanov M.V., Rosenergoatom Concern JSC*

LSK Building, 1st floor

May 23<sup>rd</sup> Wednesday

- 14<sup>10</sup>–14<sup>20</sup>** **Session opening**  
*Bezzubtsev V.S., Rosenergoatom Concern JSC*
- 14<sup>20</sup>–14<sup>50</sup> Technical & Economic Aspects of Innovative Development of Russian Nuclear Power Industry in XXI Century  
*Alexeev S.V., Rosenergoatom Concern JSC*
- 14<sup>50</sup>–15<sup>20</sup> Innovative Reactor Technologies of the 4th Generation and Their Current Status of Development within the International Forum GENERATION -IV  
*Ashurko Yu.M., SNC RF IPPE»*
- 15<sup>20</sup>–15<sup>40</sup> Optimization of the Two-Component NPS Based on RBN and TR Reactors  
*Muraviev E.V., ITCP PRORYV*
- 15<sup>40</sup>–16<sup>00</sup> Solution of the Problem of Thermal Reactor SNF within a Two-Component Nuclear Power System  
*Chebeskov A.N., SNC RF IPPE*
- 16<sup>00</sup>–16<sup>30</sup>** **Coffee break**
- 16<sup>30</sup>–16<sup>50</sup> Current Status and Prospects of development of Fast Reactors with Lead Coolant  
*Moiseev A.V., RDIPE JSC*
- 16<sup>50</sup>–17<sup>10</sup> Modular Lead-Bismuth Fast Reactors for Nuclear Power Plants of Small and Medium Size  
*Klimov N.N., “EDO Hidropress” JSC*
- 17<sup>10</sup>–17<sup>30</sup> Modular Nuclear Plants with SVBR Reactor Unit  
*Komlev O.G., “AKME-Engineering” JSC*
- 17<sup>30</sup>–18<sup>00</sup>** **Discussion**  
**Section summing up**

May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>25</sup> Concerning a Need to Retain and Develop the Single Circuit Design Line within the National Nuclear Power Industry  
*Blagoveschensky A.Ya., Naval Polytechnical Institute of the Russian Navy*
- 09<sup>25</sup>–09<sup>45</sup> Capabilities and Problems of the Use of Supercritical Water Coolant in Reactor Installation.  
*Sedov A.A., NRC Kurchatov Institute*
- 09<sup>45</sup>–10<sup>15</sup> Outlook on Technical & Economic Parameters Improvement for VVER Nuclear Fuel by Means of Partial Introduction of Thorium into the Nuclear Fuel Cycle  
*Bobrov E.V., NRC Kurchatov Institute*
- 10<sup>15</sup>–10<sup>50</sup> Studies Aimed to Substantiate the High Temperature Nuclear Technology Based on Fast Sodium-Cooled Reactor for Hydrogen Generation and Other Innovative Applications.  
*Kuzina Yu.A., SNC RF IPPE*
- 10<sup>50</sup>–11<sup>20</sup> **Coffee break**
- 11<sup>20</sup>–11<sup>50</sup> A Power Engineering Complex with HTGC Reactor Unit for Hydrogen Generation  
*Fateev S.A., OKBM Afrikantov JSC*
- 11<sup>50</sup>–12<sup>10</sup> Experimental Studies of Sodium Boiling in Accident Modes with a Model Fuel Assembly for Fast Reactor  
*Sorokin A.P., SNC RF IPPE*
- 12<sup>10</sup>–12<sup>30</sup> Application of a Virtual Power Unit for Designing a Fast Reactor NPP  
*Ushatikov A.S., OKBM Afrikantov JSC*
- 12<sup>30</sup>–13<sup>00</sup> A Standalone Passive Heat Removal System for VVER Primary Circuit: Peculiarities of Actuation and Operation  
*Sviridenko I.I., Sevastopol State University*
- 13<sup>00</sup>–14<sup>30</sup> **Discussion**  
**Section summing up**

## **Subsection 2.2. Construction of new nuclear power units**

*Chairman: Barinov A.V., Capital Projects Implementation Affiliate,  
Rosenergoatom Concern JSC*

*Co-Chairman: Baryshev A.V., Capital Projects Implementation Affiliate,  
Rosenergoatom Concern JSC*

Building 1, 6<sup>th</sup> floor, room 603

**May 23<sup>rd</sup> Wednesday**

**14<sup>10</sup>–14<sup>20</sup>**

### **Session opening**

*Barinov A.V., Rosenergoatom Concern JSC*

**14<sup>20</sup>–15<sup>00</sup>**

Improvement of Construction Cost & Terms Management  
Efficiency: TCM NC. Cost & Terms Management Based on the  
Industry-wide Digital Platform

*Stepaev A.N., PE OCKS of the State Corporation Rosatom*

**15<sup>00</sup>–15<sup>20</sup>**

Experimental Study of Performance of the Passive Safety Systems  
for Modern VVER NPP Designs

*Morozov A.V., SNC RF IPPE*

**15<sup>20</sup>–15<sup>50</sup>**

Experience Gained with Project Management (Example of  
Leningrad-II NPP Construction )

*Vagner V.A., Capital Projects Implementation Affiliate,  
Rosenergoatom Concern JSC*

**15<sup>50</sup>–16<sup>20</sup>**

### **Coffee break**

**16<sup>20</sup>–16<sup>40</sup>**

Methodology for Safety Class Justification for Systems

*Chaban O.G., EC ASE JSC*

**16<sup>40</sup>–17<sup>00</sup>**

Informational Support to Capital Construction Processes

*Reberger A.M., Rosenergoatom Concern JSC*

**17<sup>00</sup>–17<sup>20</sup>**

Methodology for Safety Class Justification for NPP Systems and  
Components

*Ershov G.A., EC ASE JSC*

**17<sup>20</sup>–17<sup>40</sup>**

Methodology for NPP Readiness Analysis

*Nikolaev F.V., EC ASE JSC*

**17<sup>40</sup>–18<sup>10</sup>**

### **Discussion**

### **Section summing up**

**May 24<sup>th</sup> Thursday**

**09<sup>00</sup>–09<sup>10</sup>**

### **Session resumption**

*Barinov A.V., Rosenergoatom Concern JSC*

- 09<sup>10</sup>–09<sup>40</sup> Advanced Technologies for Transformation of Weak Soils  
*Chesnokov G.V., “Nilgraphite” JSC*
- 09<sup>40</sup>–10<sup>00</sup> Regarding Calculations of Nuclear Reactor Vessel Bottoms under Thermal & Mechanical Loads  
*Pukhliy V.A., Sevastopol State University*
- 10<sup>00</sup>–10<sup>20</sup> Calculation of Aircraft Crash on External Containment of NPP Reactor Building with Foundation Yielding Taken into Account  
*Modestov V.S., St.Petersburg SPU*
- 10<sup>20</sup>–10<sup>40</sup> Nuclear District Heating in Russia – The Experience Available, Capacities of the Industry, Deployment Challenges  
*Boldyrev V.M., International Union of Veterans of Nuclear Power Industry*
- 11<sup>00</sup>–11<sup>30</sup> Coffee break**
- 11<sup>30</sup>–12<sup>00</sup> A Multi-Purpose Nuclear Power Unit of 75 MWe Capacity  
*Khorasanov G.V., NRNU MEPhI*
- 12<sup>00</sup>–12<sup>30</sup> Optimization of Air Conditioning Costs by Applying the Universal Climate Control Units with Air Cooler Operating in the Indirect Evaporation Cycle  
*Shafikov R.T., GMZ “Khimmarsh” JSC*
- 12<sup>30</sup>–14<sup>30</sup> Discussion  
Section summing up  
Coffee break**

## Subsection 2.3. Commissioning of new nuclear power plants

Chairman: *Katsman A.M., Rosenergoatom Concern JSC*

### Topical area 2.3.1. Nuclear power units commissioning experience

Co-Chairman: *Deriy V.P., Atomtchenergo JSC*

The Module building, 2<sup>nd</sup> floor, Room 211

May 23<sup>rd</sup> Wednesday

- 14<sup>10</sup>–14<sup>20</sup>**      **Session opening**  
*Katsman A.M., Rosenergoatom Concern JSC*
- 14<sup>20</sup>–14<sup>50</sup>      The Use of Startup & Commissioning Works Experience for Enhancement of New Nuclear Unit Designs  
*Kormilitsyn A.A., Sychugin V.I., Atomtchenergo JSC*
- 14<sup>50</sup>–15<sup>30</sup>      Increase of Economic Efficiency of New NPPs Operation  
*Sukhorukov Yu.G., Smolkin Yu.V., Sokolov K.V., “SPA CKTI” CJSC*
- 15<sup>30</sup>–16<sup>00</sup>**      **Coffee break**
- 16<sup>00</sup>–16<sup>25</sup>      Generalization of the Experience Gained with BN-800 Reactor Unit Startup for Justification of Thermohydraulic Parameters for Normal Operation Modes  
*Fadeev I.D., OKBM Afrikantov JSC*
- 16<sup>25</sup>–16<sup>50</sup>      The Strategy for Diagnostics Support to Startup & Commissioning Works at New Power Unit Sites  
*Rachkov V.L., Atomtchenergo JSC*
- 16<sup>50</sup>–17<sup>15</sup>      Design Features and Issues to Address during Startup & Commissioning Works at Essential and Auxiliary Equipment of Novovoronezh-II Unit 1 Turbine Hall  
*Pozdnyakov A.V., Atomtchenergo JSC*
- 17<sup>15</sup>–17<sup>40</sup>      Experience of Mooring Tests of Turbine Compartment Process Systems and Fuel Reloading Equipment at the Pilot Floating Nuclear Power Unit  
*Kanakov V.Yu., Aliev R.R., Atomtchenergo JSC*
- 17<sup>40</sup>–18<sup>00</sup>**      **Discussion**  
**Section summing up**



## Topical area 2.3.2. Enhancement of APCS reliability and cyber-security

Co-Chairman: Antipov S.I., RASU JSC

The Module building, 2<sup>nd</sup> floor, Room 211

May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>10</sup>**     **Session opening**  
*Katsman A.M., Rosenergoatom Concern JSC*
- 09<sup>10</sup>–09<sup>50</sup>     Nuclear Magnetic Flowmeters-Relaxometers to Monitor the Flow and State of Liquid Cooling Systems.  
*Davydov V.V., St. Petersburg State Polytechnic University*
- 09<sup>50</sup>–10<sup>30</sup>     Testing of In-Core Monitoring Information Diagnostics System at Novovoronezh-II NPP Unit 1  
*Semenikhin A.V., Novovoronezh branch of Atomtechenergo JSC*
- 10<sup>30</sup>–11<sup>10</sup>     Improvement of Configuration of Automated Process Control System at a Nuclear Unit  
*Terekhov D.V., Novovoronezh NPP*
- 11<sup>10</sup>–11<sup>40</sup>**     **Coffee break**
- 11<sup>40</sup>–12<sup>20</sup>     Provision of Computer Security of Automated Systems Based on Data-Remove Method  
*Kolodenkova A.E. , Samara State University,  
Korobkin V.V., Research institute MVS UFU*
- 12<sup>20</sup>–13<sup>00</sup>     Cybersecurity of NPP APCS. Sets (Stands) and Methods for Analysis of APCS Security  
*Babayev D.I. VNIIAES JSC*
- 13<sup>00</sup>–13<sup>40</sup>     Improving the cybersecurity of APCS by means of operating analysis and monitoring the state of information security  
*Domukhovskiy N.A. Ural Center of Security Systems, LLC*
- 13<sup>40</sup>–14<sup>30</sup>**     **Discussion**  
**Section summing up**  
**Coffee break**

## SECTION 3. NUCLEAR POWER ECONOMICS AND INFORMATION TECHNOLOGIES

### Subsection 3.1. Nuclear power economics

Chairman: Migalin S.A., Rosenergoatom Concern JSC  
Co-Chairman: Demidova L.N., Rosenergoatom Concern JSC

Building 1, 2<sup>nd</sup> floor, room 204 (the Crisis Center)

May 23<sup>rd</sup> Wednesday

- 14<sup>00</sup>–14<sup>05</sup> Session opening**  
*Migalin S.A., Rosenergoatom Concern JSC*
- 14<sup>05</sup>–14<sup>25</sup> Development of Business Environment: World Trends and Changes in State Corporation Rosatom  
*Lyakhova E.V., State Corporation Rosatom*
- 14<sup>25</sup>–14<sup>45</sup> Strategy of Development of State Corporation Rosatom  
*Ermakov I.A., State Corporation Rosatom*
- 14<sup>45</sup>–15<sup>00</sup> System of Operational Efficiency Management in the Electric Power Division, the Main Strategic Objectives and Indicators of its Achievement  
*Migalin S.A., Rosenergoatom Concern JSC*
- 15<sup>00</sup>–15<sup>15</sup> Specific Features of Rosenergoatom Operation at the Market of Power  
*Khvalko A.A., Rosenergoatom Concern JSC*
- 15<sup>15</sup>–15<sup>30</sup> Planning of Costs for Maintenance and Repair of NPP Equipment and Systems  
*Osetskaya M.M., ANO DPO Technical Academy of Rosatom*
- 15<sup>30</sup>–15<sup>45</sup> Economics of NPPs with Fast Reactors: Long-Term Ensuring of Competitiveness  
*Tolstoukhov D.A., Panov S.A., Private institution ITCP PRORYV*
- 15<sup>45</sup>–16<sup>00</sup> Economic Effects from Introduction of Innovative Management Models Based on Stakeholder Approach and Network Forms of Business Organization.  
*Smirnova L.S., NRC Kurchatov Institute*
- 16<sup>00</sup>–16<sup>30</sup> Coffee break**
- 16<sup>30</sup>–16<sup>45</sup> Centralization of Heat Sales Activities of Rosenergoatom: a Strategy for Improving Economic Efficiency of the Heat Sales Activities  
*Polozov A.G., Rosenergoatom Concern JSC*

- 16<sup>45</sup>–17<sup>00</sup> Enhancing the Competitiveness of Nuclear Energy In The Long Term Perspective as a Tool for Diversifying Energy Mix and Addressing Environmental Problems  
*Veselov F.V., Energy Research Institute of the Russian Academy of Sciences*
- 17<sup>00</sup>–17<sup>15</sup> Assessment of Long-Term Development Risks at the Example of Predictive Modelling of Feasibility Indicators of the NPP Operating Company  
*Gurin A.V., NRC Kurchatov Institute*
- 17<sup>15</sup>–17<sup>30</sup> Feasibility Model of Efficiency Assessment of NPP Life Cycle with Different Fuel Production Scenarios  
*Koltun O.V., VNIIAES JSC*
- 17<sup>30</sup>–17<sup>45</sup> Effective Strategy for Management of Liquid Radioactive Waste in Federal Property Accumulated At Kola NPP as a Method of Reduction Electricity Production Costs  
*Serebrenikova M.S., Kola NPP*
- 17<sup>45</sup>–18<sup>00</sup> Discussion**  
**Section summing up**

### Subsection 3.2. Information technologies for the nuclear power

*Chairman: Migalin S.A., Rosenergoatom Concern JSC*

*Co-Chairman: Demidova L.N., Rosenergoatom Concern JSC*

Building 1, 2<sup>nd</sup> floor, room 204 (The Crisis Center)

May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>10</sup>**      **Session opening**  
*Migalin S.A., Rosenergoatom Concern JSC*
- 09<sup>10</sup>–09<sup>25</sup>      State Corporation Rosatom – Supplier of Digital Products  
*Popov S.G., State Corporation Rosatom*
- 09<sup>25</sup>–09<sup>40</sup>      Directions of Digitalization in State Corporation Rosatom  
*Chistyakova A.V., State Corporation Rosatom*
- 09<sup>40</sup>–10<sup>10</sup>      Elaboration of Digital NPP Operation Template  
*Shalnov O.E., Rosenergoatom Concern JSC*  
Establishment of Data Processing Center for Digital Products  
*Nemchenkov S.N., Rosenergoatom Concern JSC*  
Use of Operating Experience  
*Mets A.A., Rosenergoatom Concern JSC*
- 10<sup>10</sup>–10<sup>30</sup>      Integrated Real-Time System for Monitoring and Reporting  
of Process Parameters and Modes of NPP Operation in  
Rosenergoatom in Failure Safe and Accident Resistant Design  
*Lysachev M.N., Consyst-OS JSC*
- 10<sup>30</sup>–10<sup>45</sup>      Automated System for Control of Technical Documentation for  
Documentation Support to Safe Operation and Maintenance of NPP  
Units  
*Frolov F.V., Rosenergoatom Concern JSC*
- 10<sup>45</sup>–11<sup>05</sup>**      **Coffee break**
- 11<sup>05</sup>–11<sup>20</sup>      Digital energy for Rosenergoatom Concern JSC  
*Andreeva L.V., Rosenergoatom Concern JSC*
- 11<sup>20</sup>–11<sup>35</sup>      Application of Modern Data Flow Processing Technologies in APCS  
*Belousov P.A., National Research Nuclear University MEPhI*
- 11<sup>35</sup>–11<sup>50</sup>      Use of Digital Image Processing Methods to Determine the Range  
of Object Fluctuations  
*Drumov I.V., OKBM Afrikantov JSC*
- 11<sup>50</sup>–12<sup>05</sup>      A System of In-Core Monitoring Operating Data Storage and  
Processing. Outlook and Potential  
*Khalizov M.V., NRC Kurchatov Institute*

- 12<sup>05</sup>–12<sup>20</sup> Implementation of Computerized Training and Management of Qualification of Operating Personnel in the Field of Nuclear and Radiation Safety  
*Shubovsky D.A., WANO-MC*
- 12<sup>20</sup>–12<sup>30</sup> **Coffee break**
- 12<sup>30</sup>–12<sup>45</sup> Global Trends in Development and Research on Modern Information Technologies to Improve Production Efficiency and Safety  
*Doschenko S.A., Gartner Executive Programs - Russia*
- 12<sup>45</sup>–13<sup>00</sup> Global ICT market trends  
*Macedonskiy S.N., Forrester Research CIS&Baltics*
- 13<sup>00</sup>–13<sup>15</sup> Application of New IT Technologies in Production (Practical Examples)  
*Khlopov N.M., The Hinge Ideas, Moscow*
- 13<sup>15</sup>–13<sup>30</sup> **Section summing up**  
**Coffee break**

## SECTION 4. INTERNATIONAL COOPERATION FOR NUCLEAR SAFETY

*Chairman: Konstantinov N.I., Rosenergoatom Concern JSC*  
*Co-Chairperson: Ivanova N.Yu., Rosenergoatom Concern JSC*  
*Facilitator: Sokolov Yu.A., SC Rosatom*

Building 2, Conference hall

May 23<sup>rd</sup> Wednesday

- 14<sup>00</sup>–14<sup>10</sup>**      **Session opening**  
*Konstantinov N.I., Rosenergoatom Concern JSC*  
*Topic 1: Provision support to new operating organizations*
- 14<sup>10</sup>–14<sup>35</sup>      The Milestones Approach in Nuclear Power Infrastructure  
Development. IAEA support to newcomer countries  
*Kovachev M., NE / IAEA*
- 14<sup>35</sup>–15<sup>00</sup>      WANO New Unit Assistance Programme  
*Polyakov A., WANO-London*
- 15<sup>00</sup>–15<sup>25</sup>      Capacity Building in the Countries Embarking on a Nuclear Power  
Programme  
*Chernyakhovskaya Y., Rusatom Service JSC*
- 15<sup>25</sup>–15<sup>50</sup>      EDF Support to Newcomers  
*Camarcat N., EDF Engineering and New Nuclear Projects, France*
- 15<sup>50</sup>–16<sup>10</sup>**      **Discussion (Topic 1)**
- 16<sup>10</sup>–16<sup>40</sup>**      **Coffee break**  
  
*Topic 2: International and regional initiatives for safety*
- 16<sup>40</sup>–17<sup>10</sup>      What We Have Learnt about Operational Safety from Recent OSART  
Missions  
*Jiang F., NS / IAEA*
- 17<sup>10</sup>–17<sup>40</sup>      EDF International cooperation for safety  
*Maillart H., EDF, France*
- 17<sup>40</sup>–18<sup>00</sup>**      **Discussion**  
**Summing up**

May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>25</sup> Special Safety Reassessments (Stress-Tests) of Belorussian NPP  
*Valeev R.Sh., SE Belorussian NPP, Ostrovets*
- 09<sup>25</sup>–09<sup>50</sup> WANO Peer Review Programme  
*Schelik, Yury, WANO Moscow Center*
- 09<sup>50</sup>–10<sup>15</sup> Organization of Support to Operating Power Units and New Builds  
Associated in WANO MC  
*Bojkovský R., WANO Moscow Centre / Mochovce NPP*
- 10<sup>15</sup>–10<sup>40</sup> **Discussion (Topic 2)**
- 10<sup>40</sup>–11<sup>10</sup> **Coffee break**  
**Overview of poster presentations**  
*Topic 3: Support to decommissioning activities through international cooperation*
- 11<sup>10</sup>–11<sup>40</sup> Decommissioning of Nuclear Facilities: Outlook and challenges  
*Glorennec C., NE / IAEA*
- 11<sup>40</sup>–12<sup>10</sup> International Cooperation of Leningrad NPP in the  
Decommissioning Area  
*Rakhuba A.Yu., Leningrad NPP*
- 12<sup>10</sup>–12<sup>30</sup> **Discussion (Topic 3)**
- 12<sup>30</sup>–13<sup>00</sup> **Overview of poster presentations**
- 13<sup>00</sup>–13<sup>30</sup> **Voting for the best section report**
- 13<sup>30</sup>–14<sup>00</sup> **Discussion**  
**Section summing up**
- 14<sup>00</sup>–14<sup>30</sup> **Coffee break. Drafting the section overview presentation for the  
plenary session**

**Poster presentations:**

- Design Informed WANO Peer Reviews  
*Bazarev D.N., WANO-MC*
- Participation of Paks NPP in WANO activities in 2017  
*Hadnagy L., MVM Paks NPP*

## SECTION 5. HUMAN RESOURCE FOR THE NUCLEAR POWER

### Subsection 5.1. Human resource for the nuclear power

*Chairman: Gudin S.A., Rosenergoatom Concern JSC*

*Co-Chairman: Aksinenko S.P., VNIIAES JSC*

The Module building, 3<sup>rd</sup> floor, rooms 317/1, 2, meeting room

May 23<sup>rd</sup> Wednesday

#### 14<sup>00</sup>–14<sup>05</sup> **Session opening**

*Interaction with higher education institutions and students training*

14<sup>05</sup>–14<sup>20</sup> Forecast and Provisions to Meet the Demand in Specialist Operators of BN-type NPPs (BN-600, BN-800, BN-1200)  
*Tashlykov O.L., Ural Federal University*

14<sup>20</sup>–14<sup>40</sup> AGILE: Engineering of the Future  
*Kuritsyn D.B., EC ASE JSC*

14<sup>40</sup>–14<sup>55</sup> Youth Policy of the Engineering Division  
*Fokin K.B., EC ASE JSC*

14<sup>55</sup>–15<sup>05</sup> Personnel Recruitment Activities in CEZ  
*Bila N., WANO MC / Temelin NPP*

*Personnel motivation.*

*Personnel motivation tools as impetus towards safe performance*

15<sup>10</sup>–15<sup>25</sup> Intangible Motivation. Development of a Commitment to Safety amongst the Division Employees  
*Kosareva I.V., Novovoronezh NPP*

15<sup>25</sup>–15<sup>45</sup> Material Motivation of Employees Aimed at Ensuring NPP Safety  
*Kovalev A.V., Rosenergoatom Concern JSC*

15<sup>45</sup>–16<sup>00</sup> Tools for Motivation of Personnel Sent to Foreign NPPs by ROSATOM.  
*Kvasha A.V., Rosenergoatom Concern JSC*

#### 16<sup>00</sup>–16<sup>20</sup> **Coffee break**

*Interaction with higher education institutions and students training*

16<sup>20</sup>–16<sup>40</sup> Establishment of a Rosenergoatom Strategic Reserve Pool to Include Higher Education Institution Graduates  
*Shapovalova I.A., Rosenergoatom Concern JSC*

16<sup>40</sup>–16<sup>55</sup> Organization of University Training for NPPs Using a Full-Scope Simulator  
*Volman M.A., FSBEI HE Ivanovo State Energy University n.a. V.I. Lenin*



- 16<sup>55</sup>–17<sup>10</sup> Implementation of Practice-Oriented Training of Specialists for Rosatom Foreign Projects in the Resource Center of NRNU MEPhI  
*Bublikova I.A., Volgodonsk Engineering Institute – branch of NRNU MEPhI*
- 17<sup>10</sup>–17<sup>25</sup> Training of Foreign Students in Obninsk Institute of Atomic Energy of the NRNU MEPhI: Experience and Problems  
*Leskin S.T., Slobodchuk V.I., Chistozvonova E.A. Obninsk Institute of Atomic Energy (OIAE NRNU MEPhI)*
- 17<sup>25</sup>–17<sup>40</sup> International Inter-University Cooperation in Support to Implementation of Rosatom Foreign Projects (NPPs, ICAE) and Promotion of Innovative Nuclear Technologies  
*Filipyev I.S., Karmanov F.I., Artisiuk V.V., ANO DPO Rosatom Technical Academy; Karezin V.V., State Corporation Rosatom*

**17<sup>40</sup>–18<sup>00</sup>** **Discussion**  
**Summing up**

**May 24<sup>th</sup> Thursday**

*Professional training of domestic and foreign NPP personnel*

- 09<sup>00</sup>–09<sup>20</sup>** **Session resumption**
- 09<sup>30</sup>–09<sup>50</sup> Particularities of Ruppur NPP Personnel Training at a Russian Reference NPP in Operation  
*Kritsky R.O., Rosenergoatom Concern JSC*
- 09<sup>50</sup>–10<sup>15</sup> Russian Experience with Newcomer Countries Training in Nuclear Infrastructure Issues Performed Jointly with the IAEA in the Facilities of Rosatom Technical Academy  
*Ulanov D.V., State Corporation Rosatom, Yunikova A.V., Andryushin I.I., ANO DPO Rosatom Technical Academy*
- 10<sup>15</sup>–10<sup>45</sup> Training of the Foreign Customer Personnel: Basic Courses for the Plant Owner Personnel  
*Podolyakin D.P., Ponomarenko A.A., Shulepova N.A., ANO DPO Rosatom Technical Academy*
- 11<sup>10</sup>–11<sup>30</sup> Training of International Leaders for the Nuclear Industry: Experience of Joint Russia-IAEA Schools in Nuclear Management  
*Filipyev I.S., Karmanov F.I., Artisiuk V.V., ANO DPO Rosatom Technical Academy*
- 11<sup>00</sup>–11<sup>30</sup>** **Coffee break**

- 11<sup>30</sup>–11<sup>45</sup> Development of Internet-based Glossary of Nuclear Terms for Training of Foreign Specialists  
*Varseev V.V., ANO DPO Technical Academy of Rosatom*
- 11<sup>45</sup>–12<sup>00</sup> Use of Scientific Internship Format as a Tool for Promotion of HTGCR Technological Platform to External Markets  
*Dyachenko A.I., Artisyuk V.V., ANO DPO Rosatom Technical Academy;*  
*Ponomarev-Stepnoy N.N., Alexeev S.V., Rosenergoatom Concern JSC*
- 12<sup>00</sup>–12<sup>30</sup> **Overview of poster presentations**
- 12<sup>30</sup>–13<sup>00</sup> **Discussion**  
**Section summing up**

## Subsection 5.2. Use of veterans' experience and expertise. Tutorship

Chairman: *Markelov N.I., Interregional Nonprofit Organization for Rosenergoatom Veterans (MOOVK)*

Co-Chairman: *Simagin A.B., Interregional Nonprofit Organization for Rosenergoatom Veterans (MOOVK)*

Building 2, 3<sup>rd</sup> floor, right wing

### May 23<sup>rd</sup> Wednesday

- 14<sup>00</sup>–14<sup>15</sup>**     **Session opening. Welcoming address**  
*Cherkasov V.G., MOOVK - Rosenergoatom*
- 14<sup>15</sup>–14<sup>45</sup>     Tutorship as the Fundamental Principle to Ensure Succession in  
NPP Safe Operation Field  
*Dumshev V.G., Kalinin NPP regional division of MOOVK*
- 14<sup>45</sup>–15<sup>15</sup>     Use of Operating Experience in Training of NPP Personnel  
*Mikheev M.I., Smolensk NPP regional division of MOOVK*
- 15<sup>15</sup>–15<sup>45</sup>     Human factor in construction of nuclear facilities  
*Rukhman G.S., Smolensk NPP regional division of MOOVK*
- 15<sup>45</sup>–16<sup>15</sup>**     **Coffee break**
- 16<sup>15</sup>–16<sup>45</sup>     Some Aspects of Chernobyl Accident  
*Patrakov A.I., Smolensk NPP regional division of MOOVK*
- 16<sup>45</sup>–17<sup>15</sup>     Assessment of effectiveness of NPP upgrading activities  
*Fiantsev V.S., MOOVK-Rosenergoatom*
- 17<sup>15</sup>–18<sup>00</sup>**     **Discussion**  
**Summing up**

### May 24<sup>th</sup> Thursday

- 09<sup>00</sup>–09<sup>30</sup>     Leningrad NPP Today and Tomorrow  
*Karrask M.P., Leningrad NPP regional division of MOOVK*
- 09<sup>30</sup>–10<sup>00</sup>     Experience of Rational Water Usage at Leningrad NPP  
*Oleynik V.K., Leningrad NPP regional division of MOOVK*
- 11<sup>00</sup>–11<sup>30</sup>     Veterans the Environment Defenders Advocating for Nuclear Power  
*Terekhov Yu.L., Balakovo NPP regional division of MOOVK*
- 11<sup>30</sup>–12<sup>00</sup>     Experience of Implementation of the Project «Kola Power Bridge»,  
Export of Excess Power from Kola NPP into the Nordic Power  
System “Nordel”  
*Vishnyakov V.Z., Kola NPP regional division of MOOVK*

- 12<sup>00</sup>–12<sup>30</sup> Full-scale automated coolant leak detection system (FSACLDS)  
*Yurkov M.V., Smolensk NPP regional division of MOOVK*
- 12<sup>30</sup>–13<sup>00</sup> Experiences and Lessons Learned from Operation of BN-600  
Nuclear Power Unit  
*Kiselev S.V., Beloyarsk NPP regional division of MOOVK*
- 13<sup>00</sup>–14<sup>30</sup> **Coffee break**
- 14<sup>30</sup>–15<sup>30</sup> **Discussion**  
**Section summing up**

**Subsection 5.3. Transfer of international experience and traditions to the youth**  
*Chairman: Saraev Yu.P., International Union of Veterans of Nuclear Power Industry (IUV NPI)*  
*Co-Chairman: Kuleshov I.I., International Union of Veterans of Nuclear Power Industry (IUV NPI)*

Building 2, 3<sup>rd</sup> floor, right wing

**May 23<sup>rd</sup> Wednesday**

- 14<sup>10</sup>–14<sup>20</sup> **Session opening**  
*Saraev Yu.P., IUV NPI / Rosenergoatom Concern JSC*
- 14<sup>20</sup>–15<sup>00</sup> Information on IUV NPI Activities over the Period from 2010 (the year of establishment) to 2018
- 15<sup>20</sup>–16<sup>00</sup> Reports
- 16<sup>00</sup>–16<sup>30</sup> **Coffee break**
- 16<sup>30</sup>–17<sup>00</sup> Opening of the demonstration stand (within the Exhibition)
- 17<sup>00</sup>–18<sup>00</sup> Reports
- 18<sup>00</sup>–18<sup>30</sup> **Discussion**  
**Summing up**

**May 24<sup>th</sup> Thursday**

- 09<sup>00</sup>–10<sup>00</sup> Information on IUV NPI Activities over the Period from 2010 (the year of establishment) to 2018
- 10<sup>05</sup>–11<sup>20</sup> Reports
- 11<sup>20</sup>–11<sup>50</sup> **Coffee break**
- 13<sup>00</sup>–14<sup>30</sup> **Discussion**  
**Section summing up**

## Subsection 5.4. Young nuclear engineers and safe operation of NPPs

*Chairman: Kushnarev S.V., Nuclear Society of Russia*

*Co-Chairman: Kirichenko A.M., WANO Moscow Center*

Building 1, 15<sup>th</sup> floor, room 1509/1511

### May 23<sup>rd</sup> Wednesday

- 14<sup>10</sup>-14<sup>20</sup>**     **Session opening**  
*Kushnarev S.V., Nuclear Society of Russia*
- 14<sup>20</sup>-15<sup>00</sup>     Meeting of young nuclear engineers with Rosenergoatom top management and NPP Directors
- 15<sup>00</sup>-16<sup>50</sup>     Plenary on “Exchange by Best International Practices in NPP Safe Operation and Involvement of Young People”
- 16<sup>50</sup>-17<sup>20</sup>**     **Coffee break**
- 18<sup>00</sup>-18<sup>30</sup>**     **Discussion**  
**Summing up**

### May 24<sup>th</sup> Thursday

- 09<sup>00</sup>-10<sup>00</sup>     Plenary on “Exchange by Best International Practices in NPP Safe Operation and Involvement of Young People” (cont’d)
- 10<sup>05</sup>-11<sup>20</sup>     Meeting of young nuclear engineers with nuclear power industry veterans: evolution of safety on the individual examples
- 11<sup>20</sup>-11<sup>50</sup>**     **Coffee break**
- 13<sup>00</sup>-14<sup>30</sup>**     **Discussion**  
**Section summing up**

## PLENARY SESSION / CONFERENCE CLOSING

Building 2, Conference hall

May 24<sup>th</sup> Thursday

09 <sup>00</sup> –14 <sup>00</sup>	Section sessions cont'd
10 <sup>30</sup> –11 <sup>00</sup>	Coffee break
14 <sup>00</sup> –14 <sup>30</sup>	Coffee break
14 <sup>30</sup> –15 <sup>30</sup>	Overview of the sections work Rapporteurs: the section chairmen <i>Dementiev A.A.</i> <i>Bezzubtsev V.S.</i> <i>Migalin S.A.</i> <i>Konstantinov N.I.</i> <i>Gudin S.A.</i> Summing up the results of the competition for the best section report The overall results of MNTK-2018, closing of the conference

## REFERENCE INFORMATION

### Organizational committee

Dementiev A.A.	Deputy Director General - Director for Production and NPP Operation, chairman of the Organizational committee
Konstantinov N.I.	Deputy Director General - Director for Business Development, vice-chairman of the Organizational committee
Teterin Yu.P.	Deputy Director for Production and NPP Operation – Director of Engineering Support Department, vice-chairman of the Organizational committee
Tukhvetov F.T.	Director General of VNIIAES JSC, vice-chairman of the Organizational committee
Gudin A.A.	Head of Administrative Support Office
Gudin S.A.	Director of Department for Staff Management, Labour Management and Personal Motivation
Ivanova N.Yu.	Head of Division for International Scientific & Technical Cooperation
Lebedev N.Yu.	Chief expert, Department for IT Projects Management and Integration
Lymar V.V.	Deputy Chief Accountant – Head of Office for Bookkeeping and Tax Accounting
Migalin S.A.	Deputy Director General – Director for Economy and Finances
Moskalev S.V.	Division head, Technology Affiliate, MNTK-2018 Administrator, coordinator of Organizational and Programme committees
Timonov A.V.	Director of Department for Communications and Public Relations
Churkin I.V.	Chief specialist, Department for IT Projects Management and Integration
Shalnov O. E.	Director of Department for IT Projects Management and Integration

### Programme committee

Shutikov A.V.	1st Deputy Director General for NPP Operation, chairman of the Programme committee
Bezzubtsev V.S.	Director for Technological Development, vice-chairman of the Programme committee
Ipatov P.L.	Deputy Director General – Director for Special Projects and Initiatives, vice-chairman of the Programme committee

Bystrikov A.A.	Head of Office for Channel & Fast Reactors Operation
Davidenko N.N.	Deputy Director General for Technological Development, VNIIAES JSC
Demidova L.N.	Director of Department for Economy and Controlling
Katsman A.M.	Deputy Director for Production & NPP Operation – Director of Department for Operational Readiness of New Build
Krupsky A.G.	Deputy Director for Production & NPP Operation – Director of Department for Plant Maintenance, Repair and Installation
Maximov Yu.M.	Deputy Director for Production & NPP Operation – Director of Department for Production Planning, Modernization and Lifetime Extension
Nikiforov Victor V.	Deputy Director – Head of Fire Safety Service, Technology Affiliate
Ponomarev-Stepnoy N.N.	Scientific Advisor to Director General
Sultanov R.M.	Deputy Director of Department for Engineering Support
Kharlampiev S.A.	Project manager, Division for International Scientific & Technical Cooperation
Khlebtsevich V.E.	Deputy Director for Production & NPP Operation – Director of Department for Emergency Preparedness and Radiation Protection
Chernikov O.G.	First Deputy Director for Production & NPP Operation – Director of Department for NPP Operation and Nuclear Fuel Management

**Exhibition organizer**

Belyakov O.A.	Head, NPP Operation Office, EREC JSC
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Simultaneous interpretation is provided at:

- plenary sessions
- (sub)section sessions 1.1.1, 1.2.4, 4

Subsecutive interpretation is provided at (sub)section sessions: 1.1.3, 1.2.1, 1.2.2, 1.2.3, 2.1, 2.2, 5.4

**Address of the Conference venue:**

Moscow, Ferganskaya str. 25

**Directions:**

“Vykhino” metro station, then by bus № 209, 4th stop (“Art School n.a. Balakirev”) or by route taxi № 209, 610