13TH INTERNATIONAL CONFERENCE ON WWER FUEL PERFORMANCE, MODELLING AND EXPERIMENTAL SUPPORT

15 to 21 September 2019, Sol Nesebar Resort, Nesebar, Bulgaria

Hosted by the Institute for Nuclear Research and Nuclear Energy – BAS,
in co-operation with the International Atomic Energy Agency

A G E N D A

14–15 September (Saturday – Sunday): Participants arrival and registration

15 September (Sunday evening): Welcome cocktail dinner at hotel Sol Nesebar

16 September (Monday), Hotel Conference Hall

09:00–11:00 **Morning session**

SESSION O **OPENING SESSION**

Chairpersons: *Lachezar Georgiev (INRNE-BAS), Dimitar Tonev (INRNE-BAS), Mikhail Veshchunov (IAEA), Yancho Yankov (Kozloduy NPP), Vladimir Molchanov (invited), Alexey Shishkin (JSC "TVEL")*

Opening and greetings:

Dimitar Tonev (INRNE-BAS), Lachezar Georgiev (INRNE-BAS), Mikhail Veshchunov (IAEA), Yancho Yankov (Kozloduy NPP), Alexey Shishkin (JSC "TVEL")

0.1. Dimitar Tonev NATIONAL CYCLOTRON CENTER AT THE INSTITUTE FOR NUCLEAR RESEARCH AND NUCLEAR ENERGY, *D. Tonev[1], N. Goutev[1], A. Demerdjiev[1], D. Dimitrov[1], A. Nikolov[2], A. Artinyan[1], E. Geleva[1], V. Pavlova[1], S. Genchev[1], M. Yavahchova[1], V. Bashev[1], M. Manolova[1], [1]INRNE-BAS, [2]Kozloduy NPP, Bulgaria*

0.2. Mikhail Veshchunov THE IAEA PROGRAMME ON NUCLEAR POWER REACTOR FUEL ENGINEERING AND THE COORDINATION RESEARCH PROJECT (CRP) ON ANALYSIS OF OPTIONS AND EXPERIMENTAL EXAMINATION OF FUELS FOR WATER-COOLED REACTORS WITH INCREASED ACCIDENT TOLERANCE (ACTOF), *M. Veshchunov, IAEA, Austria*

0.3. Vladimir Molchanov NUCLEAR FUEL FOR VVER REACTORS. DEVELOPMENT OVER THE PAST 20 YEARS, *V. Molchanov, invited lecturer, Russian Federation*

11:00–11:15 **Coffee break**

SESSION 1 **FUEL PERFORMANCE AND OPERATIONAL EXPERIENCE**

11:15–12:30 **Morning session**

Chairpersons: *Krassimir Kamenov, Stanislav Linhart*

1.1. Alexey Shishkin IMPROVING SAFETY AND EFFICIENCY OF NUCLEAR FUEL AS BASIS OF TVEL INTERNATIONAL R&D COOPERATION, *A. Shishkin, JSC "TVEL", Russian Federation*

1.2. Krasimir Kamenov EXPERIENCE OF TVSA-12 FUEL IMPLEMENTATION AT KOZLODUY NPP, *K. Kamenov, Ml. Milchev, Kozloduy NPP, Bulgaria*

1.3. Artem Morozov EXPERIENCE OF THE NUCLEAR FUEL OPERATION AT BALAKOVO NPP, *A.S. Morozov, Balakovo NPP, Russian Federation*

1.4. Jiři Zýbal FIVE YEARS OF OPERATIONAL EXPERIENCE WITH GD-2M+ FUEL, FUTURE PLANS AND PERSPECTIVES OF FUEL CYCLE AT DUKOVANY NPP*, M. Borovička, J. Zýbal, M. Dzurus, Dukovany NPP, ČEZ, a.s., Czech Republic*

12:30–14:00 **Lunch**

14:00–15:30 **Afternoon session**

Chairpersons*: Krassimir Kamenov, Vladimir Novikov*

1.5. Zhanna Liventseva NEW FUEL OF THE THIRD-PLUS-GENERATION WITH MODIFIED JA-PROFILE ENRICHMENT IN FUEL ASSEMBLY OF VVER-440., Z.Y. *Liventseva, A.A. Gagarinski, NRC "Kurchatov Institute", Moscow, Russian Federation*

1.6. Gábor Bóna MODIFIED FUEL TYPES TO BE INTRODUCED AT MVM PAKS NPP, HUNGARY, *G. Bóna, MVM Paks NPP, Hungary*

1.7. Jan Höglund PERFORMANCE OF THE WESTINGHOUSE VVER-1000 FUEL DESIGN, 2019 UPDATE, *J. Höglund[1], I. Kasperovich[2] ,[1]Westinghouse Electric Sweden AB, Sweden, [2]AtomRemontServices, Kiev Region, Ukraine*

1.8. Ulf Benjaminsson FUEL VIEW 3D - FUEL DISTORTION MEASUREMENT BASED ON 3D LASER TRIANGULATION TECHNOLOGY, *B. Andersson, U. Benjaminsson, H. Lapp, Westinghouse Electric Sweden AB, Sweden*

1.9. Björn Andersson MEASUREMENTS OF FUEL COMPONENTS BY MULTI FREQUENCY EDDY CURRENT TECHNIQUE – F-SECT, *B. Andersson, Westinghouse Electric Sweden AB, Sweden*

1.10. Akif Abdullayev CORE DESIGN EXPERIENCE WITH WESTINGHOUSE ELECTRIC SWEDEN FUEL IN UKRAINE VVER-1000 REACTORS. PRESENT STATE AND PROSPECTS, *A. Abdullayev, S. Soldatov, S. Maryochin, S. Ryabchikov, Nuclear Fuel Cycle Kharkiv Institute Physics and Technology, Ukraine*

15:45–16:00 **Coffee break**

16:00 –17:15 **Afternoon session (cont.)**

1.11. Roman Glushenkov RESEARCH OF POWER CHANGING MODES FOR TVSA OPERATION IN THE LOAD-FOLLOWING MODE, *R. Glushenkov SE "NNEGC "Energoatom", Kyiv, Ukraine*

1.12. Liudmyla Kravchenko NUCLEAR FUEL OPERATION AT UKRAINIAN VVER-1000 NPPS. NUCLEAR FUEL MANAGEMENT, *L. Kravchenko, SE "NNEGC "Energoatom", Kyiv, Ukraine*

1.13. Oleksandr Petrychuk OPERATING EXPERIENCE FEEDBACK ON THE USE OF MAST SIPPING SYSTEM AT KHMELNITSKY 1 & 2, *O. Petrychuk, Radiation Safety Department, Khmelnitsky NPP*

1.14. Lena Gunnarsson ADVANCEMENTS OF WESTINGHOUSE VVER-1000 FUEL MANUFACTURING CAPACITY, *L. Gunnarsson, C. Önneby, U. Benjaminsson, Westinghouse Electric Sweden AB, Sweden*

1.15. Ramani Anandapadmanaban FUEL MANAGEMENT EXPERIENCE AT KUDANKULAM NPP 1 & 2, *R. Anandapadmanaban, V.D. Ajith, David Nesaraj, Y.K. Pandey, G. Biswas, Nuclear Power Corporation of India Limited, Mumbai, India*

18:00–21:00 **Dinner**

17 September (Tuesday), Hotel Conference Hall

SESSION 2 IMPROVEMENT OF FUEL DESIGN AND OPERATION

09:00–10:30 Morning session

Chairpersons*: Ivan Vasilchenko, Carina Önneby*

2.1. Ivan Vasilchenko REVIEW OF PROBLEMS AND FEASIBILITIES FOR FURTHER IMPROVEMENT OF WWER CORE STRUCTURE, *I.N. Vasilchenko, S.A. Kushmanov, V.V. Vyalitsin, OKB "GIDROPRESS", Russian Federation*

2.2. Vladimir Novikov DESIGN, MANUFACTURING AND LOADING IN THE MIR REACTOR OF EXPERIMENTAL FUEL RODS WITH ACCIDENT TOLERANT FUEL, *V. Novikov at al., JSC "VNIINM", Moscow, Russian Federation*

2.3. Andrey Churkin EXPERIMENTAL STUDIES OF FUEL ASSEMBLIES COOLING IN LOSS-OF-COOLANT ACCIDENTS, *A.N Churkin., Y.A. Bezrukov, Y.B. Khripachev, A.S. Bogdanov, A.G. Karetnikov, S.I. Pavlov, OKB "GIDROPRESS", Russian Federation*

2.4. Aleksander Falkov IMPROVEMENT OF FUEL THERMOHYDRAULIC METHODOLOGY USING STATISTICAL APPROACH, *A.A. Falkov[1], V.E. Lukyanov[1], D.L. Shipov[1], O.N. Morozkin[2], [1]JSC "Afrikantov OKBM", N. Novgorod, [2]JSC "TVEL", Moscow, Russian Federation*

10:30-11:00 **Coffee break**

11:00–12:30 **Morning session (cont.)**

2.5. Dmitrii Chirkin THE FACTORS INFLUENCING ON THERMOMECHANICAL BEHAVIOR OF TVSA AND ITS MODIFICATIONS AT OPERATION**,** *A.I. Romanov, V.A. Panov, M.A. Samsonov, D.E. Chirkin, JSC "OKBM Afrikantov", Russian Federation*

2.6. Aleksander Simonov RESULTS FROM EXTENDED PILOT OPERATION OF GENERATION 3 FUEL ASSEMBLIES IN KOLA UNIT 4, *A. Simonov, Y. Polyakova, K. Marakulin, Kola NPP, Polyarnie Zori, Russian Federation*

2.7. Carina Önneby DEVELOPMENT OF A VVER-1000 FUEL DESIGN FOR TEMELIN NPPs, *C Önneby, J Höglund, Westinghouse Electric Sweden AB, Sweden*

2.8. Mykola Boychenko RECENT DEVELOPMENT AND QUALIFICATION ASPECTS OF THE WESTINGHOUSE ADVANCED LATTICE CODE PHOENIX-H FOR HEXAGONAL LATTICES ANALYSIS, *M. Boychenko, Harish Huria, Westinghouse Electric Company, USA*

2.9. Valerii Adeev UPGRADING OF CORE DESIGN SOFTWARE, *V. A. Adeev, Kola NPP*

12:30–14:00 **Lunch**

SESSION 3 **FUEL MODELLING AND EXPERIMENTAL SUPPORT**

14:00–15:30 **Afternoon session**

Chairpersons: *Kalin Lafchiev, Igor Evdokimov*

3.1. Paul Van Uffelen THE APPLICATION OF THE TRANSURANUS FUEL PERFORMANCE CODE TO VVER FUEL- AN OVERVIEW, *P. Van Uffelen[1], A. Schubert[1], Z. Soti[1], C. Győri[2], S. Boneva[3], Z. Hózer[4], L. Luzzi[5], P. Blair[6], M. Jonson[6], B. Hatala[7], J. Klouzal[8], M. Ieremenko[9], V. Peri[10], S. Bznuni[11], [1]European Commission, JRC, Karlsruhe, Germany, [2]Nuclear Consulting, Slovakia, [3]Bulgarian Academy of Sciences, Institute for Nuclear Research and Nuclear Energy, Bulgaria, [4]Centre for Energy Research (MTA EK), Hungarian Academy of Sciences, Hungary, [5]Politecnico di Milano, Italy, [6]Westinghouse Electric Sweden, Sweden, [7]VUJE Engineering, Design, and Research Organization, Trnava, Slovak Republic, [8]Institute for Nuclear Research, Řež, Czech Republic, [9]State Scientific and Technical Centre for Nuclear and Radiation Safety, Kyiv, Ukraine, [10]Fortum Power and Heat Oy, Finland, [11]Nuclear and Radiation Safety Center of Armenian Nuclear Regulatory Authority, Yerevan, Armenia*

3.2. Vladimir Tarasov THE MFPR/R CODE FOR MECHANISTIC MODELLING OF IRRADIATED NUCLEAR POWER REACTOR FUELS, *V.I. Tarasov, V.D. Ozrin, P.V. Polovnikov, V.E. Shestak, M.S. Veshchunov, Nuclear Safety Institute (IBRAE), Russian Academy of Sciences, Russian Federation*

3.3. Artem Borisov VALIDATION OF THE ENHANCED VERSION OF THE RTOP-CA CODE DESIGNED FOR MODELING THE FISSION PRODUCTS RELEASE FROM FAILED FUEL ROD TO THE COOLANT OF THE WWER PRIMARY CIRCUIT, *A. Borisov[1], V. Likhanskii[1], A. Sorokin[1], S. Ilyenko[2], A. Goryachev[2], [1]JSC "SRC RF TRINITI", Moscow, Troitsk, Russian Federation, [2]JSC "SSC RIAR", Dimitrovgrad, Russian Federation*

3.4. Olli Hyvönen MODELLING OF LOVIISA NPP FUEL RODS IN LOCA SCENARIOS WITH TRANSURANUS, *O. Hyvönen, Fortum Power and Heat Oy Ltd, Finland*

15:30-16:00 **Coffee break**

18:00–21:00 **Dinner**

18 September (Wednesday), Hotel Conference Hall

SESSION 3 **FUEL MODELLING AND EXPERIMENTAL SUPPORT (cont.)**

09:00–11:00 **Morning session**

Chairpersons: *Paul Van Uffelen, Vladimir Tarasov*

3.5. Artem Bokov CAUSES AND NATURE OF LEAKAGE OF VVER-1000 FA FUEL RODS EXAMINED BY JSC "SSC RIAR" IN 2016 – 2018, *E.A. Zvir, V.A. Zhitelev, A.V. Strozhuk, I.N. Volkova, A.A. Bokov, JSC "SSC RIAR", Dimitrovgrad, Russian Federation*

3.6. Stanislav Linhart MATERIAL RESEARCH OF ZIRCONIUM-BASED ALLOYS IRRADIATED AT TEMELIN NPP REACTOR CORE, *S. Linhart, M. Ševeček, J. Běláč, R. Řeháček, V. Starý, ALVEL, a.s., Brno, Czech Republic*

3.7. Vítězslav Matocha COMPLEX ANALYSIS OF HALDEN REACTOR PROJECT EXPERIMENTAL RESULTS IN SUPPORT OF FUEL ROD SAFETY AND RELIABILITY ASSESSMENTS, *V. Matocha, J. Klouzal, M. Dostál, ÚJV Řež a.s., Czech Republic*

3.8. Pavel Demyanov UO_2 AND UO_2-GD_2O_3 FUEL RODS OF VVER-1000 SIZE CHANGE MODELING, *P.G. Demyanov[1], V.V. Novikov[1], V.I. Kuznetsov[1], E.A. Zvir[2], V.A. Zhitelev[2], [1]JSC "VNIINM", Moscow, Russia, [2]JSC "SCC RIAR", Dimitrovgrad, Russian Federation*

3.9. Svetlana Arefinkina POSSIBILITY SUBSTANTIATION OF EXPERIMENTAL FE WITH ADVANCED FUEL TYPES BEHAVIOR INVESTIGATIONS AT IR-8 REACTOR IN CLOSEST TO FULL-SCALE CONDITIONS, *D.Yu. Erak, S.E. Arefinkina, V.A. Nasonov, V.V. Yakovlev, O.V. Mikhin, A.A. Sedov, Yu.E. Pesnya, V.V. Trofimchuk, A.N. Abramov, A.V. Babenko, NRC "Kurchatov Institute", Moscow, Russian Federation*

3.10. Vladimir Kuznetsov STUDY OF THE STRENGTH OF VVER-1000 FUEL RODS IN THE CONTROL OF THE POWER OFFSET USING THE OFFSET-POWER DIAGRAM, *V.V. Novikov[1], V.I. Kuznetsov[1], V.B. Lagovsky[1], V.V. Druzhin[1], P.E. Filimonov[2], S.P. Averianova[2], [1]SC VNIINM, [2]NRC "Kurchatov Institute", Moscow, Russian Federation*

11:00-11:15 **Coffee break**

11:15 –13:00 **Morning session (cont.)**

3.11. Kalin Lafchiev POST IRRADIATION EXAMINATIONS OF THREE TVEL FUEL RODS IRRADIATED IN RINGHALS NPP DURING THREE REACTOR CYCLES, *K.I. Lafchiev[a], K. D. Johnson[a], D. G. Jädernäs[a], A.Y Shevyakov[b], A.B. Dolgov[c], A.V. Ugryumov[c], [a]Studsvik Nuclear AB, Sweden, [b]JSC "VNIINM", Moscow, Russia, [c]JSC "TVEL", Moscow, Russian Federation*

3.12. Kyle Johnson MICROSTRUCTURAL AND CHEMICAL CHARACTERIZATION OF IRRADIATION EFFECTS IN CLADDINGS WITH DIFFERENT ALLOY COMPOSITIONS, *K. D. Johnson[a], K. I. Lafchiev[a], D. Jädernäs[a], O. Tengstrand[a], A.Y Shevyakov[b], A.B. Dolgov[c], A.V. Ugryumov[c] , [a]Studsvik Nuclear AB, Sweden, [b]JSC "VNIINM", Moscow, Russia, [c]JSC "TVEL", Moscow, Russia*

3.13. Anton Krupkin THE STRENGTH OF FUEL ROD FROM ALLOY Э110М IN TERMS OF THE POWER RAMP, *V.I. Kuznetsov[1], A.V. Krupkin[1], V.V. Novikov[1], B.I. Nesterov[1], E.A. Avdonina[1], A.G. Eshcherkin[2], A.I. Doldov[2], A.L. Izhutov[2], V.A. Ovchinnikov[2], [1]JSC "VNIINM", [2]JSC "SCC RIAR", Russian Federation*

3.14. Alexander Shevyakov E110M ALLOY FUEL ROD CLADDINGS IN-REACTOR TESTS IN WATER-COOLED REACTORS AND POST-IRRADIATION EXAMINATION RESULTS, *A.Yu. Shevyakov[1], V.A. Markelov[1], V.V. Novikov[1], N. S. Saburov[1], A. Yu. Gusev[1], V.F. Konkov[1], M.M. Peregud[1], V.I.*

Kuznetsov[1], B.I. Nesterov[1], V.A. Pudov[1], A.V. Strozhuk[2], I.N. Volkova[2], E.V. Chertopyatov[2], [1]JSC «VNIINM», Moscow, Russia, [2]JSC "SSC RIAR", Dimitrovgrad, Russian Federation

3.15. Vladimir Kuznetsov VERIFICATION OF THE START-3A CODE BASED ON LIFT-OFF TEST OF THE FUEL ROD WITH E110 CLADDING IN THE HALDEN REACTOR, *K.V. Loktaev[1], P.G. Demianov[1], A.V. Krupkin[1], V.I. Kuznetsov[1] V.V. Novikov[1], B.Yu. Volkov[2], [1]JSC "VNIINM", [2]IFE, Russian Federation*

3.16. Björn Andersson *DRY STORAGE OF SPENT NUCLEAR FUEL, B. Andersson, C. Anghel, M. Jinnestrand, Westinghouse Sweden, Sweden*

13:00–14:00 **Lunch**

14:00- 19:00 **Excursion**

19:00–21:30 **Dinner**

19 September (Thursday), Hotel Conference Hall

SESSION 4 **FUEL SAFETY AND QUALITY ASSURANCE**

09:00–10:30 **Morning session**

Chairpersons: *Jan Höglund, Katalin Kulacsy*

4.1. Katalin Kulacsy ON STEADY-STATE FUEL SAFETY ANALYSIS METHODOLOGIES, *K. Kulacsy, Hungarian Academy of Sciences Centre for Energy Research (MTA EK), Hungary*

4.2. Andrei Morozov EXPERIMENTAL INVESTIGATION OF BORIC ACID CRYSTALLIZATION PROCESS DURING THE COOLING OF WWER FUEL ASSEMBLIES IN CASE OF ACCIDENT, *A. Morozov, A. Shlepkin, A. Sahipgareev, State Scientific Centre of the Russian Federation – Institute for Physics and Power Engineering named after A.I. Leypunsky, Russian Federation*

4.3. Tage Tarkpea FUEL LEAKER IDENTIFICATION AND RECONSTITUTION AT THE SOUTH UKRAINE NPP, USING THE WESTINGHOUSE FUEL INSPECTION AND REPAIR EQUIPMENT (FIRE), *J. Höglund[1], T. Tarkpea[1], A. L. Arvaninov[2], S. V Povod[2], [1]Westinghouse Sweden, Sweden, [2]South Ukraine NPP, Ukraine*

4.4. María Olivera MATERIALS AND COATINGS TO IMPROVE THE PERFORMANCE OF PHWR CLADDINGS FOR NORMAL AND ACCIDENT CONDITIONS, *Maria Olivera Munoz, A. Bussolini, L. Alvarez, Fuel Engineering Department Constituyentes Atomic Center - National Atomic Energy Commission, Buenos Aires, Argentina*

10:30–11:00 **Coffee break**

SESSION P POSTER SESSION

11:00-12:30 Morning session (cont.)

Chairperson: *Mladen Mitev, Petya Vryashkova*

P.1. Marcin Kopeć DEBRIS FRETTING TESTS ON STANDARD AND COATED E110 CLADDING, *M. Kopeć[1], M. Malá[1], L. Cvrček[2], J. Krejčí[3], [1]Research Centre Řež, [2]Czech Technical University in Prague, [3]UJP PRAHA a.s., Czech Republic*

P.2. Pavel Polovnikov AN ADVANCED MECHANISTIC MODEL FOR LARGE PORES GROWTH AND COALESCENCE IN IRRADIATED FUELS UP TO VERY HIGH POROSITIES, *P.V. Polovnikov, V.I. Tarasov, M.S. Veshchunov, Nuclear Safety Institute (IBRAE), Russian Academy of Sciences, Moscow, Russian Federation*

P.3 Martina Malá MEASUREMENT OF OXIDE LAYER THICKNESS ON FUEL CLADDING, *M. Malá[1], M. Kopeć[1], Jakub Krejčí[2], [1]Research Centre Řež, [2]UJP PRAHA a.s., Czech Republic*

P.4. Roman Glushenkov CALCULATION AND ASSESSMENT OF FUEL PERFORMANCE PARAMETERS AT UKRAINIAN NPPS, *R. Glushenkov SE "NNEGC "Energoatom", Ukraine*

P.5. Kyung Min Kang SPENT FUEL POOL ACCIDENT ANALYSIS AND MANAGEMENT IN KOREA, *Kyung Min Kang, Kuyoung Jung, Korea Institute of Nuclear Safety, Daejeon, Korea*

P.6. Jenq-Horng Liang EFFECTS OF COMPOUNDING OPERATING PARAMETERS ON BURNUP CREDIT CRITICALITY ANALYSIS FOR WWER SPENT FUEL ASSEMBLIES, *Shang-Chien Wu[a], Der-Sheng Chao[b], Jenq-Horng Liang[a] , [a]Institute of Nuclear Engineering and Science, National Tsing Hua University, Taiwan, , [b]Nuclear Science and Technology Development Center, National Tsing Hua University. Taiwan*

P.7. Morteza Ansaripour SOME EXPERIENCES ON MODIFICATION OF MANUFACTURING OF CLADDING TUBE TO IMPROVE TEXTURE HETEROGENEITIES, *J. Salehi, M. Ansaripour, Soureh Co, AEOI, Isfahan-Iran*

P.8. Vera Bugaeva SEVEN YEARS OF VVER-440 GEN-3 FUEL PILOT RUN AT KOLA-4: BASIC RESULTS, *[1]V.V. Saprykin, [1]A.A. Gagarinskiy, [1]V.N. Bugaeva, [2]V.A. Adeev, [2]A.E. Panov, [2]I.S. Melenchuk, [1]NRC "Kurchatov Institute", Moscow, [2]Kola NPP, Russian Federation*

12:30–14:00 Lunch

SESSION 5 SPENT FUEL PERFORMANCE AND MANAGEMENT

14:00–15:30 Afternoon session

Chairpersons: *Surik Bznuni, Alexander Yordanov*

5.1. Alexander Yordanov DOSE RATE DISTRIBUTION OUTSIDE A CONTAINER FOR SPENT FUEL TRANSPORTATION, *A. Yordanov, Enpro Consult Ltd., Bulgaria*

5.2. Gennady Kobylyansky ANALYSIS OF VVER-1000 FUEL RODS ELONGATION UNDER THERMAL TESTS SIMULATING DRY STORAGE CONDITIONS, *G.P. Kobylyansky, A.O Mazaev, E.A. Zvir, P.A. Ilyin, A.V. Obukhov, JSC "SSC RIAR", Dimitrovgrad, Russia*

5.3. Surik Bznuni ASSESSMENT OF MCNP6 SHIELDING MODEL FOR WWER TYPE SPENT FUEL TRANSPORT SYSTEMS, *S. A. Bznuni[1], A. Ugujyan[2], A. Amirjanyan[1] , [1]Nuclear and Radiation Safety Center, [2]Yerevan State University, Yerevan, Armenia*

15:30–16:00 **Coffee break**

18:30-23:30 **Traditional Bulgarian Dinner**

20 September (Friday), Hotel Conference Hall

SESSION 6 **SPECIFIC ISSUES OF WWER-1000 FUEL RELIABILITY**

10:00 – 11:00 **Morning session**

Chairpersons: *Vladimir Molchanov, Mikhail Veshchunov*

6.1. Igor Evdokimov ON SPECIFIC GUIDELINES FOR WWER POWER REGULATION IN CASE OF A FUEL FAILURE DURING OPERATION, *I.A. Evdokimov, SRC RF TRINITI, Moscow, Troitsk, Russian Federation*

6.2. Nadezhda Filatova INVESTIGATION OF THE KINETICS OF NIOBIUM DISSOLUTION IN ZIRCONIUM, *N.K. Filatova, A.V. Golovin, A.A. Kabanov, V.V. Novikov, JSC "VNIINM", Moscow, Russian Federation*

6.3. Peter Kalinichev DETECTION OF FUEL WASHOUT FROM LEAKING FUEL RODS DURING OPERATION OF WWER POWER UNITS, *P.M. Kalinichev, I.A. Evdokimov, V.V. Likhanskii, A.G. Khromov, A.A. Kovalishin, M.N. Laletin, SRC RF TRINITI, Moscow, Troitsk, Russian Federation*

11:00 – 11:30 **Coffee break**

11:30 – 13:00 **Conference overall discussion and conclusions**

Chairpersons: *Mikhail Veshchunov, Alexey Shishkin, Krassimir Kamenov, Jan Höglund, Ivan Vasilchenko, Vladimir Molchanov Kalin Lafchiev, Igor Evdokimov, Paul Van Uffelen, Vladimir Tarasov, Katalin Kulacsy*

Conference closure: Dimitar Tonev