



INTERNATIONAL FRAMEWORK FOR NUCLEAR ENERGY COOPERATION INFRASTRUCTURE DEVELOPMENT WORKING GROUP

WORKSHOP ON NEW CHALLENGES FACING NUCLEAR REGULATORS

May 28-29, 2018

Haitham Saleh Abdulla ALSENAANI, Federal Authority for Nuclear Regulation

Haitham is a UAE National working as a Senior Specialist at the Federal Authority for Nuclear Regulation (FANR). He received a B.Sc. degree in Geological and Geophysical engineering from the University of Arizona Tucson, USA, in 2004, and a M.Sc. Degree in Safety and Risk Management from the Liverpool John Moores University Liverpool, UK, in 2012.

In 2010, Haitham joined FANR which was newly established around that time, where he began his career in site assessment in the nuclear safety department.

Once FANR received the Construction License Application (CLA) from ENEC, Haitham became heavily engaged with the review and assessment of the CLA for all four reactor units. There, he was responsible for the siting assessment of the second submitted construction license. After completing the evaluation of the construction licenses, Haitham achieved a technical specialist level where his attention moved towards reactor safety operations and organizational readiness. Currently, and as a subject matter expert, he is actively engaged in the evaluation of operation license application and operators training process as well as inspection.

Anna H. BRADFORD, U.S. Nuclear Regulatory Commission

Anna H. Bradford is the Deputy Director, Division of New Reactor Licensing, Office of New Reactors at the U.S. Nuclear Regulatory Commission. Ms. Bradford joined the U.S.NRC in 2000 in the Office of Nuclear Material Safety and Safeguards. Since that time, she has held positions in multiple offices in the agency, leading efforts in a wide range of areas such as low-level waste management and disposal, environmental reviews, fuel cycle facility licensing, small modular reactor licensing, and non-light water reactor policy issues. Prior to joining the NRC, Ms. Bradford worked at an engineering consulting firm supporting nuclear-related projects for the Department of Energy. Ms. Bradford has a Bachelor's degree in Mechanical Engineering from Virginia Tech, and a Master's degree in Environmental Engineering from Johns Hopkins University.

Alexey FERAPONTOV, Rostechnadzor

Alexey Ferapontov was born in Moscow in 1963. Mr. Alexey Ferapontov is a Deputy Chairman of Rostechnadzor (Russian regulatory body) in charge of all aspects of nuclear and radiation safety and security regulation in the peaceful use of atomic energy. He joined Rostechnadzor in 2003 as a Deputy Director of FSUE VO “Safety” - Rostechnadzor’s TSO. In 2008 was appointed a Deputy Chairman and in 2010 a State Secretary – Deputy Chairman of Rostechnadzor being responsible for legislative issues related to safety regulation. In 2014 he became a Deputy Chairman of Rostechnadzor for nuclear and radiation safety and security regulation. Mr. Ferapontov graduated from the Moscow Institute of Electronic Machine Building and the Russian State Open Technical University of Railways. PhD in Engineering.

Erastus GATEBE, Kenya Radiation Protection Board

Erastus Gatebe is an Environmental Chemist with over 15 years extensive experience in Research and Teaching at the university and is a registered Lead consultant with national environmental management authority. He is currently the Chairman of Kenya Radiation Protection Board which is the state regulator on nuclear and radiation safety. He also chairs the multiagency committee on Nuclear Security Guidance as well as Strategic Trade Control Working Group drafting the STC Bill. Previously, Prof. Gatebe chaired the adhoc inter-ministerial committee on drafting Nuclear and Radiation Regulatory Bill. Currently, Professor Gatebe is Kenya’s representative at IAEA NSGC and is on second 3 year term. He has also served in high level program committee of the IAEA on nuclear security for 2 years. Professor Gatebe is also the Chief Research Scientist at Kenya Industrial Research and Development Institute where he oversee industrial research and supervises scientist undertaking higher training in the universities. Prior to KIRDI, Prof. Gatebe was Professor of chemistry at Jomo Kenyatta University of Science and Technology where he continues to supervise post graduate students, with responsibility for masters and PhD programs. Prof. Gatebe has also published extensively with over 50 publications in peer reviewed journals and has supervised successfully over 40 postgraduate students. Professor Gatebe received his post graduate studies from Eastern Illinois and Southern Illinois Universities in the US and undergraduate degree from Kenyatta University in Kenya.

Karine HERVIOU, Institute for Nuclear Safety and Radiation Protection

Director of systems, new reactors and safety approaches – Institute for nuclear safety and radiation protection, France. Graduated in nuclear engineering (1991), Karine Herviou entered the IRSN in 1991. After 5 years on Emergency Operating Procedure safety analysis on PWR, she had a 15 years’ experience in the field of emergency preparedness and response. In 2009, she became head of project of the French EPR project in Flamanville and, in 2012, head of the new reactors department in charge of the assessment of Generation III and Generation IV reactors safety. In parallel, in 2011, she coordinated the analysis of post-Fukushima stress-tests in French nuclear installations. Since 2017, she is Director of systems, new reactors and safety approaches.

Donald R. HOFFMAN, Excel Services Corporation

Donald R. Hoffman holds a B.S. degree in Nuclear Engineering. He served in the US Nuclear Submarine Navy as a Senior Reactor Operator and Engineering Officer from 1970 – 1979. He was the Manager in the Nuclear Regulatory Commission's (NRCs) Licensing Branch, and was responsible for the licensing of 26 plants in the US Post TMI from 1980-1985.

Donald founded EXCEL SERVICES CORPORATION (EXCEL) in 1985 and in the more than thirty-two years since the formation of the company, EXCEL has become globally recognized as the premier supplier of licensing, regulatory, engineering, technical, operations and critical infrastructure services.

Selected Posts Include:

- Past President of the American Nuclear Society (ANS)
- Fellow American Nuclear Society (ANS)
- Member of the Secretary of Commerce's Civil Nuclear Trade Advisory Committee
- Vice Chair of the World Nuclear Association Cooperation in Reactor Design, Evaluation and Licensing (CORDEL) Group
- President/CEO of Sensible Energy Matters to America (SEMA)
- Chair, Next Generation Nuclear Plant (NGNP) Alliance

Hoffman is also deeply involved in a number of charitable activities. He is on the board of directors of the Montgomery County Animal Welfare Society, the Muscular Dystrophy Association, the Multiple Sclerosis Society, the American Cancer Society, the Maryland Special Olympics, the Kidney Foundation, the Washington Redskins Charitable Foundation, Wounded Warriors, Fisher House, Hero Dogs, and many others.

Youngdoo KANG, KINS

Youngdoo Kang is the Project Manager of Shin-Hanul 1&2, Division of Reactor Licensing, KINS from December 2016. He worked for KINS for 18 years and has been mainly involved in areas of regulation for Digital Instrumentation & Control Systems of NPPs in Korea. He was the member of Multinational Design Evaluation Program (MDEP) Digital I&C Working Group, and he contributed several IAEA's tasks such as developing Agency's guides.

Diego LISBONA, U.K. Office for Nuclear Regulation

Dr Diego Lisbona is a Nuclear Safety Inspector at the United Kingdom's Office for Nuclear Regulation. Diego holds a BEng and MEng in Chemical Engineering by the University of Oviedo (Spain) and a PhD, also in Chemical Engineering, by the University of Nottingham (UK). Prior to joining for ONR and for over 10 years, Diego conducted research both in academia and UK government research laboratories on major hazards risk assessment and process safety. Following roles as HAZOP facilitator and safety case author in the UK consultancy sector, Diego joined ONR in 2016 as Internal Hazards assessor for the Generic Design Assessment of the UK ABWR. Diego currently acts as Deputy Delivery Lead for the Advanced Modular Reactor project and as Internal Hazards specialist in ONR's New Reactors Division.

Stewart MAGRUDER, IAEA

Mr. Magruder is a Senior Nuclear Safety Officer with the IAEA. His responsibilities include serving as Scientific Secretary for the Small Modular Reactor Regulators' Forum and assisting countries embarking on nuclear power programs. He joined the IAEA on 1 March 2015 after more than 25 years with the U.S. Nuclear Regulatory Commission in Washington, DC.

Mr. Magruder holds a Master of Business Administration degree from Johns Hopkins University and a Bachelor of Science in Mechanical Engineering degree from Cornell University.

Nestor MASRIERA, Nuclear Regulatory Authority

Engineer Nestor Masriera was appointed as President of the Board of Directors of the Nuclear Regulatory Authority – Autoridad Regulatoria Nuclear (ARN) by the President of Argentina on January 5, 2016. In this capacity, he is Second Alternate Governor for Argentina to the Board of Governors of the International Atomic Energy Agency (IAEA) and Member of the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC).

Eng. Masriera has extensive experience in the nuclear sector and specializes in reactors. He worked in INVAP during 22 years and, prior to that, he served in ENACE (Empresa Nuclear Argentina de Centrales Eléctricas - Argentina Nuclear Power Plant Company), currently NA-SA (Nucleoeléctrica Argentina S.A. – Argentine Nucleoelectric Inc.) and CNEA (Comisión Nacional de Energía Atómica - National Atomic Energy Commission). He has also participated as an appointed expert by the IAEA at various international meetings and expert missions.

His last post at INVAP was as Head of the Regulatory Technical Assistance Division of the Nuclear Projects Department. Previously, he participated in various projects of the company, among which include the development, testing and commissioning of the source of cold neutrons of the OPAL reactor for the Australian National Science and Technology Organization (ANSTO) and the qualification of innovative features of the CAREM 25 reactor for CNEA. He was also a board member of INVAP between 2007 and 2010.

Between 1997 and 2007, he was a member representing Argentina in the International Nuclear Desalination Advisory Group” (INDAG), which reports to the Director General of IAEA.

Nestor Masriera holds a Nuclear Engineer degree from the Balseiro Institute where he also undertook teaching activities. Between 1996 and 1998 he was assistant professor of Fluid Mechanics at the School of Nuclear Engineering and between 2010 and 2011 was a professor of the Thermal Fluid course in the introductory course for Masters in Nuclear Engineering from Saudi Arabia.

Elsbeth MCGREGOR, U.K. Office for Nuclear Regulation

Elsbeth McGregor is an Associate in the Office for Nuclear Regulation's New Reactors Division, and is part of a team of specialists working on the Advanced Nuclear Technologies project.

Elsbeth has a background in Chemistry, holding a MSc in Chemistry from the University of Birmingham, UK. She began her career in the nuclear industry on the Office for Nuclear Regulation's graduate development scheme and then completed several industry secondments, gaining experience in the areas of reactor chemistry and radioactive waste management.

Elsbeth currently works within the Office for Nuclear Regulation's Chemistry and Nuclear Liabilities specialisms, providing specialist support to several regulatory Divisions. She is part of a team working on the New Reactors Division's Advanced Nuclear Technologies project, specifically focussing on preparations for the regulation of Advanced Modular Reactors.

Ho NIEH, Nuclear Energy Agency

Mr Ho Nieh was appointed as the NEA Head of the Division of Nuclear Safety Regulation and Technology in August 2015. Mr Nieh has 24 years of experience in nuclear power plant safety regulation and policy. He began his career in operation, maintenance and training at a United States Navy nuclear power plant. Mr Nieh joined the United States Nuclear Regulatory Commission (NRC) in 1997 as a resident inspector and conducted safety inspections at pressurised water and boiling water reactors. His extensive management experience has included responsibilities for emergency response; licensing and rulemaking; research and test reactor oversight; safety/security interface; operating experience; financial qualification and decommissioning funding; control room operator licensing; and the NRC's Reactor Oversight Process. Mr Nieh also served as the Chief of Staff for an NRC Commissioner. Prior to joining the NEA, Mr Nieh was the Director of the Division of Reactor Projects in the NRC Region 1 office where he was responsible for the resident inspectors assigned to nuclear power plants in the north-eastern United States. Mr Nieh, a United States national, holds a Bachelor's degree in Marine Engineering from the New York Maritime College. Mr Nieh is a graduate of the United States Naval Nuclear Power School and attended Rensselaer Polytechnic Institute for graduate studies in nuclear engineering. Mr Nieh also holds a Masters of Business Administration from the Johns Hopkins University.

Hugh ROBERTSON, Canadian Safety Nuclear Commission

Mr. Robertson is the Director General of the Directorate of Regulatory Improvement and Major Projects Management. In this position, he leads a dynamic team that supports the CNSC's mission and mandate by managing the licensing of new nuclear reactors, implementing and maintaining the CNSC Management System, managing the operations planning and performance process, as well as coordinating cross cutting corporate improvement initiatives under the Harmonized Plan.

Prior to joining the Canadian Nuclear Safety Commission in 2005, Mr. Robertson worked at the Department of National Defence in various Information Technology management positions.

In 2014-2015 Mr. Robertson accepted an assignment with the Chief Information Officer for the Government of New Zealand, as Manager of Information and Communication Technology (ICT) Operations Assurance. In this role he was responsible for implementing and monitoring a standard ICT assurance program across all major government departments.

Denis ROGATOV, Rostechnadzor

Mr. Denis Rogatov was born in Moscow in 1977. He graduated from the Bauman Moscow State Technical University as a Mechanical engineer. He then worked as an Engineer at JSC "Atomenergoproekt" (Moscow). In 2014, he joined Scientific and Engineering Centre for Nuclear and Radiation Safety (Technical support organisation of the Russian Regulatory body Rostechnadzor). There he works as Lead engineer in NPP Safety Division. One of his professional responsibilities is safety review of VVER type NPP.

Shi WEI, Shanghai Nuclear Research and Design Institute Co. Ltd

Shi Wei, Assistant Chief Engineer of Shanghai Nuclear Research and Design Institute Co. Ltd, have twenty years' experience in nuclear power design. He is responsible for process system design of nuclear power plant, and has participated in several nuclear power plants design. In the past 10 years, Mr. Shi did as process system supervisor of design sub-contractor of Sanmen & Haiyang AP1000 design. In 2013 and

2014, Mr. Shi was the site manager of SNERDI in Sanmen NPP site. He was the director of process system in CAP1400 design.

Tianmin XIN, Hualong Pressurized Water Reactor Technology Corporation. Ltd.

Tianmin XIN is the Vice President of Hualong Pressurized Water Reactor Technology Corporation. Ltd. Tianmin XIN was graduated from Zhejiang University of east China. It has more than thirty years' experience on design and engineering work in nuclear field. As the leader of the team, it was in charge of the process and safety design of nuclear inland for the first China two loop reactor's Qinshan Phase two power plant 1990s. In the year of 2000s, participated several different domestic nuclear power plant projects of three loop reactor, and was responsible for the design, engineering and technical management of nuclear inland. At the meantime as the leader of BRCNS, one technical support organization of china nuclear safety administration, leading the technical safety assessments of China CANDU reactors and China Experimental Fast Reactor.

In the year of 2007, as the design chief engineer of CNNC Hualong One project, took more concentration on the research and development of Hualong One. Hualong One is general three plus nuclear power plant developed by CNNC and CGN. New safety philosophy and safety measures were implemented in the reactor. It is including the combinations of active safety systems plus passive safety systems, etc. These combinations of different safety systems could efficiently prevent or mitigate the Beyond Design Base Accident or Severe Accident.

Based on the researches and engineering works, more than 30 reports or articles were published. Some prizes awarded by Chinese technical society. The name of Design Master awarded by China Nuclear Industry Investigation & Design Association in 2015.

Seung Hun YOO, KINS

Seung Hun Yoo is the senior regulator at the Department of Reactor Licensing Project Management in KINS from February 2018. He has worked for KINS since 2010 and has been mainly involved in areas of regulation for Accident Analysis, especially Loss of Coolant Accident. He involves in the Design and Safety Analysis Working Group of SMR Regulator's Forum in IAEA.