

Open Session: Intergenerational aspects /challenges in
programme development and safety communication

22 November 2024

Mita, Japan

SPEAKER BIOGRAPHIES

Takayuki Sasaki (Chair)

Professor

Graduate School of Engineering, Kyoto University

Dr Sasaki is a professor in the Department of Nuclear Engineering at Kyoto University. His research focuses on radiochemistry and environmental issues related to the safety assessment of radioactive waste disposal, including efforts to advance waste treatment during the decommissioning of the Fukushima Daiichi Nuclear Power Station. His work encompasses physical chemistry—particularly the thermodynamics of actinides in aqueous and solid states—along with analytical chemistry and separation chemistry, all aimed at advancing nuclear science. He holds leadership and advisory roles on committees dedicated to nuclear safety and environmental management and serves as an advisor to various organizations, including MEXT, AESJ, and NUMO.

Ian McKinley (Co-Chair)

McKinley Consulting

Dr McKinley initially trained as a nuclear geochemist and has almost 50 years of experience in radioactive waste management, having worked extensively in the UK, Swiss and Japanese programmes. He has contributed to planning, implementation, documentation and review of most major geological disposal performance assessments in Switzerland and Japan, initiated

seminal geo-microbiology, radionuclide migration and natural analogue projects and has extensive experience in international expert groups, advisory teams and programme committees. Currently, he is predominantly involved in repository concept development, knowledge management and safety case support projects, together with efforts to transfer experience to younger staff. He also supports projects for recovery after the Fukushima Dai-ichi accident and preparation for eventual site clean-up.

Neil Hyatt

Chief Scientific Adviser

Nuclear Waste Services (NWS)

Dr Neil Hyatt is Chief Scientific Adviser to Nuclear Waste Services, providing advice, assurance, challenge and leadership to the organisation in scientific and technical matters.

Neil is an internationally recognised expert in nuclear waste management and disposal, with over 200 peer reviewed publications in this field. His research has enabled implementation of thermal treatment technology for treatment of intermediate level waste and disposition of the UK plutonium stockpile.

Neil is also Aegis Professor of Deep Time at The University of Bristol. Latterly, he held the Royal Academy of Engineering / Nuclear Decommissioning Authority Chair in Radioactive Waste Management at The University of Sheffield (2002-22) and was Head of the Department of Materials Science (2015-18). Neil previously held advisory roles to HM Government as a

Ministerial appointment to the Committee on Radioactive Waste Management (CoRWM; 2019-22) and Nuclear Innovation Research Board (NIRAB; 2013-21), providing independent and authoritative policy advice.

Haeryong Jung

Director

HLW Planning Department

Korea Radioactive Waste Agency (KORAD)

Dr Jung is Director of HLW Planning Department in Korea Radioactive Waste Agency (KORAD). He has been working on the disposal of radioactive waste and spent nuclear fuel and the environmental remediation of contaminated soils and groundwater over 20 years. He has participated in licensing process of a low- and intermediate-level waste disposal facility in South Korea as a Technical Lead including the design and performance evaluation of engineered barriers and modelling of gas generation and transport. He had also worked on deep geological repository (DGR) activities with the International Atomic Energy Agency (IAEA) as a Technical Expert for nearly 4 years. Mr. Jung received a PhD in Environmental Science and Engineering from Gwangju Institute of Science and Technology (GIST) in Gwangju, South Korea.

Magnus Odén

Head of Site Descriptive Modeling

Swedish Nuclear Fuel and Waste Management Company (SKB)

Mr. Odén started working for SKB in 2002 as an industrial doctoral student, part time with modelling flow and transport in fractured rock, and part time in Forsmark setting up the hydrogeological monitoring system. He was for several years the site hydrogeologist at Forsmark working with site investigations and also analysing data as a member of the site modelling team.

He has within the project for the extension of the existing Final Repository for Short-Lived Radioactive Waste (SFR) repository been responsible for the site investigation and site descriptive modelling, and later also for the hydrogeological modelling performed in the assessment of safety after closure.

He is currently working as head of the site descriptive modelling team at SKB responsible for the modelling methodology in different geoscientific disciplines and producing the integrated site descriptive model for the areas hosting a nuclear waste repository.

Sylvie Voinis

Deputy Director of Safety, Environment and Waste Management Strategy Division and General Inspector

French national radioactive waste management agency (ANDRA)

Ms. Voinis graduated a chemical engineer and has over 35 years' experience in the field of waste management and disposal safety. At Andra, during her career, she had various positions, working on near surface and deep disposals. Concerning the deep disposal project for HLW and ILW, she was involved in this project from the feasibility studies to the license application for construction (that was submitted recently in January 2023) and strongly contributed to studies, and particularly the safety cases supporting successive steps of the development of the DGR. At the international level, she was involved in various projects and peer reviews at the IAEA and the NEA and is continuing these activities. Ms. Voinis worked also at the Nuclear Energy Agency (NEA) for 5 years as scientific secretary of the IGSC (Integration Group for the Safety Case) and CLAY club groups, from 2000 to 2005, managing projects and participating to the elaboration of NEA technical reports such as the post-closure safety report. Sylvie Voinis is currently deputy head of the safety/environmental/ strategy division and general inspector at Andra. She is member of a standing committee in France for nuclear facilities.

Erik K. Webb

Geoscience Research and Applications, Senior Manager

Sandia National Laboratories

Dr Webb has a MS and PhD in hydrogeology with emphasis in modeling and applied mathematics from the University of Wisconsin. He currently oversees the Geologic Research and Applications Group at Sandia National Laboratories with research in nuclear waste

disposal, geothermal energy, subsurface storage of oil, natural gas, hydrogen, and compressed air. He has worked for commercial companies, the U.S. Geologic Survey, NASA, and spent five years as a technical advisor to the U.S. Senate on energy and water policy. He also spent two years working as an International Researcher with a precursor to the Japan Atomic Energy Agency and participated in one of the International Atomic Energy Agency reviews of the Fukushima Nuclear Power Plant after the tsunami.

Hiroyuki Umeki

Coordination Advisor

Nuclear Waste Management Organization of Japan (NUMO)

Dr Umeki was educated in nuclear engineering and has been strongly engaged in radioactive waste management for over 40 years. He has contributed the projects for geological disposal of high-level and long-lived intermediate level (TRU) wastes in Japan to provide key safety case reports at Japan Atomic Energy Agency and Nuclear Waste Management Organization (NUMO). He has been promoting R&Ds to increase confidence in safety case as well as knowledge management system development for geological disposal. He has also been supporting the management of waste from Fukushima Daiichi accident. Currently, he is predominantly advising NUMO for integration of technical and non-technical aspects of geological disposal.

Dr Umeki has been intensively involved in international groups, particularly associated with the International Atomic Energy Agency and the OECD/Nuclear Energy Agency.