



SCAN ME



15-17 May 2024 • London

RAMTrans 2024

12th International Conference on the Transport,
Storage and Disposal of Radioactive Materials



PROGRAMME

Platinum Sponsor





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Solutions



Without transport there is no nuclear industry.

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PROGRAMME

DAY 1 WEDNESDAY 15 MAY

08:00 **Registration, Networking and Refreshments**

09:00 **Opening and Welcome**

Sean Duvall, Conference Organising Committee Chair, Nuclear Transport Solutions

09:10 **Keynote speaker**

SETH KYBIRD

Nuclear Transport Solutions

Without Transport, There is no Nuclear

SESSION 1: PACKAGE ENGINEERING

Chair: Sean Duvall, Nuclear Transport Solutions

Co-Chair: Rhianne Boag, Nuclear Transport Solutions

09:35 **Andrew Fowler, Eadon Consulting Ltd.**

Development of a Nuclear Waste Container to Minimise Whole Lifecycle Costs and Improve Operational Efficiencies

09:50 **Sundip Shah, Arup**

Impact performance sensitivity studies on the Robust Shielded (RS) Box Transport Container – Secondary impacts and the effects of ageing – and Methodology for calculation of impact release fraction for RS packages containing unencapsulated waste

10:05 **Franz Kattner, Gesellschaft für Nuklear-Service mbH (GNS)**

CASTOR® geo Casks Worldwide - Licensing and Experimental Experiences

10:15 **Break and Exhibition session**

See page 17 for details of Exhibitors

SESSION 2: REGULATION AND INSTITUTIONAL ISSUES

Chair: Martin Neumann, BAM Federal Institute

Co-Chair: Frederic Ledroit, IRSN

11:05 **Alastair Brown, Nuclear Transport Solutions**

Rising to the Challenges of Denials and Delays

11:20 **Rajesh Garg, Canadian Nuclear Safety Commission**

Transport of Radioactive Materials in Canada in 2021 and 2022

11:35 **Stavroula Vogiatzi, Greek Atomic Energy Commission (EEAE)**

Necessity of Joint Inspection in Transport of Radioactive Materials

11:50 **Lunch**

SESSION 3: OPERATIONS

Chair: Joel Kruelher, Urenco

Co-Chair: Trevor Tait, Croft Associates

13:05 **James Trott, Nuclear Waste Services**

Maintaining an Ageing Asset Base - Lessons Learnt from LLWR

13:20 **Pengyi Wang, International Atomic Energy Authority**

Advancing Global Safety in Radioactive Material Transport: IAEA's Integrated Approach to Training, Compliance, and Shipment Facilitation

13:35 **Steven Capner, Newcleo**

New Nuclear: Approach to Transport of Lead Fast Reactor MOX Fuel

13:50 **Professor Malcolm Joyce FNUcl, CoRWM and Lancaster University**

Priorities concerning the management of radioactive waste from future, small nuclear fission power reactors

14:05 **Break and Poster session**

See page 8 for details of Posters

SESSION 4: CONTENT SPECIFIC CHALLENGES

Chair: Craig Williams, Nuclear Transport Solutions

Co-Chair: Thomas Quercetti, BAM Federal Institute

16:00 **Jeff England, NAC International**

OPTIMUS-L Certified by NRC for HALEU

16:15 **Jimmy Toliuszis, NAC International**

Enhancing the OPTIMUS Packaging System for High-Activity Radioactive Source Transportation

16:30 **Julia Hill, BAUER Maschinen GmbH**

Introduction of latest technique for the Construction of temporary (or ultimate) disposal space of radioactive material underground by new diaphragm wall technique. Also offering underground space to SMR/ MMR (cluster) power plants

16:45 **Close**

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BIOGRAPHIES

Keynote Speakers

DAY 1 WEDNESDAY 15 MAY

SETH KYBIRD

Nuclear Transport Solutions

Without Transport, There is no Nuclear

Seth Kybird is CEO of Nuclear Transport Solutions, and was previously Managing Director of INS. He is a former Chartered Accountant and strategy consultant, who has experience of leading and developing organisations and a strong track record in tackling complex commercial challenges in the UK and internationally.



DAY 2 THURSDAY 16 MAY

PROFESSOR TIM TINSLEY

National Nuclear Laboratory

Reach for the stars

Tim Tinsley is Account Director - Space & Radioisotopes, Health & Nuclear Medicine at the National Nuclear Laboratory, as well as a Professor of space nuclear power at the University of Leicester.



DAY 2 THURSDAY 16 MAY

PETE BUCHAN MBE

World Nuclear Transport Institute

Keeping Nuclear Moving

An experienced leader and director, Pete has successfully led a number of significant, and strategically important commercial and operational projects. He has worked extensively with UK, European and Japanese customers, including spending three years in the Japan office, and is a board member of PNTL and WNTI.



DAY 3 FRIDAY 16 MAY

CHRIS JONES

Office for Nuclear Regulation

It's good to talk: communication and co-operation within the transport chain

Chris Jones is a Principal Inspector with the Office for Nuclear Regulation – Transport Competent Authority. He regulates a wide range of Class 7 transport activities and is also the UK's IAEA Transport Safety Standards Committee representative.



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DAY 1 WEDNESDAY 15 MAY

SESSION 1: PACKAGE ENGINEERING

Andrew Fowler, Eadon Consulting Ltd.

Andrew is a Principal Engineer with 14 years' experience in mechanical handling design and substantiation in the UK nuclear industry. Much of his experience has been in decommissioning and processing of radiological waste. This has involved the filling and handling of existing waste container designs and the design and substantiation of new waste containers and furniture. Most recently Andrew has been leading the concept design for a new and novel waste container including design for manufacture, manufacturing trials, prototype build and submission of a concept letter of compliance for review by the UK regulator.



Sundip Shah, Arup

Sundip is a Senior Mechanical Engineer in Arup's Specialist Structural and Mechanical team and is the technical lead for Arup's work in the area of design, development, research, analysis and evaluation of radioactive material packages. He is an expert in the modelling and analysis of structures subjected to dynamic loading, including blast, impact and seismic loads, using non-linear finite element analysis. He has particular specialist skills in the use of the finite element programme LS-DYNA, and is an experienced trainer providing external courses on theory and application of the software, as well as training to internal teams at Arup.

He has over 15 years' experience working on the analysis and design of safety-critical structures for nuclear-sector applications, that are required to withstand substantial impact loads, including the analysis and design of packages for radioactive waste. Within the nuclear sector, he has also been involved in research programs, including laboratory tests, investigating the failure characteristics of concrete and stainless steel bolts.

Sundip is an experienced project manager and has led teams of engineers in delivering successful projects and building important client relationships. He also represents Arup on the UK's Transport Container Standardisation Committee (TCSC).



Franz Kattner, GNS

Franz is Head of Department «Licensing and Testing» at GNS (Gesellschaft für Nuklear-Service) mbH. He is responsible for the management of three expert groups to achieve Certificates of Approval and Certificates of Compliance for GNS packages by competent authorities in Germany and abroad as well as the performance of tests for package approvals acc. to the international SSR-6 regulations / the U.S. regulations 10 CFR 71 and 10 CFR 71 and final repository requirements.



SESSION 2: REGULATION AND INSTITUTIONAL ISSUES

Alastair Brown, Nuclear Transport Solutions

Alastair is a Chartered Engineer and Senior Advisor to NTS where he brings over 25 years of experience in the nuclear transport industry. Alastair has been a Director in both International Nuclear Services and Direct Rail Services which came together in 2021 to form the NDA's transport subsidiary Nuclear Transport Solutions. Having been involved in shipping, technical and rail engineering, Alastair has a wide perspective of transport issues. In 2022, Alastair was appointed by the Department of Energy Security and Net Zero as the UK National Focal Point for Denial and Delay. In this role, Alastair represents the UK at the IAEA working group on Denials of Shipment.



Rajesh Garg, Canadian Nuclear Safety Commission

Rajesh Garg is currently employed as a Senior certification Engineer with the Canadian Nuclear Safety Commission (CNSC), the federal nuclear regulator in Canada. He has more than twenty-five years of diversified experience in mechanical and civil design, manufacturing, consulting and regulating the nuclear industry that includes power reactors and transport of radioactive materials. He has represented Canada at various international meetings concerning development of international policies and national and international standards. He has actively participated in various IAEA sponsored Co-ordinated Research Projects, Consultants Services Meetings and Review Panel meetings for the safe transport of radioactive materials. He is currently involved in transport issues related to small modular reactors and is also an active member of ANSI N14, ANSI N43 and Standards Council of Canada - IEC subcommittee 62C.



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DAY 1 WEDNESDAY 15 MAY

Stavroula Vogiatzi, Greek Atomic Energy Commission (EEAE)

She has been working for the Greek Atomic Energy Commission (EEAE), national competent authority for radiation and nuclear safety, in the Ionising Radiation Unit, for the last 22 years.

She holds the position of Special Scientific Personnel and acts as Technical Manager for the regulatory control of the transport of radioactive material and nuclear fuel, nuclear medicine practices and facilities to EEAE's MS (IEC/ISO 17020).

She has experience in international cooperation and activities for more than 20 years. She is supporting IAEA activities as an expert, including IRRS Missions. She has been TRANSSC member since 2005; she serves as the first chairperson of the Mediterranean Network (MedNet) for the transport of radioactive material since 2015. She holds a B.Sc. Degree in Physics from EKPA University of Athens, Greece, an MSc Degree in Medical Physics from the University of Aberdeen, UK - Professional License as Medical Physicist and Recognition as Radiation Protection Expert for medical and non-medical practices.



SESSION 3: OPERATIONS

James Trott, Nuclear Waste Services

James Trott is the Senior Engineering Manager overseeing the Repository Asset Care, Enhancement, and Remediation (RACER) Programme at the UK's Low Level Waste Repository (LLWR). He oversees the Engineering work conducted on the programme and is the technical lead. In the past year, the programme has undertaken numerous projects including upgrades to the Leachate Management System, refurbishment and replacement of substations, Grout Processing Facility refurbishments, and land remediation projects. The programme ensures that LLWR's assets meet performance objectives and comply with regulations for the safe disposal of the UK's Low Level Nuclear Waste.



Pengyi Wang, International Atomic Energy Authority

Pengyi Wang, graduated from Tsinghua University in China with a bachelor degree in 2018 majored in Nuclear Engineering and Nuclear Technology and China Institute for Radiation Protection with a master degree majored in Radiation and Environmental Protection in 2021. Professionally, Pengyi Wang has been associated with the China Institute for Radiation Protection since 2021, focusing on the design and safety assessment of radioactive material transport packages. He serves as a consultant in Transport Safety Unit at IAEA. His work primarily involves capacity building activities in the design safety assessment of radioactive material transport packages following IAEA SSG-66 guidelines. Additionally, he contributes to the development of the Transport Safety E-Schedule based on IAEA SSG-33 and evaluates Thematic Safety Area 7 - Transport Safety in the Radiation Safety Information Management System as a technical officer, among other duties.



Steven Capner, Newcleo

Steve is the Head of Nuclear Material Supply and Logistics at newcleo. He is a nuclear professional with a career spanning over 25 years at various UK organisations including British Nuclear Fuels, National Nuclear Laboratory, Uranium Asset Management and Westinghouse. He obtained his MBA at Manchester University and is a Chartered Engineer with MSc and BEng(Hons) Engineering degrees. Steve spent several years as the senior manager of an international nuclear material transport business, during which time he built a depth of knowledge in regulatory, operations and logistics.



DAY 1 WEDNESDAY 15 MAY

Professor Malcolm Joyce FNucl, CoRWM and Lancaster University

Malcolm Joyce is Distinguished Professor of Nuclear Engineering at Lancaster University and Cross-faculty Associate Dean for Research. His industrial experience includes Smith System Engineering Ltd., BNFL plc. and most recently as Technical Director of Hybrid Instruments Ltd. Recent examples of Malcolm's research include the association of ultra-trace level anthropogenic residues of plutonium in the ground with the legacy of breeder reactor operations at Dounreay, radiation-induced production of low-carbon fuel additives from biodiesel wastes and wireless communications with fast neutrons. Malcolm is Principal Investigator on a variety of UKRI- and NDA-funded, nuclear-related research projects and he leads the UK-Japan collaboration 'JUNO' to assist recovery at Fukushima. He is author on > 350 articles, a member of the UK Government's Nuclear Industry Research Advisory Board, a member of the Committee on Radioactive Waste Management, co-chair of the National Nuclear User Facility and a member of the UKAEA Programme Advisory Committee. He was awarded the James Watt medal by the Institution of Civil Engineers in 2014 and a Royal Society Wolfson Research Merit Award in 2016. He is a Chartered Engineer, a Fellow of the Nuclear Institute and author of 'Nuclear Engineering: A Conceptual Guide to Nuclear Power', published by Butterworth-Heinemann in 2017.



SESSION 4: CONTENT SPECIFIC CHALLENGES

Jeff England, NAC International

Jeff England is the Director of Transportation Projects for NAC International. He is responsible for all NAC packaging and transport projects in support of operations at the Department of Energy, Department of Defense, other government agencies, international and commercial projects. He has led the expansion of the radioactive material packaging capabilities at NAC with deployment of new packaging and missions. He has over 45 years of operations, engineering, project management, program management, mission execution, and mission development experience. He has a broad background in radioactive material processing and management. He worked 28 years at the Savannah River National Laboratory. At Savannah River Site, Jeff has served in several multiple technical, management and program manager roles at SRS, Los Alamos National Laboratory and the National Nuclear Security Agency Headquarters. He started off his career at SRS in the Systems Engineering Department supporting Process and Fluid Systems. He is a graduate of Central Washington University, Command and Staff College, and Air War College.



Jimmy Toliuszis, NAC International

Jimmy Toliuszis is a Project Manager in NAC International's Transportation Projects division, where he is responsible for leading NAC's transportation jobs including bid evaluations and proposals, contract development, fabrication technical surveillance, cask fleet management, project budgeting, schedule management, and serves as the customer's main point of contact.

Jimmy has served with NAC for over a decade and has performed the roles of Nuclear Engineer as well as Project Engineer. As a nuclear engineer he performed criticality and shielding analyses for both storage and transport solutions as well as developing in-house corporate programs and verification and validation for computer software. As Project Engineer Jimmy performed a variety of tasks for the Site and Transportation Services group where he participated in dozens of cask loading operations within the US and around the world.

As a project manager Jimmy has managed multiple projects simultaneously, including loading and transport operations for the NNSA, DOE, Canadian Nuclear Laboratories, INL, and various other organizations. Along with fuel, post irradiation experiment (PIE), and other nuclear waste shipments, Jimmy has managed the design and licensing of Type B packages with the NRC and CNSC and the design of high-level waste (HLW) on-site transfer systems.



Julia Hill, BAUER Maschinen GmbH

Julia is the Sales Manager at Bauer Equipment UK, with over 9 years experience in Piling and Geotechnical Engineering. Julia graduated with an MSc in Geotechnical Engineering and a MEng in Geology from the University of Birmingham and Liverpool, respectively. Her career started with Roger Bullivant as a Geotechnical Engineer; specialising in the design of piled techniques and embedded retaining walls. Her drive and enthusiasm saw her progress rapidly through the ranks and led her to manage the Ground Improvement division for Northern England.



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POSTERS

Dr Annette Rolle, BAM Federal Institute

Investigations of Aged Metal Seals for Transport Package Safety Assessment

Thomas Quercetti, BAM Federal Institute

Enhancement of the BAM Fire Test Stand for Testing a Large Transport Package for Radioactive Materials

Mike Weber, BAM Federal Institute

How to Consider Imperfectly Mounted Reinforcement Cages in a Cylindrical Concrete Container During Mechanical Specimen Tests

Dr Steffen Komann, BAM Federal Institute

Ageing management measures of transport packages for radioactive materials

Andrew Gray, Nuclear Transport Solutions

Transport and Logistics Consultancy – complex challenges to support operational excellence

Dave Rossiter, Amentum

Delivering strategic nuclear waste transport programmes

Dr Frederik Kesting, Federal Office for the Safety of Nuclear Waste Management (BASE)

Comparative overview of the properties of large surface contaminated objects transported in Germany since 2007 and corresponding approval procedures

Tom Rowlands, Rolls-Royce

Summary of the update to the Transport Container Standardisation Committee (TCSC) Code of Practice (CoP) TCSC0031 on the Design of Bolted Joints for Radioactive Material (RAM) Transport applications.

Rhianne Boag, Nuclear Transport Solutions

Nuclear Transport Solutions – Our Experience of Designing and Re-Purposing Nuclear Transport Packages

Wang Zhipeng

Analysis of Safety Performance of Fasten and Loading Reinforcement Systems and Key Components for Radioactive Materials Transport Package

Emma Tallantire, Sellafield Ltd.

Creating a combination package to dispose of radioactive and chemicals wastes from the Sellafield site

Jérôme Thomas, ROBATEL Industries

Packages for radioactive waste transportation

Maz Hussain, Sellafield Ltd.

Developments in the Transport Container Standardisation Committee Codes of Practice

NUCLEAR MODELLING 2024

7th Annual Modelling in Nuclear Science and Engineering Seminar

7-8 November 2024, Manchester

nuclearinst.com/events




Nuclear Institute

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DAY 2 THURSDAY 16 MAY

08:00 **Registration, Networking and Refreshments**

09:00 Keynote speaker

PROFESSOR TIM TINSLEY

National Nuclear Laboratory

Reach for the stars

SESSION 5 : OTHER

Chair: Jennifer Nugent, Nuclear Transport Solutions
Co-Chair: Martin Neumann, BAM Federal Institute

09:25 **Dr Fabrice Fleurot, Nuclear Transport Solutions**
Meteor: A CAD-compatible nuclear criticality code

09:40 **Beverley Stothart, Nuclear Transport Solutions**
Nuclear Waste Services & Nuclear Transport Solutions Collaboration

09:55 **Florent Ledrappier, TECHNETICS**
Improvement of metallic seals ageing behavior based on surface texturing – HELICOFLEX® TEXEAL®.

10:10 **Nick Fuller, Northern Engineering Sheffield Ltd.**
Elastomer Compounds for Use in RAM Transport Flasks – Compound Test Program

10:25 **Break**

SESSION 6: PACKAGE ENGINEERING

Chair: Rhianne Boag, Nuclear Transport Solutions
Co-Chair: Lars Muller, BAM Federal Institute

11:00 **Sundip Shah, Arup**
Modelling, Analysis and Evaluation of unshielded and shielded low heat generating waste packages

11:00 **Robbie Britton, Croft Associates Ltd.**
Validation of impact performance for the croft safkeg® through analyses and testing

11:15 **Jason Biddlecombe, Frazer-Nash Consultancy**
Development of a reliable modelling capability for assessing the impact performance of reinforced concrete boxes

11:30 **Gaël Henriot, ROBATEL Industries**
The R85 Type B Cask: the new ROBATEL Industries design for cluster guides transportation from EDF's NPPs

12:00 **Lunch**

13:30 Keynote speaker

PETE BUCHAN MBE

World Nuclear Transport Institute

Keeping Nuclear Moving

SESSION 7: REGULATION AND INSTITUTIONAL ISSUES

Chair: Frederic Ledroit, IRSN
Co-Chair: Elisa Penda, WNTI

13:55 **Alessandro Orsini, National inspectorate for Nuclear Safety and Radiation Protection (ISIN)**

ISIN dose assessment to members of the public arising from transport of radiopharmaceuticals to Rome's Hospitals

14:10 **Dr Martin Neumann, BAM Federal Institute**

Transport of HLW canisters on sea vessels – boundary conditions and requirements from the German competent authority

14:25 **Paul Butler, Office for Nuclear Regulation**

What makes a 'suitable and sufficient' transport Radiation Risk Assessment from a regulator's perspective?

14:40 **Break**

SESSION 8: PACKAGE ENGINEERING

Chair: Peter Bates, Rolls-Royce Submarines
Co-Chair: Franz Kattner, GNS

15:15 **Sundip Shah, Arup**
Developments in the holistic impact methodology for the prediction of impact release fraction for waste packages with encapsulated wasteforms and investigation of the effect of ageing on the compressive strength and break-up characteristic of grout encapsulants and simulant wasteforms

15:30 **Gordon Turner, Nuclear Waste Services**

The benefit of aerosol mechanisms to demonstrate the performance of the lid seal for transport of radioactive waste

15:45 **Dr Shawn Toh, Nuclear Transport Solutions**

Aerosol processes in nuclear transport package containment safety cases.

16:00 **Craig Williams, Nuclear Transport Solutions**

An Overview of Dose Rate Assessments to Support Nuclear Vessel Licensing

16:15 **Sam Robinson, Frazer-Nash Consultancy**

Bridging the Gap: Aligning Nuclear Waste Transport Package Design to Contemporary BS and ISO Standards

16:30 **Joanne Lane, Nuclear Transport Solutions**

A Forward Look - The Application of Current Transport Approaches to the Future of Nuclear

16:45 **Close**

SESSION 5 : OTHER

Fabrice Fleurot, Nuclear Transport Solutions

Fabrice studied physics at the Pierre & Marie Curie University in Paris before moving to KVI, in the Netherlands to do a PhD in nuclear astrophysics. Then, joined the Sudbury Neutrino Observatory (SNO) in Canada to work in neutrino astrophysics. Moved to the UK in 2007 and joined Sellafield Ltd to become first a shielding assessor and then a nuclear code developer. Joined INS/NTS in 2020 to help with the creation of the company's new Criticality and Shielding Team and to develop nuclear software.



Beverley Stothart, Nuclear Transport Solutions

Beverley Stothart is the Head of NDA Group Strategy at Nuclear Transport Solutions (NTS) and is responsible for the direct relationship and stakeholder engagement within the NDA Group, specifically Nuclear Waste Services and Magnox. Beverley has over 15 years in the nuclear transport industry developing transport solutions and other bespoke specialist shipments within the UK. She is seconded within Nuclear Waste Services (NWS) as Transport Lot Lead the UK Geological Disposal Facility (GDF) Programme and is committed to developing optimised transport solutions which provide increased value for money for the taxpayer whilst embracing sustainability initiatives.



Florent Ledrappier, TECHNETICS

He obtained in 2005 his PhD in Mechanical Engineering at the LTDS Laboratory of the Ecole Centrale de Lyon. Florent has more than 15 years of experience within TECHNETICS, focused on numerical simulation of seals and leak-tight assemblies. His present position is Technical Manager of Simulation activities of TECHNETICS, where he manages the development of simulation techniques and internal training.



Nick Fuller, Northern Engineering Sheffield Ltd.

Nick is currently Technical and Materials Manager for Northern Engineering (Sheffield) Limited (NES). He has more than 35 years of experience in the world of polymers, working in material and product development, as head of health, safety and quality, operations and R&D whilst providing technical and application support to a wide range of customers spanning diverse industries around the world. He has subsequently developed over 600 different grades of compound in collaboration with NES compound partners and helped successfully develop elastomeric sealing solutions and accreditations across critical industry sectors, including Aerospace and Defence, Space, Pharmaceutical, Semiconductor and more recently Nuclear. He has led every nuclear project undertaken by NES in the last 30 years. He has been an integral part of each project team, often bridging the gap between the nuclear customer, the design authorities, NES engineering and operational team, in successful development and delivery of projects ranging from Nuclear fuel and waste transportation flasks, including designs for nuclear blast door sealing systems and the static sealing system for the Hinkley Point C tunnel isolation cap applications and dynamic seals for extreme working conditions, to name a few.



SESSION 6: PACKAGE ENGINEERING

Sundip Shah, Arup

Sundip is a Senior Mechanical Engineer in Arup's Specialist Structural and Mechanical team and is the technical lead for Arup's work in the area of design, development, research, analysis and evaluation of radioactive material packages. He is an expert in the modelling and analysis of structures subjected to dynamic loading, including blast, impact and seismic loads, using non-linear finite element analysis. He has particular specialist skills in the use of the finite element programme LS-DYNA, and is an experienced trainer providing external courses on theory and application of the software, as well as training to internal teams at Arup.

He has over 15 years' experience working on the analysis and design of safety-critical structures for nuclear-sector applications, that are required to withstand substantial impact loads, including the analysis and design of packages for radioactive waste. Within the nuclear sector, he has also been involved in research programs, including laboratory tests, investigating the failure characteristics of concrete and stainless steel bolts.

Sundip is an experienced project manager and has led teams of engineers in delivering successful projects and building important client relationships. He also represents Arup on the UK's Transport Container Standardisation Committee (TCSC).



Robbie Britton, Croft Associates Ltd.

Robbie is a key member at Croft through project and team based work, package licencing and safety case writing, risk analysis, basis of design work including calculations, optioneering approaches and manufacturing development. He has completed in-depth understanding of the licencing discipline through origination of novel documentation in accordance with international regulatory bodies. Robbie has experienced valuable Project Management and engineering experience, completing the APM Project Fundamentals Qualification since joining Croft. As licencing engineer for the project, Robbie has just completed the recent license application and detailed design of a new Type B fissile package.



Jason Biddlecombe, Frazer-Nash Consultancy

Jason is a Chartered Engineer, and a Consultant within the Asset Integrity group with 6 years' experience at Frazer-Nash. He has a skillset including both static and dynamic Finite Element Analysis (FEA), hand calculations, code assessments, engineering design, and programming. So far in his career he has gained experience delivering to the UK nuclear industry; including the existing Advanced Gas Reactor fleet, future nuclear projects, and impact assessments of nuclear transport and storage containers. His experience also extends to other industries, and through managing a variety of workstreams, he has developed a core theoretical understanding of stress analysis and complimented this through diverse practical site experiences.



Gaël Henriot, ROBATEL Industries

Gaël HENRIOT is a graduated engineer from Ecole Nationale Supérieure d'Ingénieur de Caen (2019). He's working since 2023 both as design and calculation engineer within ROBATEL Industries (a French firm founded in 1830) and has now 4 years of experience in the nuclear field, especially in the radioactive material transport packages. In this context, he's in charge of designs of radioactive materials transport packages (numeric simulations, physic experimentations and safety analysis reports), as well as regulatory issues.



SESSION 7: REGULATION AND INSTITUTIONAL ISSUES

Alessandro Orsini, National Inspectorate for Nuclear Safety and Radiation Protection (ISIN)

Alessandro Orsini is 33 years old. From start of 2023 joined ISIN, the National inspectorate for nuclear safety and radiation protection of Italy, in department for Radioactive Waste Management and Transport of radioactive material.

His principal activities related with transport of radioactive material are the technical assessments of radiation protection programmes of carriers requesting the authorization to transport radioactive material, the supervision of on field activities related to transport, safe handling of radioactive material, review and assessment of package design, assessment of authorization of shipments, the use of computer codes for risk analyses and dose assessments to workers and to the public related to transport of radioactive material.

He graduated in nuclear engineering and previously cooperated in several EU funded projects of the Instruments for Nuclear Safety Cooperation (INSC) program. He is also expert in software development as he worked in the digital transformation sector.



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DAY 2 THURSDAY 16 MAY

Paul Butler, Office for Nuclear Regulation

Paul Butler has been in the nuclear industry for the past 11 years, prior to ONR he was a nuclear graduate with secondments in Magnox, Sellafield and Nuvia. Since 2014 Paul has worked at ONR where he has worked on an array of projects such as delicensing of Nuclear Licensed Sites, Periodic Safety Review of nuclear facilities, Direct Shine assessment, IRR17 compliance inspections as well as Generic Design Assessment for the UK ABWR and UK HPR1000. Paul is currently a Nuclear Safety Inspector in Radiological Protection working within the Transport Competent Authority.



Dr Martin Neumann, BAM Federal Institute

Dr Martin Neumann has worked for 20 years at BAM (German competent authority). He studied mechanical engineering at the Mining University Freiberg. He received in 2009 a PhD in Mechanical Engineering / Safety Science from the Bergische University Wuppertal. At BAM he is leading the working group "Quality Assurance of transport flasks".



SESSION 8: PACKAGE ENGINEERING

Sundip Shah, Arup

Sundip is a Senior Mechanical Engineer in Arup's Specialist Structural and Mechanical team and is the technical lead for Arup's work in the area of design, development, research, analysis and evaluation of radioactive material packages. He is an expert in the modelling and analysis of structures subjected to dynamic loading, including blast, impact and seismic loads, using non-linear finite element analysis. He has particular specialist skills in the use of the finite element programme LS-DYNA, and is an experienced trainer providing external courses on theory and application of the software, as well as training to internal teams at Arup. He has over 15 years' experience working on the analysis and design of safety-critical structures for nuclear-sector applications, that are required to withstand substantial impact loads, including the analysis and design of packages for radioactive waste. Within the nuclear sector, he has also been involved in research programs, including laboratory tests, investigating the failure characteristics of concrete and stainless steel bolts.

Sundip is an experienced project manager and has led teams of engineers in delivering successful projects and building important client relationships. He also represents Arup on the UK's Transport Container Standardisation Committee (TCSC).



Gordon Turner, Nuclear Waste Services

Gordon Turner CEng is a Safety Case Engineer (Transport) for Nuclear Waste Services. He has worked in the nuclear industry for 40 years, first in finite element modelling of nuclear reactors, then fire and impact performance of radioactive waste packages. More recently Gordon has worked in Operational and Transport safety cases for underground disposal of UK waste.



Dr Shawn Toh, Nuclear Transport Solutions

Shawn is a design engineer analyst in Nuclear Transport Solutions, with a PhD in Mechanical Engineering from Liverpool John Moores University.



Craig Williams, Nuclear Transport Solutions

Craig is a chartered physicist obtaining his degree in 2005 in Physics (with Electronics & Instrumentation in Industry) from the University of Leeds, UK.

Craig has over 15 years of experience as a nuclear safety case author and radiation shielding consultant. He has worked across many areas of the nuclear industry including civil and defence sectors, new build, legacy nuclear facilities and transport of radioactive material. His career has also included periods of on-site work in radiation-controlled areas.

His current position is Shielding Specialist in the Criticality and Shielding Transport team at Nuclear Transport Solutions, part of the UK's Nuclear Decommissioning Authority.



Sam Robinson, Frazer-Nash Consultancy

Sam Robinson is a Senior Engineer within the asset integrity practice at Frazer-Nash Consultancy. His professional background encompasses a Masters in Materials Science and Engineering from the University of Sheffield, followed by employment in consulting and the defence nuclear enterprise.

Having worked within both the civil and defence nuclear industries within the UK, both directly and as a consultant, Sam is excited to be able to contribute to the nuclear community of practice with a presentation at RAMTrans on a topic at the intersection of nuclear safety and sustainability."



Joanne Lane, Nuclear Transport Solutions

Joanne Lane heads up the Business Management and Programme and Project Management Teams within the Solutions Business Line at NTS. NTS is the leading global provider of safe, secure and reliable nuclear transport solutions that help make the world safer and more sustainable. Joanne has had a varied career in the nuclear industry for over 30 years, working throughout the nuclear fuel cycle having held a range of different roles at a number of different locations. Joanne specialises in all aspects of business management having managed multi-million pound complex customer and procurement contracts, bid management, performance and financial reporting, contract negotiation and managing multi-disciplinary teams. Joanne is also the Industry Lead of the WIN North West Region of WIN UK, Trustee on the Nuclear Industry Benevolent Fund and Mentor with the Girls Network.



SESSION 9: OTHER

Phil Edge MNUCL, Nuclear Decommissioning Authority

Phil Edge started his career at Sellafield, in safety and technical roles before moving into operations as Shift Manager at Calder Hall nuclear power station and then as Sellafield Site Shift Manager.

He joined the Nuclear Decommissioning Authority (NDA) when it was formed in 2005, to provide nuclear safety assurance across the NDA estate, before becoming the programme manager providing client oversight and assurance of all operations and infrastructure programmes (including transport) at Sellafield. Phil was the programme manager for the Dounreay Exotics Consolidation Programme, transporting materials away from the Dounreay site by land, sea and air.

He is now in a strategic role as the NDA Head of Transport and Logistics, seeking to make transport across the NDA group more integrated and more efficient.

Phil has a physics degree from the University of Oxford, is a member of the Nuclear Institute and is a registered Chartered Engineer.



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DAY 3 FRIDAY 16 MAY

08:30 **Registration, Networking and Refreshments**

09:00 Keynote speaker

CHRIS JONES

Office for Nuclear Regulation

It's good to talk: communication and co-operation within the transport chain

SESSION 9: OTHER

Chair: Shawn Toh, Nuclear Transport Solutions

Co-Chair: Steffen Komann, BAM Federal Institute

09:25 **Phil Edge MNUcl, Nuclear Decommissioning Authority**
NDA Transport Strategy

09:40 **Melissa Collier, Science and Technology Facilities Council**
Neutron Target Transport

09:55 **Jennifer Nugent, Nuclear Transport Solutions**
NTS: A Centralised Approach to Design Authority for One-NDA

10:10 **Tanzila Nurjahan, Technische Universität Dresden**
Investigation of Moisture Content in Concrete during Decommissioning of Nuclear Facilities by Electrical Impedance Spectroscopy

10:25 **Break**

SESSION 10: PACKAGE ENGINEERING

Chair: Trevor Tait, Croft Associates

Co-Chair: Rhianne Boag, Nuclear Transport Solutions

10:50 **Markos Yiassoumis, Croft Associates Ltd.**

Analysis of a Novel Screw Ring Closure Mechanism for a Type B(U)F Transport Package

11:05 **Ameen Azzabi, Sellafield Ltd.**

The Reuse of Transport Packages for on-site Transfers

11:20 **Adam Lever, Nuclear Transport Solutions**

The Development of a Versatile Type B(U)F Transport Package to Support the Front-End Fuel Cycle of Gen-IV Reactors

11:35 **Trevor Tait, Croft Associates**

Closing Remarks

12:00 **Conference Close**

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DAY 3 FRIDAY 17 MAY

Melissa Collier, Science and Technology Facilities Council

Melissa obtained an MSc in Nuclear Decommissioning and Waste Management from the University of Birmingham in 2013. During 2020, she completed the University of Strathclyde Certificate of Professional Development in Radiation Protection. She has worked at the Rutherford Appleton Laboratory for the ISIS Neutron and Muon Source since 2017 as a Senior Radioactive Waste Specialist. Melissa's role is to provide specialist advice on radioactive waste management and radioactive materials transport. This includes writing technical reports on radioactive waste characterisation, best available techniques documentation and auditing against the management system. She also manages projects relating to radioactive waste, develops radioactive waste management strategies and she provides training and mentoring to colleagues on her specialisms. She is an appointed Radioactive Waste Manager and Dangerous Goods Safety Adviser for the site. Melissa started her career in radioactive waste management at AWE, working in an active laboratory and then going on to manage the waste in a legacy radioactive waste handling facility which was in care and maintenance prior to decommissioning.



Jennifer Nugent, Nuclear Transport Solutions

Jennifer Nugent is currently the Head of Technical Solutions at Nuclear Transport Solutions (NTS) (part of the NDA group) where she is a recognised leader. NTS is the leading global provider of safe, secure, and reliable nuclear transport and logistics solutions that help make the world safer and more sustainable. Jennifer started her nuclear career at BNFL Springfields in the research laboratories, moving into the Environmental department and then to her preferred area of Nuclear Transport. Having led teams working on Package Design, Safety Case development and Licensing through to consignment and delivery she is keen to ensure that the skills relating to the transport of nuclear material are maintained as without transport there is no nuclear industry. NI Trustee



Tanzila Nurjahan, Technische Universität Dresden

Tanzila received a M.Sc. degree in Electrical Communications Engineering from the Universität Kassel, Germany. Now she is pursuing my PhD at Technischen Universität Dresden (TUD) and is also a visiting scientist at HZDR, Germany. Before starting her research at TUD, she worked as a research assistant at the Institut für Nanostrukturtechnik und Analytik (INA) at the University of Kassel, where she worked on improving MEMS/ MOEMS sensors, gained experience in a clean room, and coached master students in the field of optoelectronics and semiconductor LASER.



SESSION 10: PACKAGE ENGINEERING

Markos Yiassoumis, Croft Associates Ltd.

Markos is a key member at Croft through project and team-based work, package licencing and safety case writing, risk analysis, design underpinning calculations, package maintenance and shielding assessments.

Markos has completed in-depth understanding of the licencing discipline through origination of novel documentation in accordance with international regulatory bodies.

Markos has experienced valuable Project Management and engineering experience, completing the APM Project Fundamentals Qualification since joining Croft.

As a licencing engineer, Markos has completed several Type A certificate renewals and a Type B application which has been approved by the ONR.



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BIOGRAPHIES

DAY 3 FRIDAY 17 MAY

Ameen Azzabi, Sellafield Ltd.

Ameen is a Mechanical Engineer working for Sellafield Ltd. He attained a master's degree in mechanical Engineering from the University of Sheffield before accepting a graduate job at Sellafield. During this time, he has worked in various roles throughout the business, giving a broad working base of knowledge on the nuclear industry. Upon completing the graduate placements Ameen accepted a role at Package Design Group, where he has worked for just over a year. During this time, he has worked with both transport and on-site packages. He works closely with consignment managers, package maintainers and operating plants to enable the transport and transfer of radioactive material. In addition, Ameen has worked with a variety of suppliers, engineering firms, site licence holders and other NDA businesses in the nuclear industry. He has previously presented at PATRAM 2022, delivering a presentation on manufacturing deviations within the context of RAM packages.



Adam Lever, Nuclear Transport Solutions

Adam is currently a Graduate Design Engineer at Nuclear Transport Solutions. NTS is the leading global provider of safe, secure and reliable nuclear transport and logistics solutions that help make the world safer and more sustainable. We support the global nuclear market by providing standalone or end-to-end solutions to nuclear transport and logistics challenges.



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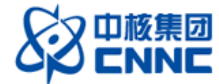
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