The International Expert Conference on Nuclear Technology

Jahrestagung Kerntechnik
Annual Meeting on Nuclear Technology

47th

10 – 12 May 2016

CCH – Congress Center Hamburg Germany

Key Topics

- Outstanding Know-How & Sustainable Innovations
- Enhanced Safety & Operation Excellence
- Decommissioning Experience & Waste Management Solutions

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DAtF KTG

Programme

Programme Overview

Tuesday I May 10th 2016

09:00 | 10:15 | 10:30 | 12:00

Industrial Exhibition | Opening Remarks

Coffee | Lunch

FOCS | Radiation Protection — Hall 7 — Page: 20

FOCS | Sustainable Reactor and Valuable — Operation Management – Safe, Efficient — Hall 8 — Page: 21

FOCS | Challenges of the in Germany I D tsiE — New Search for a HLW-Repository — Hall 6 — Page: 28

TOPS | Decomissioning – an Interna- — tional Survey — Hall 13/14 — Page: 29

Wednesday I May 11th 2016

08:15 | 09:00 | 10:00 | 10:30 | 12:00

Industrial Exhibition

Coffee | Lunch

FOCS | Probability of, a Nuclear — Consequences of and Compensation for Accident in the EU — Hall 6 — Page: 7

TECS | Reactor Physics, — Thermo and Fluid Dynamics — Hall 7 — Page: 8

WORKS | Preserving — Competence I Part 1 — Hall 15 — Page: 9

CAMP | Nuclear Energy

TECS | Operation and Safety of — Nuclear Installations, Fuel

TECS | Radioactive — Waste Management and Storage I E/D tsiE

Thursday I May 12th 2016

08:30 | 09:00 | 10:00 | 10:30 | 12:00 | 12:30

Industrial Exhibition — Hall H

Coffee

TOPS | Applying Innovative — Technology to VVER Plants — Hall 7 — Page: 16

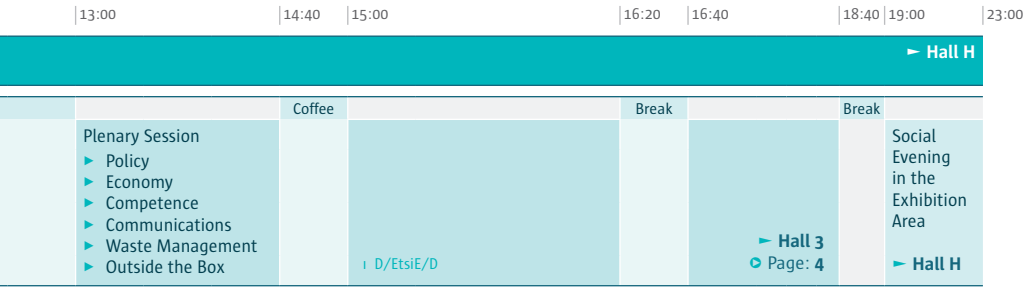
TECS | Know-How, New Build — and Innovations — Hall 12 — Page: 17

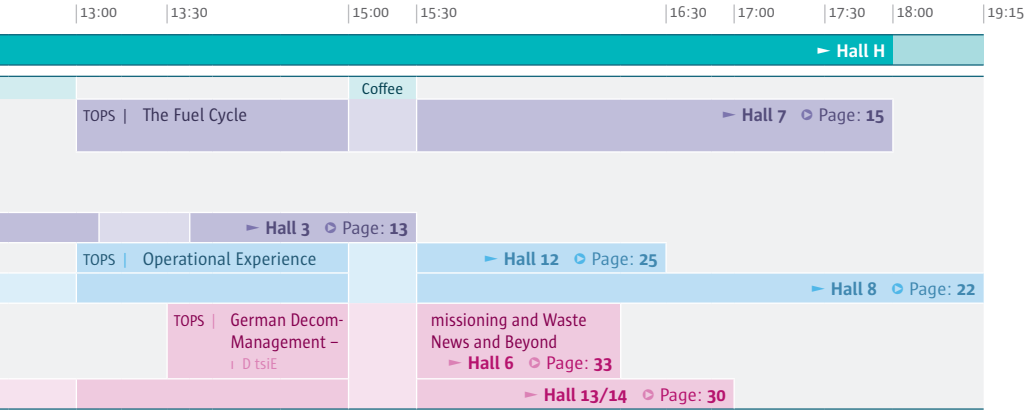
WORKS | Preserving — Competence I Part 2 — Hall 15 — Page: 10

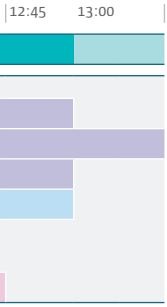
TOPS | Fuel and Safety — Hall 8 — Page: 26

TOPS | Optimized Spent Fuel — Management from Fuel Pond to Final Repository — Hall 6 — Page: 34

TECS | Decommissioning of — Nuclear Installations I E/D tsiE — Hall 13/14 — Page: 35







	Outstanding Know-How & Sustainable Innovations
	Enhanced Safety & Operation Excellence
	Decommissioning Experience & Waste Management Solutions

FOCS = Focus Session
TOPS = Topical Session
TECS = Technical Session
WORKS = Workshop
CAMP = Campus
D = Contributions in German
E = Contributions in English
tsiE = translated simultaneously in English
tsiE/D = translated simultaneously in English/German

Plenary Session

Tuesday | May 10th 2016
13:00 – 23:00 | Hall 3

13:00 D/E **Welcome and Opening Address**
Dr. Ralf Güldner | President of DAtF, Germany

Policy

13:20 D **Speech**
Jochen Flasbarth | State Secretary at the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, Germany

13:40 D **About Cores, Coal and Cash**
H.E. Tomáš Jan Podivínský | Ambassador of the Czech Republic in Berlin, Germany

14:00 E **The Role of Nuclear Power in Delivering the UK's Secure, Low Carbon, Affordable, Energy Future**
Nick Leake | Counsellor EU and Economic, British Embassy, Germany

Economy

14:20 D **Managing Germany's Energiewende**
Ulrich Hartmann | Executive Vice President, RWE Power AG, Germany

14:40 *Coffee Break*

15:00 E **Strategies to a Balanced Energy Mix in Romania**
Daniela Lulache | CEO, Societatea Nationala Nuclearelectrica S.A. (SNN), Romania

Competence

15:20 D **International Perspectives for the Young Generation**
Eileen Langegger | Chairperson of the ENS Young Generation, Austria
interviewed by
Dr. Astrid Petersen | Chairperson of KTG, Germany

15:40 E **First Plasma Operation in the Fusion Experiment Wendelstein 7-X**
Prof. Dr. Robert Wolf | Head of Stellarator Heating and Optimisation Division, Max Planck Institute for Plasma Physics, Germany

D E *All contributions translated simultaneously in English/German.*
The DAtF-President and the KTG-Chairperson will lead through the programme.

Communications

16:00 E **Energy For Humanity – A New Voice for the Pro-nuclear Environmental Movement**
Kirsty Gogan Alexander | Co-Founder & Director of „Energy for Humanity“, UK

16:20 *Break*

Waste Management

Different Approaches to Final Repositories in Europe

16:40
Key Note D Steffen Kanitz | Member of the German Bundestag, Germany

16:50
Panel E Dr. Thomas Ernst | Chairman of the Executive Board, Nagra, Switzerland
Hans Forsström | Senior Advisor, SKB, Sweden
Steffen Kanitz | Member of the German Bundestag, Germany
Mika Pohjonen | Sales Director, Posiva Oy, Finland

Moderator John Shepherd | Editor-in-Chief, nuclear24, UK

Award Ceremony

17:50 D **Award of Honorary Membership of KTG to Dr. Wolfgang Steinwarz**
Presented by Dr. Astrid Petersen | Chairperson of KTG, Germany

Outside the Box

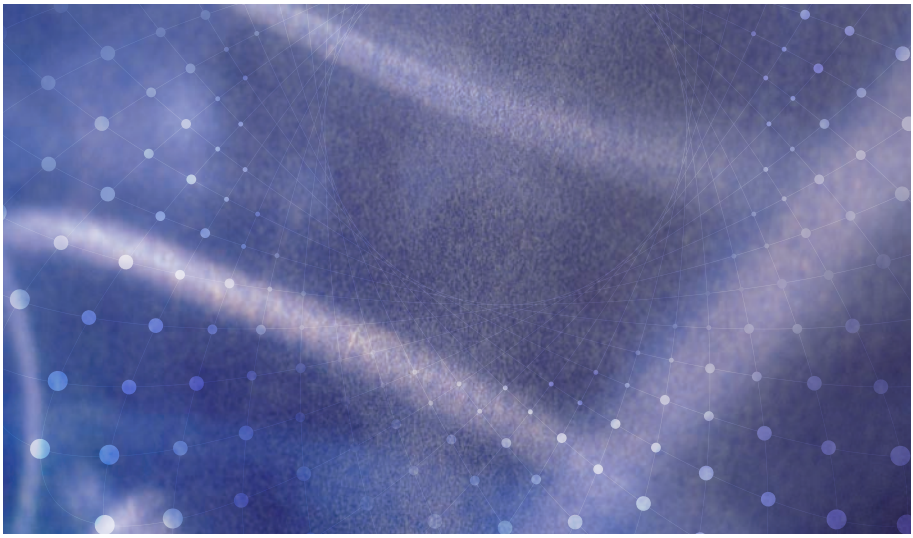
18:05 D **Risk Management**
Capt. Manfred Müller | General Manager Flight Safety Research, Deutsche Lufthansa AG, Germany

18:35 E **Closing Remarks**
Dr. Astrid Petersen | Chairperson of KTG, Germany

18:40 *Break*

19:00 – 23:00 **Social Evening**
DAtF-Reception and Meet-and-greet in the Exhibiton Area

Key Topic ı Outstanding Know-How & Sustainable Innovations



Focus Session

- Probability of, Consequences of and Compensation for a Nuclear Accident in the EU

  11 May ı 09:00 – 12:00 | Page 7

Topical Sessions

- The Fuel Cycle

  11 May ı 13:00 – 18:00 | Page 15

- Applying Innovative Technology to VVER Plants

  12 May ı 08:30 – 13:00 | Page 16

Technical Sessions

- Reactor Physics, Thermo and Fluid Dynamics

  11 May ı 09:00 – 12:00 | Page 8

- Know-How, New Build and Innovations

  12 May ı 08:30 – 13:30 | Page 17

Workshop

- Preserving Competence

  Part 1 11 May ı 09:00 – 11:50 | Page 9
  Part 2 12 May ı 08:30 – 13:00 | Page 10

Campus

- Nuclear Energy Campus

  11 May ı 10:30 – 15:30 | Page 13

Probability of, Consequences of and Compensation for a Nuclear Accident in the EU

A (theoretical) large-scale nuclear accident in the EU raises several related issues, such as the probability of extensive off-site damage or issues of emergency preparedness and response. A focus will be put on the radiological and non-radiological impact of an accident, based on experience from Fukushima. Finally, consequences for legal compensation will be discussed.

Coordinator	Dr. Christian Raetzke	CONLAR Consulting on Nuclear Law, Licensing and Regulation, Germany

09:00 – 09:30 **Improvements on French NPPs Following Fukushima Accident**
Jean Barbaud | Délégué sûreté à l'international, EDF, France

09:30 – 10:00 **Changes in the German Nuclear Emergency Preparedness and the European Perspective**
Jan Pauly | PreussenElektra, Germany

10:00 – 10:30 *Coffee Break*

10:30 – 11:00 **Organisation of the Disaster Control in the Vicinity of Nuclear Installations in Lower Saxony**
Dr. Michael Gründel | Ministry of the Environment, Energy and Climate Protection of Lower Saxony, Germany

11:00 – 11:30 **The Radiological and Non-Radiological Impact of the Fukushima Accident**
Dr. Wolfgang Weiss | Former Head of Radiation Protection and Health at the Federal Office for Radiation Protection, Former Chair of UNSCEAR, Germany

11:30 – 12:00 **The Fukushima Accident: Lessons Learned for Liability and Compensation**
Ximena Vásquez-Maignan | Head, Office of Legal Counsel, OECD Nuclear Energy Agency, France

Wednesday | May 11th 2016
09:00 – 12:00 Room: Hall 7

Reactor Physics, Thermo and Fluid Dynamics

Thermal Hydraulic Experiments and Applications

Chair Dr. Andreas Schaffrath | Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH , Germany

09:00 – 09:30 **Large-Scale Heat Transfer Experiments with Supercritical R134a Flowing Upward in a Circular Tube**
Florian Feuerstein | Karlsruhe Insitute of Technology (KIT), Germany

09:30 – 10:00 **Outline of Experimental Investigations on the Coolability of Debris Beds at the DEBRIS Test Facility, University of Stuttgart**
Simon Leininger | University of Stuttgart, Germany

10:00 – 10:30 *Coffee Break*

10:30 – 11:00 **Analyzing Different HPCI Operation Modes Simulated with ATHLET-CD Regarding Possible Core Degradation Phenomena in Fukushima-Daiichi Unit 3**
Christoph Bratfisch | Ruhr-Universität Bochum, Germany

11:00 – 11:15 **Mathematical Modelling for the Exchange of Thermal Radiation Between Fuel Rods in a PWR Fuel Assembly Storage**
Hassan Chahi | University of Applied Sciences Zittau/Görlitz, Germany

Neutron Kinetics Developments and Applications

Chair Dr. Winfried Zwermann | Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH , Germany

11:15 – 11:30 **Nuclear Data Uncertainty Analysis for Fast Reactor Calculations**
Friederike Bostelmann | Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany

11:30 – 11:45 **Nuclear Data Uncertainty Analysis of the Very High Temperature Reactor Critical Assembly Benchmark with XSUSA**
Friederike Bostelmann | Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany

11:45 – 12:00 **The Concept of Low Power Thorium Reactor Facility with Thermal Neutrons**
Vladimir Knyshev | National Research Tomsk Polytechnic University, Russia

Preserving Competence

Coordinator Dr. Wolfgang Steinwarz I Siempelkamp Ingenieur und Service GmbH, Germany

Wednesday I Part 1

09:00 – 09:05 Welcome and Opening Address
Dr. Wolfgang Steinwarz I Siempelkamp Ingenieur und Service GmbH, Germany

09:05 – 09:20 Model Development and Simulation of Passive Safety Systems in System Code ATHLET
Nina Neukam I Technische Universität Dresden, Germany
Responsible Professor Prof. Dr. Uwe Hampel

09:20 – 09:35 On the Influence of Local Flow Structure on the Boiling Crisis
Thomas Geißler I Technische Universität Dresden, Germany
Responsible Professor Prof. Dr. Uwe Hampel

09:35 – 09:50 Axial Fuel Rod Expansion Model in Nodal Code DYN3D for SFR Application
Evgeny Nikitin I Helmholtz-Zentrum Dresden-Rossendorf, Germany
Responsible Professors Dr. Emil Fridman, Prof. Andreas Pautz

09:50 – 10:05 Theoretical and Experimental Investigations for Diagnosis of the Core State during Severe Accidents
Sebastian Schmidt I Zittau/Görlitz University of Applied Sciences, Germany
Responsible Professor Prof. Dr. Alexander Kratzsch

10:05 – 10:35 Coffee Break

10:35 – 10:50 Analysis of SAM Coatings for Dropwise Condensation in Passive Safety Systems
Sebastian Unger I Technische Universität Dresden, Germany
Responsible Professor Prof. Dr. Uwe Hampel

10:50 – 11:05 Airplane Crash Analysis: Semi-Hard Impact on Reinforced Concrete Structures
Moritz Lönhoff I TU Kaiserslautern, Germany
Responsible Professor Prof. Dr. Hamid Sadegh-Azar

Workshop

Wednesday I May 11th 2016
09:00 – 11:50 Room: Hall 15
Thursday I May 12th 2016
08:30 – 13:00 Room: Hall 15

Preserving Competence

11:05 – 11:20 **Enhancement of ASTEC and COCOSYS Regarding Fission Product Release during MCCI**
Kathrin Agethen I Ruhr-Universität Bochum, Germany
Responsible Professor: Prof. Dr. Marco K. Koch

11:20 – 11:35 **Numerical Investigations on Disperse Multiphase Flows in Separation Filters**
Emilia v. Fritsch I Karlsruhe Insitute of Technology (KIT) / TU Dresden, Germany
Responsible Professors: Dipl.-Ing. Martin Brandauer, Prof. Dr. Sascha Gentes

11:35 – 11:50 **Experimental Study of Centrifugal Pumps under Gas Entrainment Conditions**
Thomas Schäfer I Helmholtz-Zentrum Dresden Rossendorf HZDR, Germany
Responsible Professor: Prof. Dr. Uwe Hampel

Outstanding Know-How & Sustainable Innovations

Thursday I Part 2

08:30 – 08:45 **Micro-Reinforced High Performance Concrete for Aircraft Impact and Missiles**
Sandro Zwecker I TU Kaiserslautern, Germany
Responsible Professor: Prof. Dr. Hamid Sadegh-Azar

08:45 – 09:00 **Development of Computational Methods to Describe the Mechanical Behavior of PWR Fuel Assemblies**
Andreas Wanninger I Technische Universität München, Germany
Responsible Professor: Prof. Dr. Rafael Macián-Juan

09:00 – 09:15 **Spatially-Resolved Flow Measurement of Steam in the Subchannels of a Fuel Element Mock-Up during Dry-Out**
Martin Arlit I Technische Universität Dresden, Germany
Responsible Professor: Prof. Dr. Uwe Hampel

09:15 – 09:30 **Cybersecurity Risk Assessment Using DBSy Models and Attack Trees**
Yuan Gao I AREVA GmbH, Germany
Responsible Professors: Karl Waedt, Prof. Dr. Jana Dittmann

Wednesday | May 11th 2016
09:00 – 11:50 Room: Hall 15
Thursday | May 12th 2016
08:30 – 13:00 Room: Hall 15

Preserving Competence

09:30 – 09:45 Experimental and Numerical Study of a Passive Flooding System
Nadine Kaczmarkiewicz | Technische Hochschule Deggendorf, Germany
Responsible Professor Prof. Dr. Giuseppe Bonfigli

09:45 – 10:00 Two-Phase Flow Studies in Complex Geometries
Martin Neumann | Technische Universität Dresden, Germany
Responsible Professor Prof. Dr. Uwe Hampel

10:00 – 10:30 Coffee Break

10:30 – 10:45 Analysis of Natural-Circulation Systems with Nonlinear Instabilities Perspectively on Application of Bifurkation Analysis by Reduced Order Modelling
René Manthey | Technische Universität Dresden, Germany
Responsible Professor Prof. Dr. Antonio Hurtado

10:45 – 11:00 Investigation of the Condensation Process on Inclined Tubes as Part of Passive Heat Transfer Systems
Frances Viereckl | Technische Universität Dresden, Germany
Responsible Professor Prof. Dr. Antonio Hurtado

11:00 – 11:15 Towards the CFD Simulation of Spent Fuel Pool Accidents Resulting in Partially Uncovered Fuel Assemblies
Ronald Oertel | Helmholz-Zentrum Dresden-Rossendorf, Germany
Responsible Professor Dr. Eckhard Krepper

11:15 – 11:30 Modeling of Particles Relocation in Degraded Cores of Light Water Reactors with Meltdown
Wael Hilali | Universität Stuttgart, Germany
Responsible Professor Prof. Dr. Jörg Starflinger

11:30 – 11:45 Using Gamma Radiation Measurements for Fuel Level Detection in PWR
Carsten Brachem | Technische Universität Dresden, Germany
Responsible Professor Prof. Dr. Uwe Hampel

11:45 – 12:00 Experimental lnvestigation of Isothermal Stratified Flow Mixing in a Horizontal TJunction
Alexander Isaev | Universität Stuttgart, Germany
Responsible Professor Prof. Dr. Eckart Laurien

Workshop

Wednesday | May 11th 2016
09:00 – 11:50 Room: Hall 15
Thursday | May 12th 2016
08:30 – 13:00 Room: Hall 15

Preserving Competence

12:00 – 12:15 Numerical Simulation of Droplet Flows in a Pressurized Water Reactor Containment
Christian Kaltenbach | Universität Stuttgart, Germany
Responsible Professor Prof. Dr. Eckart Laurien

12:15 – 12:30 Numerical Simulation of a Natural Convection Flow in the THAI+-Facility
Abdennaceur Mansour | Universität Stuttgart, Germany
Responsible Professor Prof. Dr. Eckart Laurien

12:30 – 12:45 Development of an Experimental Set-up for Investigations of Pipe Leckage
Stefan Schmid | Universität Stuttgart, Germany
Responsible Professor Prof. Dr. Eckart Laurien

12:45 – 13:00 Experimental Investigation of Different Static Mixers for the IKE/MPA Fluid-Structure-Interaction Facility
Mi Zhou | Universität Stuttgart, Germany
Responsible Professor Prof. Dr. Eckart Laurien

Nuclear Energy Campus

The Nuclear Energy Campus leads through the world of radioactivity, nuclear technology and radiation protection with individual stations. There will be contact persons available at all of the themed stands to offer information in form of short talks, movies, demonstrations or experiments. Besides, information on study options and career perspectives within nuclear industry are provided.

Coordinator Helge Gottschling | Young Generation Network, KTG, Germany

10:30 – 10:45 **Welcome Speech and Introduction to Nuclear Campus**
Helge Gottschling | Young Generation Network, KTG, Germany

10:45 – 11:45 **Visit Stations of Nuclear Campus I**
Tour in little groups

11:45 – 12:10 **Nuclear Energy: An Environmentalist Perspective**
Kirsty Gogan Alexander | Co-Founder & Director of "Energy for Humanity", UK

12:10 – 13:10 **Visit Stations of Nuclear Campus II**
Tour in little groups

13:10 – 13:40 *Lunch Break*

13:40 – 14:40 **Visit Stations of Nuclear Campus III**
Tour in little groups

14:40 – 14:50 **Short Presentation of KTG Young Generation**
Yvonne Schmidt-Wohlfarth | Spokesperson of the Board, Young Generation Network, KTG, Germany

14:50 – 15:30 **Round Table and Discussion: Future Career Perspectives within Nuclear Industry**
Participants Members of the KTG Young Generation Board

15:30 *Individual Visit of the Industrial Exhibition, End of Campus*

Wednesday | May 11th 2016
10:30 – 15:30 | Room: Hall 3

Stations of Nuclear Campus

1 Fuel Assembly Production: Technics and Perspective Worldwide

Dr. Markus Schlenker | Fuel Design Thermal-Hydraulics, AREVA GmbH, Germany

Elmer Loeprich | Manager Plant Maintenance Support, URENCO Deutschland GmbH, Germany

Sven Ostendorf | Shift Operations, URENCO Deutschland GmbH, Germany

Dr. Hendrik Wiesel | Head of Laboratory, Fuel Assembly Production, ANF GmbH, Germany

2 Nuclear Power Plants Phase Out – From Operations to Dismantling

Carsten George | Deputy Manager, Mechanical Engineering, Kernkraftwerk Gundremmingen GmbH, Germany

Thomas Zimmermann | Young Generation Network, KTG, Germany

3 Safe Disposal – From Power Plant to Final Repository

Burghard Rosen | Public Relations Manager, GNS Gesellschaft für Nuklear-Service mbH, Germany

4 View into the Future: Advanced Reactor Concepts of Nuclear Fission and Fusion

Nico Bernt | Scientific Assistant, Faculty of Mechanical Engineering, Institute of Power Engineering, Technical University Dresden, Germany

Georg Greifzu | Scientific Assistant, Faculty of Mechanical Engineering, Institute of Power Engineering, Technical University Dresden, Germany

5 Radioactivity and Radiation Protection

Sven Jansen | Head of Division Inhouse Radiation Protection, VKTA, Germany

Jörg Hauptmann | Nuclear Material Specialist, Inhouse Radiation Protection, VKTA, Germany

6 Medical Diagnostics with Radioactive Molecules

Prof. Dr. Janos Mester | Klinik für Nuklearmedizin, UKE Hamburg, Germany

The Fuel Cycle

Nuclear Power is not only about reactors. In fact, the nuclear fuel cycle requires just as much know-how, investments and decades of experience. Installations of the fuel cycle are concentrated in only a few countries and companies. The more interesting it is for the nuclear community as a whole to be aware of the diverse technologies and challenges related to uranium mining, conversion, enrichment, the trading of these services, used fuel recycling and fabrication of MOX fuel elements. The session will feature first-hand speakers from all these different elements of the nuclear value chain.

Coordinator	Dr. Stefan Nießen	Vice President Research & Innovation, AREVA GmbH, Germany

13:00 – 13:30 **Closed or Open Fuel Cycle Capabilities? Strategic Choices and their Commercial, Regulatory, Financial, Research and Security Implications**
Hergen Haye | Director, Nuclear Futures Limited, UK
previous UK Department of Energy and Climate Change

13:30 – 14:00 **Uranium Mining: How Certain is Future Uranium Supply?**
Christian Polak | AREVA Mines, France

14:00 – 14:30 **Conversion**
Pierre Durante | AREVA Front End, France

14:30 – 15:00 **Enrichment**
Olga Kudoyarova | TENEX, Russia

15:00 – 15:30 Coffee Break

15:30 – 16:00 **Reprocessing: Decades of Experience and Still Progress**
Eric Blanc | Former Deputy Head of La Hague, France

16:00 – 16:30 **HLLW Vitrification An Important Step of the Nuclear Fuel Cycle**
Hans Genthner | CEO, Kraftanlagen Heidelberg GmbH, Germany

16:30 – 17:00 **MOX Fabrication: Experience and Challenges**
Philippe Pinson | Back-end Business GroupDirection Sales & Operations Planning, AREVA NC

17:00 – 17:30 **PRISM Concept for the UK: Fast Reactors Close the Cycle**
David J. Powell | Vice President, GE-Hitachi, UK

17:30 – 18:00 **Trading: What Are the Current Market Trends?**
Friedel Aul | CEO, Urangesellschaft mbH, Germany

Thursday | May 12th 2016
08:30 – 13:00 | Room: Hall 7

Applying Innovative Technology to VVER Plants

This session has the objective to build new bridges between providers of innovative technologies and utilities operating VVER reactors and to foster an exciting exchange of information.

Coordinator	Dr. Martin Pache	Marketing Director Automation & Engineering, Westinghouse Electric Germany GmbH, Germany
	Ulf Benjaminsson	Marketing Manager Nuclear Fuel, Westinghouse Electric Sweden AB, Sweden

08:30 – 08:55	**Introduction to VVER Technology: Concept and Actual Status of Implementation of Ukrainian Post-Fukushima Safety Upgrades**	
	Oleksandar Markov	NPP Operation Support Institute, Ukraine
08:55 – 09:20	**Operator View: Future Need for Modifications for Lifetime Extension in VVER Plants**	
	Sergiy Tarakanov	Energoatom, Ukraine
09:20 – 09:45	**Operator View: Experiences with the Implementation of Novel Waste Management Technologies in VVER Plants**	
	Jussi-Matti Mäki	Fortum Power and Heat Oy, Finland
10:00 – 10:30	*Coffee Break*	
10:30 – 10:55	**Expert View: Nuclear Requirements for Equipment of International VVER New Build. Cooperation Between Russian TSO ZAES and TÜV SÜD**	
	Dr. Thomas Lötsch	TÜV Süd, Germany
	Sergey Butskikh	Zarubyezh Atom Energo Stroy, Russia
10:55 – 11:20	**Supplier View: Diversification of the VVER Fuel Market and Overcoming Challenges**	
	Dr. Carina Önneby	Westinghouse, Sweden
11:20 – 11:45	**Supplier View: Examples and Experiences with Product Adaptations for VVER Reactors**	
	Dr. Detlev Reichenbach	AREVA, Germany
11:45 – 12:10	**Supplier View: APROS Multipurpose Simulation Software for Improvement of Safety and Efficiency of VVERs**	
	Kari Porkholm	Fortum, Finland
12:10 – 12:35	**Supplier View: Updating the RAW Management in Ukraine Considering the Particular Relevance for VVER**	
	Dr. Hagen Jung	NUKEM Technologies Engineering Services GmbH, Germany
12:35 – 13:00	**Panel Discussion**	All Participants

Know-How, New Build and Innovations

Chair Dr. Matthias Lamm | R&D Manager, AREVA GmbH, Germany

Innovation in Operation

08:30 – 09:00 **From the Basic Load Cover to Covering Gaps Load**
Prof. Dr. Helmut Alt | FH Aachen, Germany

09:00 – 09:30 **Improving Automated Load Flexibility in Nuclear Power Plants (NPP)**
Andreas Kuhn | AREVA GmbH, Germany

Neutronics for Next Generation Power Plants

09:30 – 10:00 **Neutronics Source Modeling for Stellarator Power Reactors of the HELIAS-Type**
André Häußler | Karlsruhe Insitute of Technology (KIT), Germany

10:00 – 10:30 Coffee Break

10:30 – 11:00 **Neutronic and Fuel Performance Calculations for the ALLEGRO Reactor Using MCNP and the TRANSURANUS Code**
Christian Herold | RWTH Aachen, Germany

Innovative Products and Technologies

11:00 – 11:30 **AFCEN RCC-CW Code: Containment Tests and Monitoring**
Dr. Burkhard Wienand | AREVA GmbH, Germany

11:30 – 11:45 **The Pressure Equalization Ceiling of Pressurized Water Reactors**
Dr. Dirk Ostermann | AREVA GmbH, Germany

11:45 – 12:00 **Influence of Remaining Service Life on the Design of Nuclear Building Structures**
Rüdiger Meiswinkel | MBI Bautechnik GmbH, Germany

12:00 – 12:15 **Venting of Hydrogen with Selective Hydrogen Filters within the Depressurization System of the BWR in Gundremmingen**
Dimitri-Dietrich Menschow | Westinghouse Electric Germany GmbH, Germany

Technical Session

Thursday | May 12th 2016
08:30 – 13:30 | Room: Hall 12

Know-How, New Build and Innovations

12:15 – 12:30 **Inspection of Inaccessible Areasthe Heysham Case**
Helmut Jarisch | Westinghouse Electric Germany GmbH, Germany

12:30 – 12:45 **Study of Potential Use of Augmented Reality in Nuclear Applications**
Dr. Felix Philipp Sassen | Westinghouse Electric Germany GmbH, Germany

12:45 – 13:00 **Reducing False Alarms in Portal Monitors by Patented FastTrack-Algorithm**
Christian Günther | Mirion Technologies (RADOS) GmbH, Germany

Know-How

13:00 – 13:30 **Education and Training in Nuclear Decommissioning Needs, Opportunities and Challenges**
Hans Guenther Schneider | European Commission, Belgium

Key Topic ı Enhanced Safety & Operation Excellence

Focus Sessions

- Radiation Protection
  10 May ı 09:00 – 11:50 | Page 20
- Sustainable Reactor Operation Management – Safe, Efficient and Valuable
  10 May ı 09:00 – 11:45 | Page 21

Topical Sessions

- Operational Experience
  11 May ı 13:00 – 16:30 | Page 25
- Fuel and Safety
  12 May ı 08:30 – 13:00 | Page 26

Technical Session

- Operation and Safety of Nuclear Installations, Fuel
  11 May ı 08:15 – 19:15 | Page 22

Tuesday | May 10th 2016
09:00 – 11:50 | Room: Hall 7

Radiation Protection

Protection against ionizing radiation is an item touching us in various fields of our activities: operation of nuclear power plants, decommissioning, waste treatment and disposal, health care, etc.
This session is organized to demonstrate the high importance of radiation safety culture as part of the overall safety culture. It concentrates on radiation protection as a task of occupational safety – but also of other areas of activities: industry dealing with naturally occurring radioactive materials and, more generally, natural background sources.

Coordinator	Erik Baumann	AREVA GmbH, Germany
Co-Coordinator	Dr. Angelika Bohnstedt	Karlsruhe Institute of Technology (KIT), Germany

09:00 – 09:20 **Radiation Protection – Changes When Implementing the Guideline 2013/59 Euratom Compared to Established Radiation Protection Goals**
Dr. Margot Horn | TÜV Rheinland Industrie Service GmbH, Germany

09:20 – 09:40 **Hormesis – a Miracle in Reality? Discussion Required.**
Jan-Christian Lewitz | General Manager, LTZ-Consulting GmbH, Germany

09:55 – 10:15 **Radioactivity and Radiation Protection in NORM (Naturally Occurring Radioactive Materials) Industry – an Overview**
Dr. habil. Rainer Gellermann | Nuclear Control & Consult GmbH, Member of the SKK and the association, Germany

10:15 – 10:30 *Coffee Break*

10:30 – 10:50 **Has Radiation Protection been Adapted for Dismantling?**
Andreas Jüterbock | Studsvik GmbH & Co. KG, Germany

10:50 – 11:10 **TECHREC WP3 – Development of EU Technical Recommendations for Monitoring Occupational Intakes of Radionuclides**
Dr. George Etherington | Group Leader, Internal Dosimetry Radiation Hazards and Emergencies Department Centre for Radiation, Chemical and Environmental Hazards, Public Health UK PHE

11:10 – 11:30 **Fukushima – What is the Implication for Radiation Protection**
Dr. Wolfgang Weiss | Former Head of the Department of Radiation Protection and Health of the Federal Office for Radiation Protection (BfS), Former Chair of UNSCEAR, Germany

11:30 – 11:50 **Boron Neutron Capture Therapie (BNCT) – Physical and Radiation Protection Aspects of the Application of Powerful Tool Against Cancer in Non-Operable Cases**
Dr. Marina Sokcic-Kostic | Principal Engineer, I&C and Electrical Systems, Radiation Monitoring Systems, NUKEM Technologies Engineering Services GmbH, Germany

Sustainable Reactor Operation Management – Safe, Efficient and Valuable

The market prices for generated electricity have decreased continuously in the last 4 years as a consequence of the "Energiewende". This situation puts a lot of pressure also to the operation of NPPs in Germany to strive more than ever for Operational Excellence. Therefore the operational set-up of the plants has to be optimized continuously in all processes of the plant organization, for example maintenance, inspection, cyclic testing, ageing- and lifetime management, management systems, work preparations to guarantee safety, availability and improved competitiveness under challenging market conditions. Within this session examples for good practices in these fields will be presented and discussed.

Coordinator Dr. Erwin Fischer | Member of the Management Board, E.ON Kernkraft GmbH, Germany

09:00 – 09:25 Maintenance Strategy, a Precondition for Operational Excellence
Burkhard Cramer | NPP Oskarshamn, Sweden

09:25 – 09:50 Reliable Inspection Concepts for Safety-Related Valves
Parkin Borsum | TÜV Süd, Germany

09:50 – 10:15 Aging Management – a Contribution to Held NPPs in Safe Condition
Dr. Frank Michel | Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany

10:15 – 10:30 Coffee Break

10:30 – 10:55 Post-Fukushima, Lessons Learned Resulting in Additional Safety Measures for NPPs
Dr. Andreas Strohm | EnBW Kernkraft GmbH, Germany

10:55 – 11:20 One.BFS – Operational Management System With Collected 120 Years of Experience
Gerhard Herz | E.ON Kernkraft GmbH, Germany

11:20 – 11:45 "Reactivity-Management", a Measure to Prevent Unsafe Situations in Operating NPPs
Markus Luginger | NPP Isar, Germany

Wednesday | May 11th 2016
08:15 – 19:15 | Room: Hall 8

Operation and Safety of Nuclear Installations, Fuel

Spent Fuel Pool and Calculations

Chair Dr. Jürgen Sydow | Project Manager, TÜV NORD GmbH & Co.KG, Germany

08:15 – 08:30 **Threshold Nuclear-Physical Processes in Multiplying Fuel-Rod Arrays and Systems with Thorium**
Konstantin Savasichev | National Research Tomsk Polytechnic University, Russia

08:30 – 08:45 **Development of Passive Spent Fuel Pool Cooling by Heat Pipes**
Prof. Dr. Jörg Starflinger | University of Stuttgart, Germany

08:45 – 09:00 **Advanced Cooling Tube – Mobile Heat Exchanger in the Shape of a Fuel Assembly for Spent Fuel Pool Cooling**
Matthias Reuter | AREVA GmbH, Germany

09:00 – 09:15 **Retrofitting a Spent Fuel Pool Spray System Against the Background of the Reactor Accident in Fukushima Daiichi**
Christian Giesel | Westinghouse Electric Germany GmbH, Germany

09:15 – 09:45 **Simulation of Hydrogen Combustion During Spray Operation with COCOSYS**
Tobias Jankowski | Ruhr-Universität Bochum, Germany

09:45 – 10:00 **Shielding and Criticality Analyses for Handling of a Quiver for Special Fuel Rods**
Dr. Sven Tittelbach | WTI GmbH, Germany

10:00 – 10:30 *Coffee Break*

Simulation

Chair Dr. Thorsten Hollands | Safety Manager, Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany

10:30 – 11:00 **A Comparative Assessment of ATHLET-CD and MELCOR by Simulating the Experiment PHEBUS FPT1**
Christian Bratfisch | Ruhr-Universität Bochum, Germany

Operation and Safety of Nuclear Installations, Fuel

11:00 – 11:30 **Reducing In-Core Zinc Borate Predcipitation After Loca in Pressurized Water Reactors**
Dr. Holger Kryk | Helmholtz-Zentrum Dresden-Rossendorf, Germany

11:30 – 12:00 **In-Core Zinc Borate Precipitations after LOCA in Pressurized Water Reactors – Past Experiences and Upcoming Investigations**
Dr. André Seeliger | Hochschule Zittau/Görlitz, Germany

12:00 – 13:00 Lunch Break

Insights into Operational Experience

Chair Dr. Sven Tittelbach | WTI GmbH, Germany

13:00 – 13:30 **The Periodic Safety Review 2016 of the NPP Brokdorf**
Ralf Wohlstein | E.ON Kernkraft GmbH, Germany

13:30 – 13:45 **Operational Experience of Siemens/KWU LWR Nuclear Power Plants – A Successful Story**
Dr. Renate Kilian | AREVA GmbH, Germany

13:45 – 14:00 **A Comprehensive Approach to Experience Based Learning by Combining Proactive and Reactive Learning within One Management System**
Juliane Ahrens | SOL-VE GmbH, Germany
Hans Maimer | SOL-VE GmbH, Germany
Oliver Wendt | Vattenfall GmbH, Germany

14:00 – 14:30 **Cleavage Fracture Assessment of Components under Transient Thermomechanical Loading**
Johannes Tlatlik | Fraunhofer Institute for Mechanics of Materials, Germany

14:30 – 14:45 **The Effect of Heat Treatments at Different Plastic States on the Isotropic Hardening Behavior of Austenitic Stainless Steel**
Paul Wilhelm | AREVA GmbH, Germany

14:45 – 15:00 **Selected Methods and Detail Solutions of the RPV: Water Level Measurement for Boiling Water Reactors**
Frank Dräger | E.ON Kernkraft GmbH, Germany

Technical Session

Wednesday | May 11th 2016
08:15 – 19:15 Room: Hall 8

Operation and Safety of Nuclear Installations, Fuel

15:00 – 15:30 Coffee Break

Safety, IT, Hazards and PSA

Chair Dr. Anke Traichel | Head of Department Safety, NUKEM Technologies Engineering Services GmbH, Germany

15:30 – 16:00 Modeling Attacks on Critical Infrastructure: A first Summary of existing Approaches
Robert Fischer | Otto-von-Guericke University of Magdeburg, Germany

16:00 – 16:30 Nuclear Safety and Risk-based Cybersecurity Testing
Yuan Gao | AREVA GmbH, Germany

16:30 – 16:45 Optimized Process for Whisker Removal from I&C Boards
André Jurisch | AREVA GmbH, Germany

16:45 – 17:00 Particulate Fission Product Wash-Down from Containment Walls and Installation Surfaces
Dr. Martin Freitag | Becker Technologies GmbH, Germany

17:00 – 17:30 Temporary Transportation Openings in Reactor Buildings and Liner – Planning and Execution Aspects
Andre Oberste-Schemmann | Westinghouse Electric Germany, Germany

17:30 – 18:00 Verification of the Earthquake Safety of Electrical Equipment
Dr. Marcus Ries | Wölfel Beratende Ingenieure, GmbH Co KG, Germany

18:00 – 18:15 Application of the Reciprocity Theory to Calculate Organ Doses in Phantoms Immersed in Water
Dr. Mauritius Hiller | Oak Ridge National Lab, USA

18:15 – 18:30 CRAFT – Control Room Accident Filtration
Marina Welker | AREVA GmbH, Germany

18:30 – 18:45 Equipment Qualification: An Assessment for Nuclear Safety
Dr. Felix Zantow | AREVA GmbH, Germany

18:45 – 19:15 Containment Event Tree for the Level 2 Probabilistic Safety Assessment of EU-ABWR-Comparison with the CET for ESBWR and Development of Selected Split Fractions
Özlem Yilmaz | University of Stuttgart, Germany

Operational Experience

With worldwide over 15.000 reactor years a treasure of operating experience has now been compiled. Today, the technology is mature and safe, nevertheless additional margins on safety and economy can still be raised. In a few cases events and findings lead to further investigations and subsequent improvements, shared as within probably no other industry. For more than half a century, overall nuclear safety has therefore continuously improved by a factor of ten every ten years. This session is therefore devoted to some exemplary operational aspects, being prominent on the operator's agendas of today.

Coordinator Dr. Ludger Mohrbach I VGB PowerTech e.V., Germany

13:00 – 13:30 **Open Phase Events – Facts and Challenges from a NPP Operator's Perspective**
Christian Reisenberger I Kernkraftwerk Isar, Germany

13:30 – 14:00 **Robustness of Lightning Protection in German Nuclear Power Plants**
Prof. Dr.-Ing. Alexander Kern I FH Aachen, Germany

14:00 – 14:30 **Repair Concepts for PWR Fuel Assembly Guide Pins**
Andreas Lemm I AREVA GmbH, Germany

14:30 – 15:00 **Long-term Operation of NPP: Key Issues in Safety Assessment**
Dr. Urs Weidmann I KNS Eidgenössische Kommission für Nukleare Sicherheit, Switzerland

15:00 – 15:30 Coffee Break

15:30 – 16:00 **Grid Services from Nuclear Power Plants**
Markus Bresler I E.ON Kernkraft GmbH, Germany

16:00 – 16:30 **New VGB Standard "Professional Leadership Behaviour"**
Dr. Christian Mönning / Dr. Tim Büscher I RWE Power, Germany
Eckhard Nithack / Jörg Ritter I EnKK, Germany

Fuel and Safety

The Topical Session Fuel and Safety addresses current research issues and developments in Nuclear Reactor Safety. After an overview two topics are considered in depth. These are criteria for Loss of Coolant (LOCA) Analyses and investigations of heat removal from spent fuel pools. The presentation will be given by nuclear stakeholders from industry, research and TSO reflecting inter alia the view of the German Reactor Safety Commission (RSK) and the progress made the last years.

Coordinators	Dr. Andreas Schaffrath	Head of Division Reactor Safety Research, Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany
	Prof. Dr. Marco K. Koch	Ruhr-Universität Bochum, Germany
	Dr. Tatiana Salnikova	AREVA GmbH, Germany

08:30 – 09:00 Current Research Topics and Further Development in Nuclear Reactor Safety
Uwe Stoll — AREVA GmbH, Germany

09:00 – 09:30 RSK Amendment of Acceptance Criteria for the Analysis of LOCA
Matthias Brettner — Physikerbüro Bremen, Germany

09:30 – 10:00 A New Criterion for the Evidence of the Core Coolability at LOCA
Dr. H.-G. Sonnenburg — Gesellschaft für Anlagen- und Reaktorsicherheit gGmbH, Germany

10:00 – 10:30 Coffee Break

10:30 – 11:00 AREVA Verification Methodology of New Embrittlement Criterion
Dietmar Deuble — AREVA GmbH, Germany

11:00 – 11:30 Regulatory Requirements with Respect to Spent Fuel Pool-Cooling
Dr. Christoph Pistner — Öko-Institut e.V., Germany

11:30 – 12:00 Experimental Studies on Residual Heat Removal from Evaporating Fuel Spent Fuel Pools
Christine Partmann — Technische Universität Dresden, Germany

12:00 – 12:30 Experimental and Analytical Investigation of the Performance of Heat Pipes for Residual Heat Removal from Spent Fuel Pools
Prof. Dr. Jörg Starflinger — Universität Stuttgart, Germany
Claudia Graß — Technische Hochschule Georg Simon Ohm, Germany
Dr. Andreas Schaffrath — Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbh, Germany
Dr. Markus Pöhlmann — AREVA GmbH, Germany

12:30 – 13:00 New Technical Concepts of Spent Fuel Pool-Cooling and Implementation
Leo Ornot — AREVA GmbH, Germany

Key Topic | Decommissioning Experience & Waste Management Solutions

Focus Session

- Challenges of the New Search for a HLW-Repository in Germany
  10 May | 09:00 – 12:00 | Page 28

Topical Sessions

- Decommissioning – an International Survey
  10 May | 09:00 – 11:30 | Page 29
- German Decommissioning and Waste Management – News and Beyond
  11 May | 13:30 – 16:00 | Page 33
- Optimized Spent Fuel Management from Fuel Pond to Final Repository
  12 May | 08:30 – 12:00 | Page 34

Technical Sessions

- Radioactive Waste Management and Storage
  11 May | 09:00 – 17:00 | Page 30
- Decommissioning of Nuclear Installations
  12 May | 08:30 – 12:45 | Page 35

Tuesday | May 10th 2016
09:00 – 12:00 Room: Hall 6

Challenges of the New Search for a HLW-Repository in Germany

In the public perception, the search for a repository for high-level radioactive waste is dominated by the coverage on the Commission "storage of high-level radioactive waste" which should prepare a site selection process by mid-2016. During the work of the so called "Repository Commission", research in the field of disposal meanwhile has not stopped. Numerous other projects, some of them presented and discussed in this focus session, illuminate the various aspects related to final disposal and site selection processes and provide an important basis for the start of the new German site selection process.

Coordinator Stefan Weber | Project Manager RAW Management, GNS Gesellschaft für Nuklear-Service mbH, Germany

09:00 – 09:30 **The Work of the Commission "Storage of High-Level Radioactive Waste": An Interim Conclusion**
Michael Sailer | CEO Öko-Institut, Co-Chair of Working Group 3 of the Repository Commission, Germany

09:30 – 10:00 **Site Selection in Switzerland: Content and Contribution of the Technical-Scientific Work**
Dr. Piet Zuidema | Member of Management Board of NAGRA, Switzerland

10:15 – 10:30 Coffee Break

10:30 – 11:00 **The Project ENTRIA (Options for the Disposal of Radioactive Waste: Interdisciplinary Analyzes and Development of Valuation Bases): Overview and Selected Interim Results**
Prof. Klaus-Jürgen Röhlig | TU Clausthal, Speaker of the ENTRIA Project, Germany

11:00 – 11:30 **Site Selection – How Can Repositories in Different Host Rocks be Compared?**
Dr. Klaus Fischer-Appelt | Department Head "Final Disposal", Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany

11:30 – 12:00 **Where To Dispose of the Radioactive Waste? The Population Has a Say.**
Dr. Michael Aebersold | Head of Section Disposal of Radioactive Waste, Bundesamt für Energie BFE, Switzerland

D This session will be held in German with simultaneous English translation.

Decommissioning – An International Survey

Decommissioning of nuclear power plants is state of the art in a lot of countries. International guidance in case of safety standards is given from the International Atomic Energy Agency, the safety guide for decommissioning of nuclear power plants, research reactors and other nuclear fuel cycle facilities will be finalized in 2016 and be presented as introduction of the session. Depending on national boundary conditions decommissioning strategies varies from country to country. Additionally countries are in different stages in performing decommissioning activities. The international survey applies to projects in USA, Spain, Switzerland and Germany. While Switzerland is in the planning phase, USA, Spain and Germany have already ongoing decommissioning projects.

Coordinator Dr. Ralf Versemann I RWE Power AG, Germany

09:00 – 09:25 Decommissioning of Nuclear Power Plants – Actual Guidance from the International Atom Energy Agency
John Rowat I International Atomic Energy Agency (IAEA)

09:25 – 09:50 Lessons Learned and Implemented for Decommissioning of three YANKEE Reactors
Robert Bonner I AECOM Nuclear & Environment
Matthew J. Marston I AECOM Nuclear & Environment

09:50 – 10:15 Successful Dismantling of the José Cabrera Reactor Vessel and Internals
Joseph Boucau I Westinghouse Electric Company
Per Segerud I Westinghouse Electric Company
Alejandro Rodríguez I ENRESA

10:15 – 10:30 Coffee Break

10:30 – 11:00 Decommissioning in Switzerland – Legal Framework and Planned Procedure for NPP Mühleberg
Stefan Klute I BKW Energie AG, Switzerland

11:00 – 11:30 Decommissioning in Germany – How Well We Are Prepared for the Future?
Dr. Erich Gerhards I E.ON Kernkraft GmbH, Germany

Radioactive Waste Management and Storage

Chair Klaus Büttner I NUKEM Technologies Engineering Services GmbH, Germany

Characterisation

09:00 – 09:30 Measurement for Radioactive Waste or Recyclables to be Released From the Control Area of Nuclear Facilities
Dr. Marina Sokcic-Kostic I NUKEM Technologies Engineering Services GmbH, Germany

09:30 – 10:00 Radiological Characterization of Mosaik® Casks with an Inhomogeneous Activity Distribution
Dr. Andreas Havenith I Aachen Institute for Nuclear Training GmbH (AiNT), CEO, Germany

10:00 – 10:30 Coffee Break

10:30 – 10:45 Monte-Carlo Based Study of the Depth-Dose Rate Curve for Employees in an Underground Nuclear Waste Disposal Facility
Hector Sauri Suarez I Karlsruhe Insitute of Technology (KIT), Germany

10:45 – 11:00 Experimental Validation of Radionuclide Inventories Calculation of Irradiated Fuel Rod Components
Ron Dagan I Karlsruhe Institute of Technology, Germany

Treatment

11:00 – 11:15 Quantity and Management of Graphite/Carbon Brick from High Temperature and Research Reactors in Germany
Sabine Dörr I DBE TECHNOLOGY GmbH, Germany

11:15 – 11:30 Synthesis of Functionalized Zeolite for Radioactive Cesium Removal and its Thermal Stability Study
Dr. Keun-Young Lee I Korea Atomic Energy Research Institute, Republic of Korea

D/E This session can be held in German with simultaneous English translation.

Radioactive Waste Management and Storage

11:30 – 12:00 **Shield Test of Fuel Inspection Hot Cell (FIHC) Structures and Embedded Parts with Sealed Co-60Source: Execution and Results**
Jan Christian Lewitz | LTZ Consulting GmbH, Germany

12:00 – 13:00 Lunch Break

13:00 – 13:30 **Process of Radioactive Mercury Treatment and Handling for Elimination under Safety-Standards – Prometheus**
Dr. John Kettler et al. | Aachen Institute for Nuclear Training GmbH, CEO, Forschungszentrum Jülich GmbH, Germany

Storage

13:30 – 13:45 **Accelerations Acting on a Nuclear Transport Package During a Routine Transport on the Road**
Dr. Jörn Becker | GNS Gesellschaft für Nuklear-Service mbH, Germany

13:45 – 14:15 **Safe but Simple Transportation of Casks Loaded with High Level Radioactive Waste Down to Host Rock**
Dr. Peter Leister | Germany

14:15 – 14:30 **Federal Approval of Legacy Waste Containers for the Konrad Repository – Strategies and Challenges**
Matthias Dittrich | BAM Bundesanstalt für Materialforschung und -prüfung, Germany

14:30 – 15:00 **Safety Regulations and Implementation in the Development of New Transport and Storage Casks for All Kinds of Active Waste**
Norbert Schmidt | AREVA NC, France

15:00 – 15:30 Coffee Break

15:30 – 16:00 **Distribution of Dismantled Material to Disposal Routeswith Respect to the Concept Decay Storage**
Dr. Georg Bacmeister | E.ON Technologies GmbH, Germany0

D/E This session can be held in German with simultaneous English translation.

Technical Session

Wednesday I May 11th 2016
09:00 – 17:00 Room: Hall 13/14

Radioactive Waste Management and Storage

16:00 – 16:15 Direkte Endlagerung von Transport-und Lagerbehältern (DIREGT) – Status Quo und Perspektiven –
Dr. Astrid Jussofie I GNS Gesellschaft für Nuklear Service mbH, Germany

16:15 – 16:45 Strategies for Final Disposal of HLW in German Clay Formations
Dr. André Lommerzheim I DBE TECHNOLOGY GmbH, Germany

16:45 – 17:00 Planning of the Delivery Process of Repository-Compatible Waste Packages with the Aid of the Konrad Final Disposal IT Platform
Dr. Martin Imhäuser I GNS Gesellschaft für Nuklear-Service mbH, Germany

D/E This session can be held in German with simultaneous English translation.

German Decommissioning and Waste Management – News and Beyond

There were many challenges coming from the different decommissioning projects in Germany as soon as they gathered pace. Industry has turned out resourceful and innovative though dealing with that challenges as they appear. This session shows innovative products and business schemes to deal with the decommissioning and waste management challenges on a daily basis.

Coordinator	Thomas Seipolt	| Managing Director, NUKEM Technologies Engineering Services GmbH, Germany

13:30 – 14:00 **Radiological Characterization at Different Decommissioning Stages**
Detlef Beltz | TÜV Nord Ensys Hannover GmbH & Co. KG, Germany

14:00 – 14:30 **Calculation of Activated Parts Radiological Conditions**
Luc Schlömer | WTI GmbH, Germany
Prof. Dr.-Ing. Peter Phlippen | WTI GmbH, Germany
Bernard Lukas | EnBW Kernkraft GmbH, Germany

14:30 – 15:00 **Radiological Characterization of Activated Components**
Tba

15:00 – 15:30 *Coffee Break*

15:30 – 16:00 **Radiological Waste Handling at Brunsbüttel NPP**
Tba

D This session will be held in German with simultaneous English translation.

Thursday I May 12th 2016
08:30 – 12:00 Room: Hall 6

Optimized Spent Fuel Management from Fuel Pond to Final Repository

The management of spent fuel assemblies from nuclear power plants so far has been mainly oriented towards the requirements of the various forms of interim storage due to a lack of appropriate final repositories. While the status "free from nuclear fuel" is an important precondition for the actual dismantling of already or soon to be shut down nuclear power plants, a thoroughly elaborated and comprehensive disposal chain can provide a sustainable contribution to a safe and economic operation of the globally planned new build projects in the long run as well as to the power plants running for an extended life-time. During this Topical Session the various approaches and objectives in different countries shall be examined as well as new technical concepts and regulatory frameworks.

Coordinators	Dr. Jürgen Skrzyppek	I GNS Gesellschaft für Nuklear-Service mbH, Germany
	Michael Köbl	I GNS Gesellschaft für Nuklear-Service mbH, Germany

08:30 – 09:00 **Spent Fuel Management in Switzerland**
Dr. Tony Williams I Head Nuclear Fuel Department, Axpo Power AG, Switzerland

09:00 – 09:30 **Dry Instead of Wet – Paradigm Change in Korea**
Dr. Yong Deog Kim I Senior Researcher, KHNP, Korea

09:30 – 10:00 **Spent Fuel Management and Storage Strategy in Belgium**
Luc Janssen / Joost Kerkhofs I Manager Backend Nuclear Fuel Cycle, Synatom, Belgium

10:00 – 10:30 Coffee Break

10:30 – 11:00 **Free from Nuclear Fuel – A Solution for Non Standard Fuel Rods**
Bernhard Kühne I Divisional Director Projects, GNS Gesellschaft für Nuklear-Service mbH, Germany

11:00 – 11:30 **Experiences and Perspectives of Wet Storage**
Leo Ornot I Director Office and Development, AREVA GmbH, Germany

11:30 – 12:00 **Experience in Organizing and Implementing the Decommissioning of Ignalina Nuclear Power Plant with RBMK 1500 Reactors**
Darius Janulevičius I Director General, Ignalina Nuclear Power Plant, Lithuania
Saulius Urbonavičius I Advisor to Director General, Ignalina Nuclear Power Plant, Lithuania

Decommissioning of Nuclear Installations

Decommissioning of Nuclear Installations I

Chair Pascal Brüggemann I Senior Engineer, NUKEM Technologies Engineering Services GmbH, Germany

08:30 – 08:45 **Optimization of Waste Management during Decommissioning of NPP with Special Focus on Metal Recycling Aspects**
Dr. Frank Charlier I RWTH Aachen - NET, Germany

08:45 – 09:00 **Radiological Analyses for Final Disposal of Decommissionning Waste**
Dr. Aliki van Heek I NRG, Netherlands

09:00 – 09:30 **Applications of Underwater-Robotics in Nuclear Power Plants**
Gunnar Heinzler I AREVA GmbH, Germany

09:30 – 10:00 **Remote Dismantling and Packaging of the RPV and Thermal Shield at the Obrigheim NPP**
Karsten Schmidt I Energiewerke Nord GmbH, Germany

10:00 – 10:30 Coffee Break

Decommissioning of Nuclear Installations II

Chair Dr. Bernhard Wiechers I Westinghouse Electric Germany GmbH, Germany

10:30 – 10:50 **New Approaches in Cutting Zirconium Alloy Components of Nuclearfacilities – Results of an BmBF-Research Project**
Pascal Brüggemann I NUKEM Technologies Engineering Services GmbH, Germany

10:50 – 11:05 **Quantitative Radiological Characterization of Waste: Integration of Gamma Spectrometry and Passive/Active Neutron Assay**
Dr. Filippo Gagliardi I Nucleco S.p.A., Italy

Best Paper Award

D/E This session can be held in German with simultaneous English translation.

Decommissioning of Nuclear Installations

11:15 – 11:30 Dismantling of High-Activity Effluents Tanks Inside Buildings 105 and 122 of the Site of Belgoprocess at Dessel in Belgium
Jean-Pierre Lahaye I Tractebel Engineering, Belgium
Antoine Van Elewyck I Tractebel Engineering, Belgium

11:30 – 12:00 Typical Activities at JRC-ITU Hot Cells in Preparation for Storage or Decommissioning of High Activity Facilities
Dr. Paul David Bottomley I European Commission, Germany

12:00 – 12:15 Effects of Waste Classification Changes in Russian Legislation on Planned Waste Treatment Center
Dr. Frank Scheuermann I NUKEM Technologies Engineering Services GmbH, Germany

12:15 – 12:30 Entstehung, Behandlung und Entsorgung von radioaktiven Abwässern während des Rückbaus im Kernkraftwerk Stade
Michael Klein I E.ON Kernkraft GmbH, Kernkraftwerk Stade, Germany

12:30 – 12:45 Erfahrungen aus dem Rückbau Kernkraftwerk Obrigheim
Jörg Klasen I EnBW Kernkraft GmbH, Germany

D/E This session can be held in German with simultaneous English translation.

Programme Committee

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INFORUM Verlags- und Verwaltungsgesellschaft mbH

KTG Kerntechnische Gesellschaft e.V.

LIESE Special purpose machinery ■ Systems engineering

KROHNE

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Siempelkamp Nukleartechnik

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NRG

SÚJB Státní úřad pro jadernou bezpečnost

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Registration Counter

Opening hours

Monday	9 May 2016	15:00 – 18:00
Tuesday	10 May 2016	08:00 – 18:00
Wednesday	11 May 2016	08:00 – 17:00
Thursday	12 May 2016	08:00 – 12:00

Exhibition

Opening hours

Tuesday	10 May 2016	09:00 – 23:00
Social Evening		19:00 – 23:00
Wednesday	11 May 2016	09:00 – 18:00
Thursday	12 May 2016	09:00 – 13:00

Media Check

Opening hours

Monday	9 May 2016	15:00 – 18:00
Tuesday	10 May 2016	07:00 – 20:00
Wednesday	11 May 2016	07:00 – 18:00
Thursday	12 May 2016	07:00 – 12:00

Catering

A buffet lunch will be served in the exhibition area on Tuesday and Wednesday for all participants.

Coffee Breaks will also be provided in the exhibition area.

Breaks

Tuesday, 10 May 2016
10:15 – 10:30 Coffee Break
12:00 – 13:00 Lunch
14:40 – 15:00 Coffee Break
16:20 – 16:40 Break
19:00 – 23:00 Social Evening

Wednesday, 11 May 2016
10:00 – 10:30 Coffee Break
12:00 – 13:00 Lunch Break
15:00 – 15:30 Coffee Break

Thursday, 12 May 2016
10:00 – 10:30 Coffee Break

Further Information

Date
10 – 12 May 2016

Venue
CCH – Congress Center Hamburg
Am Dammtor / Marseiller Straße
20355 Hamburg, Germany

Information
- **www.nucleartech-meeting.com**

Conference and Exhibition Office
CPO HANSER SERVICE
Hanser & Co GmbH
Office Hamburg
Zum Ehrenhain 34
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- **amnt2016@cpo-hanser.de**

Host
DAtF
KTG
INFORUM Verlags- und Verwaltungsgesellschaft mbH
(Organiser)
Robert-Koch-Platz 4
10115 Berlin, Germany
- **amnt@inforum-gmbh.de**
- **www.kernenergie.de**

The International Expert Conference on Nuclear Technology

48th Jahrestagung Kerntechnik
Annual Meeting on Nuclear Technology

16 – 17 May 2017 | Estrel Convention Center Berlin Germany

Key Topics

- Outstanding Know-How & Sustainable Innovations
- Enhanced Safety & Operation Excellence
- Decommissioning Experience & Waste Management Solutions

Save the Date

16–17 May 2017

Estrel Convention Center Berlin

Germany

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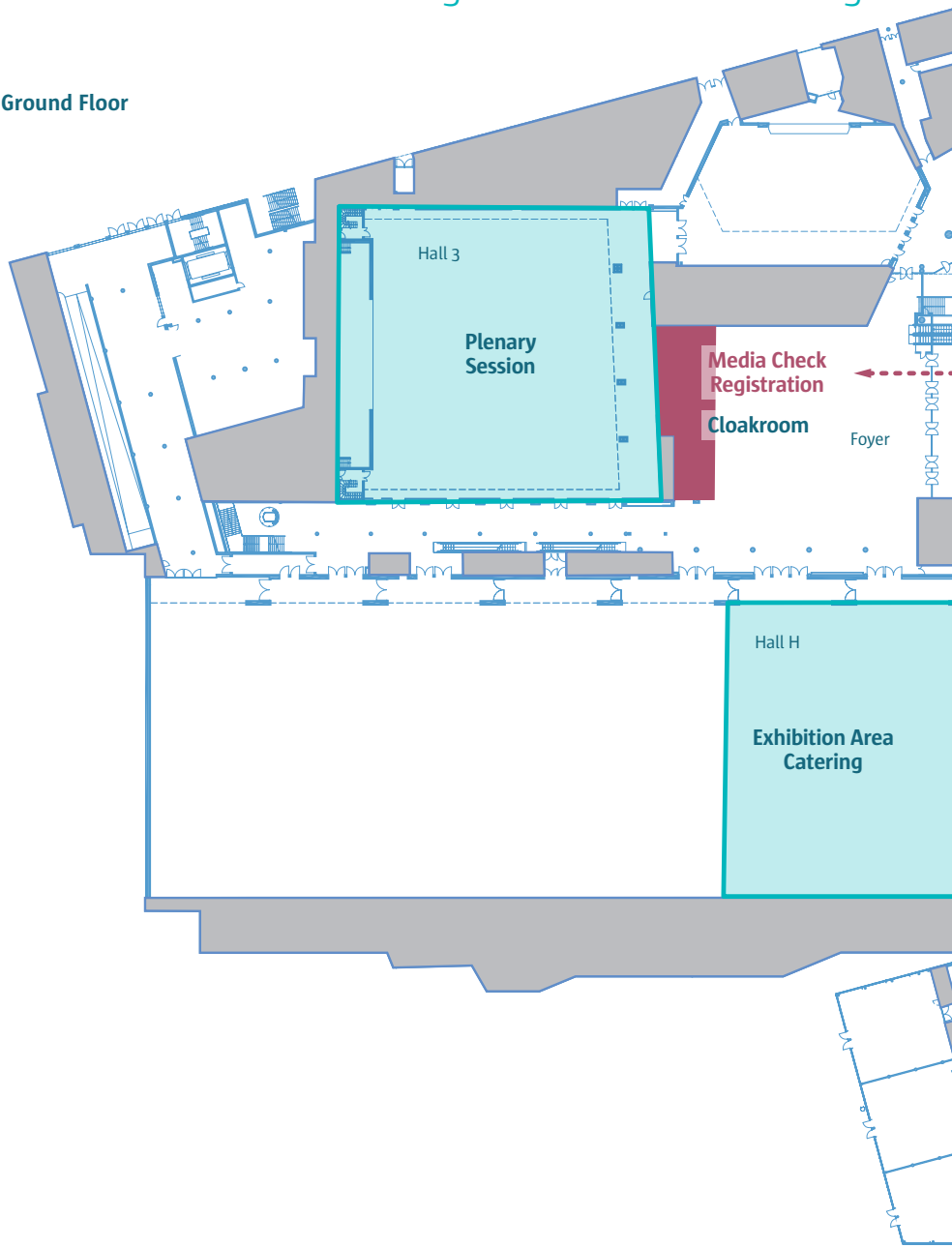
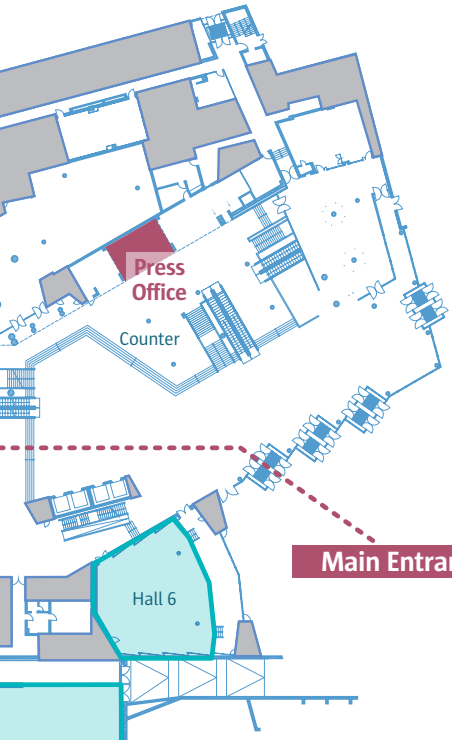
DAtF KTG

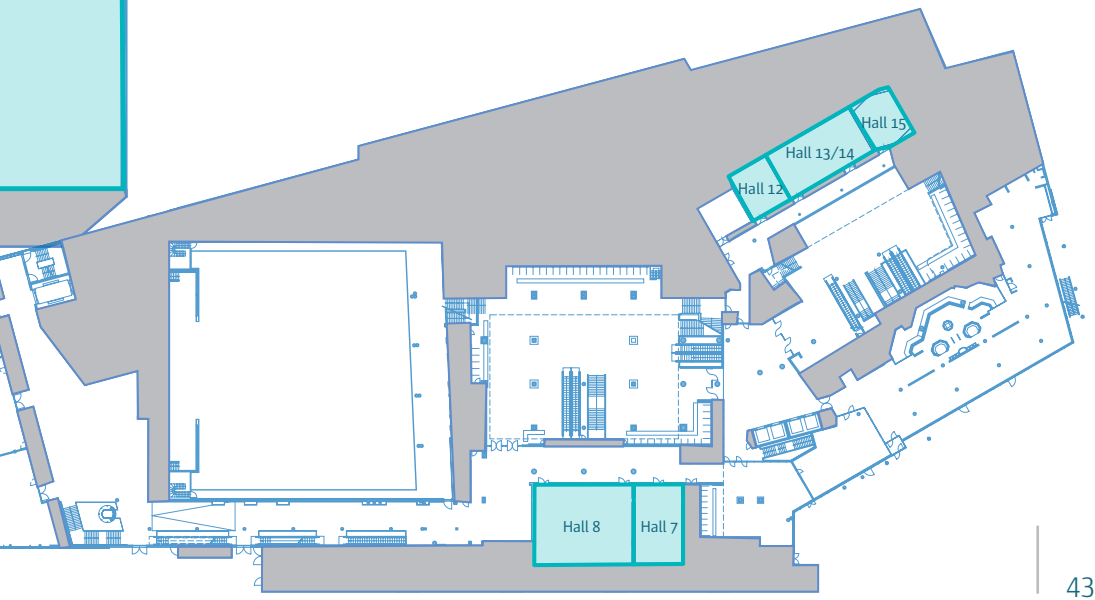
Floor Plan ı CCH – Congress Center Hamburg

Ground Floor



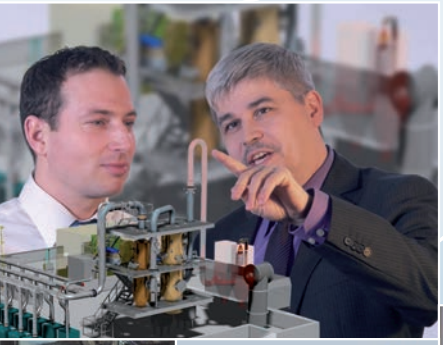

Press
Office
Counter
Main Entrance
Hall 6

First Floor


Hall 15
Hall 13/14
Hall 12
Hall 8
Hall 7

Nuclear Specialists

Engineering Design Technology



Our global, fifty years of experiences means we can reliably, efficiently:

- Solve complex radioactive waste challenges
- Provide spent fuel handling and storage solutions
- Deliver decommissioning innovation and efficiency
- Develop bespoke monitoring systems

Innovation Solutions Excellence

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