



E U R O S A F E  
FORUM FOR NUCLEAR SAFETY

GRS

IRSN

*Towards Convergence of  
Technical Nuclear Safety Practices in Europe*

B R U S S E L S  
7 & 8 N O V E M B E R 2 0 0 5

**Safety Improvements**  
Reasons • Strategies • Implementation





The EUROSAFE Forum is part of the EUROSAFE approach, which consists of two further elements: the EUROSAFE Tribune and the EUROSAFE Website. The general aim of EUROSAFE is to contribute to fostering the convergence of technical nuclear safety practices in a broad European context. This is done by providing technical safety and research organisations, safety authorities, power utilities, the rest of the industry and non-governmental organisations mainly from the European Union and East-European countries, and international organisations with a platform for the presentation of recent analyses and R&D in the field of nuclear safety, to share experiences, to exchange technical and scientific opinions, and to conduct debates on key issues in the fields of nuclear safety and radiation protection.

The EUROSAFE Forum 2005 focuses on “Safety Improvements – Reasons • Strategies • Implementation” from the point of view of the authorities, TSOs and industry and presents the latest work in nuclear installation safety and research, waste management, radiation safety as well as nuclear material and nuclear facilities security carried out by GRS, IRSN, AVN and their partners in the European Union, Switzerland and Eastern Europe.

A high level of nuclear safety is a priority for the countries of Europe. The technical safety organisations play an important role in contributing to that objective through appropriate approaches to major safety issues as part of their assessments and research activities.

The challenges to nuclear safety are international. Changes in underlying technologies such as instrumentation and control, the impact of electricity market deregulation, demands for improved safety and safety management, the ageing of nuclear facilities, waste management, maintaining and improving scientific and technical knowledge, and the need for greater transparency - these are all issues where the value of an international approach is gaining increasing recognition.

The enlarged European Union of 25 countries, of which 13 use nuclear energy, will require closer collaboration between technical safety organisations and even more convergence in European nuclear safety practices. EUROSAFE aims to respond to these needs.

## Safety

### Improvements

- Reasons
- Strategies
- Implementation

## Programme Committee:

Benoît De Boeck, *AVN*  
Jean-Bernard Chérié, *IRSN*  
Ulrich Erven, *GRS*  
Peter Storey, *HSE*  
José I. Villadóniga Tallón, *CSN*  
Christer Viktorsson, *SKI*  
Seppo Vuori, *VTT*

## Technical Plenary Presentations

The plenary presentations and the discussion within the panel and with the audience will be chaired by **Jean-Pierre Contzen**, Former Director General of the JRC of the European Commission, Professor at the Instituto Técnico of Lisbon

### 14:00 Welcome

Welcome by the Directors of AVN, GRS, IRSN  
**Jean-Jacques Van Binnebeek**, *AVN Director General*  
**Lothar Hahn**, *GRS Technical and Scientific Director*  
**Jacques Repussard**, *IRSN Director General*

## Safety Improvements – Reasons • Strategies • Implementation

### 14:30 Safety improvements – objectives and methods

**Pieter De Gelder**, *Head of Studies, Research and Development at AVN*  
**Martial Jorel**, *Head of Reactor Safety Division at IRSN*  
**Heinz Liemersdorf**, *Head of Reactor Safety Analyses Division at GRS*

### 15:00 NPP safety improvements – licensees' motivation and concerns

**Ingvar Berglund**, *Head of Safety and Environment at Forsmark NPP, Sweden*

### 15:30 Implementation of safety improvements – the role of the authority

**Iván Lux**, *Nuclear Safety Directorate Deputy Director General at HAEA, Hungary*

### 16:00 Break

### 16:30 Panel Discussion

Perception of safety improvements by the general public

**Anne-Marie Lizin**, *Mayor of the City of Huy, Belgium*  
**Jozef Misak**, *Director for Strategy at NRI-Rež, Czechia*  
**Jean-Paul Samain**, *Director General of the Federal Agency for Nuclear Control, Belgium*  
**Johann Seidl**, *Head of Public Relations at Isar NPP, E.on, Germany*  
**Seppo Vuori**, *Chief Research Scientist at VTT, Finland*

### 17:45 Guest Lecture

**Andris Piebalgs**, *Energy Commissioner, European Commission*

### 18:30 Reception

### 20:00 Dinner

## Seminar 1

### Nuclear Installation Safety - Assessment and Analysis

#### Chairpersons:

T. Foult, *IRSN*  
H. Liemersdorf, *GRS*

Five seminars, that are open to all, will be held in order to provide excellent opportunities for comparing experiences and learning about recent activities of IRSN, GRS, AVN and their partners in the European Union and Eastern Europe.

**9:00** AVN's experience as TSO in safety assessments of steam-generator-replacement and power-uprate projects

*M. Vincke, D. Gryffroy, N. Hollasky, G. Roussel (AVN)*

**9:30** The technico-economic optimization of the improvement of the safety level of the PWR 900 MWe units for their third ten-yearly outage thanks to the cost - benefit analysis

*A. Dubreuil-Chambardel (EDF/SEPTEN, France),  
J.-P. Roux (EDF/DPN, France),  
N. Gimet-Meca (EDF/CIPN, France)*

**10:00** Break

**10:30** Safety improvements gained by taking into account Fluid Structure Interaction when calculating loads due to the propagation of pressure waves in pipe systems

*J. Perlia (TÜV-Süd, Germany)*

**11:00** Support of the Russian Nuclear Safety Authority (Rostekhnadzor) in developing the regulatory basis for dealing with ex-weapons plutonium

*J.-P. Carreton (IRSN), N. Hollasky (AVN), B. Gmal (GRS),  
A. Petry (RISKAUDIT)*  
with collaboration of:

*S. Pilate (EC), B. Sicard (CEA, France),  
J.-Y. Ravachol (DGSNR, France)*

**11:30** Assessment of safety-critical software

*J. Gassino, J.-C. Peron, P. Régnier, B. Soubies (IRSN)*

**12:00** Lunch Break

**13:30** Generic issues on sump clogging

*W. Pointner, E. Kersting, B. Pütter (GRS)*

**14:00** European Utility Requirements: levelling the European electricity producers' playing ground for new NPPs

*L. Vanhoenacker (Tractebel Engineering, Belgium),  
P. Berbey (EDF/SEPTEN, France)*

# Seminars

**14:30** Periodic Safety Review: modifications resulting from the second ten-yearly outages of the French 1300 MWe PWRs

*I. Miramon (IRSN)*

**15:00** Break

**15:30** Key issues in safety assessment of digital I&C upgrades in Eastern-type NPPs

*A. Lindner, G. Schnürer (ISTec, Germany),  
M. A. Yastrebenetsky (SSTC, Ukraine)*

**16:00** Safety evaluation of the Finnish EPR project

*J. Hyvärinen, P. Tiippana (STUK, Finland)*

**16:30** End of Seminar 1

## Seminar 2

### Nuclear Installation Safety - Research

#### Chairpersons:

*M. De Franco, IRSN  
V. Teschendorff, GRS*

**9:00** Assessment and development of Molten Corium Concrete Interaction models for the integral code ASTEC

*C. Spengler, H.-J. Allelein (GRS),  
M. Cranga, F. Duval, J.-P. Van Dorsseleere (IRSN)*

**9:30** Iodine chemistry in hydrogen recombiners

*J.-C. Sabroux, F. Deschamps (IRSN)*

**10:00** Break

**10:30** Investigation of gas mixing and stratification in the PANDA facility

*J. Dreier (PSI, Switzerland)*

**11:00** Status and development of nuclear design and accident simulation methods

*A. Seubert, S. Langenbuch, W. Zwermann (GRS)*

**11:30** Validation of coupled thermal-hydraulic and neutronic codes in international co-operation

*K. Ivanov (PSU, USA), E. Sartori (NEA, France),  
E. Royer (CEA, France), S. Langenbuch, K. Velkov (GRS)*

**12:00** Lunch Break

**13:30** Validation of thermal-hydraulic codes for boron dilution events in the context of the OECD/ SETH project

*A. Bucalossi (AVN)*

**14:00** ECCS sump clogging and recirculation issue: chemical effects programme

*J.-M. Mattei, Y. Armand (IRSN),*

*A. Klementova, M. Liska (Trencin University, Slovakia),*

*I. Vicena, J. Batalik, B. Soltesz, V. Gubco (VUEZ, Slovakia)*

**14:30** Benchmarking of structural reliability models for risk analyses of piping

*B. Brickstad (SKI, Sweden), T. Schimpfke (GRS)*

**15:00** Break

**15:30** German-Russian analysis simulator for WWER-1000/W-320

*A. Shukavin et al. (VNIIAES-GET, Russia),*

*J. Steinborn, W. Richter (GRS)*

**16:00** An approach to knowledge management for EUROSAFE projects

*F. Goldschmidt (IRSN), P. De Gelder (AVN), D. Beraha (GRS)*

**16:30** End of Seminar 2

## Seminar 3

### Environment and Radiation Protection

#### Chairpersons:

*A. Oudiz, IRSN  
G. Pretzsch, GRS*

**9:00** Crisis management: respective roles of radiological consequences calculations and of radioactivity measurements in the environment

*A. Oudiz, B. Dufer, P. Dubiau, J.-P. Maigné (IRSN)*

**9:30** Experiments to quantify airborne release from packages with dispersible radioactive materials under accident conditions

*R. Martens, F. Lange (GRS),*

*W. Koch, O. Nolte (FhG - ITEM, Germany)*

**10:00** Break

# Seminars

**10:30** Decision-aiding tool for the first counter-measures to be implemented in the intermediate phase

*N. Réalès, B. Cessac, E. Quentric, F. Gallay, P. Dubiau (IRSN)*

**11:00** Radiological consequence analysis in case of fire impact

*W. Brücher, M. Sogalla (GRS)*

**11:30** Radiation field calculation in the vicinity of Russian radioisotope generator sources

*G. Pretzsch, K. Hummelsheim, P. Bogorinski (GRS)*

**12:00 Lunch Break**

**13:30** CORE Health project: production and use of environmental radioactivity measurements data and internal contamination data for the health status follow-up of children in Belarus

*C. Luccioni (IRSN), J.-C. Autret, M. Josset (ACRO, France), M. Brugière, M. Costa, C. Georgescault (Médecins du Monde, France)*

**14:00** Analysis of isotope inventory and dose of post-irradiation samples of the TAKAHAMA-3 reactor with KENOREST

*R. Kilger, U. Hesse, H.-J. Fett (GRS)*

**14:30** Requirements on official electronic dosimetry systems - a concept for the use of official electronic personal dosimeters in Germany

*W. Pfeffer, J. Kaulard (GRS)*

**15:00 Break**

**15:30** Involvement of the population in the radiological monitoring of their environment

*J.-C. Autret, M. Josset (ACRO, France)*

**16:00** Preparing the heads of the local French agriculture administration for the management of radioactive contamination in rural territories

*A. Dassonville (CGGREF, France)*

**16:30 End of Seminar 3**

## Seminar 4

### Nuclear Material and Nuclear Facilities Security

#### Chairpersons:

W. Gutschmidt, *GRS*  
J. Joly, *IRSN*

**9:00** Security culture

*J. Jalouneix, D. Winter (IRSN)*

**9:30** The Spanish security system

*E. Gil López (CSN, Spain)*

**10:00** Break

**10:30** Exercises in the field of security

*J. Aurelle, A. Nannini (IRSN)*

**11:00** Defense in depth used in the physical protection of NPPs

*W. Gutschmidt (GRS)*

**11:30** The ENSRA organisation

*E. Gil López (CSN, Spain)*

**End of Seminar 4**

**12:00** Lunch Break

## Seminar 5

### Waste Management

#### Chairpersons:

W. Brewitz, *GRS*  
M. Jorda, *IRSN*

Posters and computer demonstrations will be available for consultations throughout the Forum

**13:30** The safety case for deep geological disposal: GRS views on regulatory requirements and practice

*B. Baltes, K. Röhlrig (GRS)*

**14:00** Present state of the art in the development of a geological radioactive waste repository in Ukraine

*V. Shestopalov, Y. Rudenko (NAS, Ukraine), W. Brewitz (GRS)*

**14:30** Underground waste disposal safety research: development and application of analytical tools and methodologies for the safety case

*W. Brewitz, D. Buhmann, J. Mönig (GRS)*

**15:00** Break

**15:30** Activities of AVN in the Belgian context of safety assessment of radioactive waste disposal

*O. Smidts, V. Nys, P. De Gelder (AVN)*

**16:00** Geological disposal of radioactive waste: elements of a safety approach

*G. Bruno (IRSN), P. De Preter (ONDRAF/NIRAS, Belgium), A. Grevoz (ANDRA, France), J. Maudoux (AFCN/FANC, Belgium), V. Nys (AVN), P. Raimbault (DGSNR, France)*

**16:30** End of Seminar 5

# Useful Information

## Venue

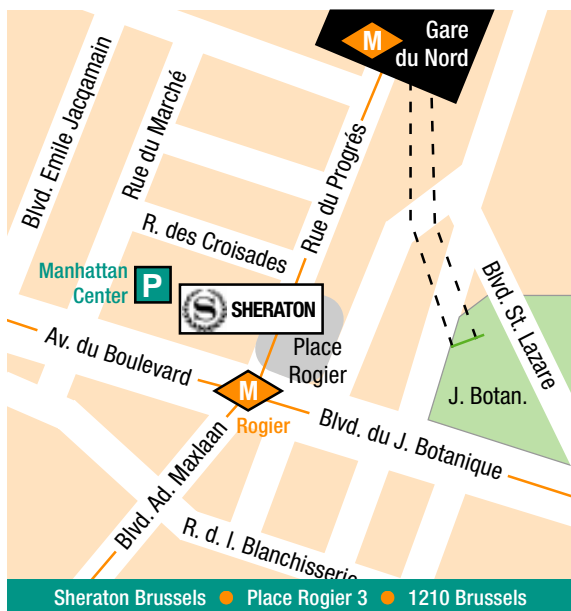
### Sheraton Brussels Hotel & Towers

Place Rogier 3  
1210 Brussels, Belgium  
Phone: +32 (0)2 224 31 11  
Fax: +32 (0)2 224 34 56  
[www.sheraton.com/brussels](http://www.sheraton.com/brussels)

## Location

The Sheraton Brussels Hotel is situated in the City Centre right next to the **Gare du Nord**. The Gare du Nord can easily be reached from the Gare Midi by public transport (**Metro line 2 - direction Simonis, exit Rogier**). **Brussels International Airport**: Take Airport City Express, Exit Nord.

The Forum secretariat can be contacted on both Forum days by phone  
+32 (0)2 224 31 11  
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## Registration and fee

Please send us your binding registration on the attached reply card by **14 October 2005**.

The registration fee is **€ 500** (net = € 431.03 + 16 % VAT = € 68,97). Please transfer the registration fee by 14 October 2005 to the account of GRS at Dresdner Bank AG Köln, SWIFT-BIC: DRES DE FF 370, IBAN DE 84 3708 0040 0367 3030 00. The VAT Ident number is DE 122792708. Please note that invoices will only be sent on special request. Should you require an invoice, please make a corresponding note at your registration. The registration fee covers dinner, lunch, and the conference documents.

A confirmation will be sent to you as soon as your registration has been received. Cancellation after 14 October 2005 cannot be refunded.

# Useful Information

## Hotel reservation

At the **Sheraton Brussels** conference venue (see above for address), rooms have been reserved for conference participants at the special rate of € 160.

In addition, rooms at a rate of € 170 have been reserved at the directly adjacent

### **Crowne Plaza**

Rue Gineste 3

1210 Brussels, Belgium

Phone: +32 (0)2 203 62 00

Fax: +32 (0)2 203 55 55

[www.crowneplazabrussels.be](http://www.crowneplazabrussels.be)

Please arrange your own hotel accommodation by **26 September 2005**, referring in each case to the EUROSAFE Conference when booking your room. After this date, the rooms will no longer be available at the special rates.


! To facilitate your reservation you may use one of the prepared booking forms attached.

## Forum documents

Badges for participants and conference documents will be available on the day from the conference office.

## Forum languages


The language of the conference on both days will be English. On the first day, simultaneous interpreting into Russian will be provided.



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