



Towards
convergence
of technical safety
practices
in Europe

EUROSAFE is an international forum for discussions among experts from technical safety organisations, research institutes, safety authorities, utilities, the industry, public authorities and non-governmental organisations concerning the status of and recent achievements in nuclear installation safety, waste management, radiation safety and nuclear material security.

The third edition of the forum focuses on discussing the management of nuclear risks and the latest work carried out by GRS,IPSN and their partners from the European Union and Eastern Europe.

Nuclear energy contributes approximately one third of European electricity production. A high level of nuclear safety is a priority for the countries of Europe and 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.

The challenges to nuclear safety are increasingly international. Changes in underlying technologies such as instrumentation and control, the impact of electricity market deregulation, demands for improved safety, 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 development of the European Union and its future enlargement will also require closer collaboration between technical safety organisations and even more convergence in European nuclear safety practices. EUROSAFE aims to respond to these needs by offering a European forum for information on and discussion of important nuclear safety issues.

**Programme
Committee:**

Benoît DeBoeck, *AVN*
Peter Storey, *HSE*
Christer Viktorsson, *SKI*
José I. Villadóniga Tallón, *CSN*
Jean-Bernard Chérié, *IPSN*
Anselm Schaefer, *GRS*

14:30
Round tables

Contributors

Jean-Paul Samain, *FANC*
Klaus Köberlein, *GRS*
Leif Johansson, *Vattenfall*
Raymond Sené, *GISEN*
Leonid A. Bolshov, *IBRAE*

17:00

Contributors

Dana Drabova, *SÚJB*
André Oudiz, *IPSN*
Roger Coates, *BNFL*
Mycle Schneider, *WISE*
Vicente Serradell,
University of Valencia

The round table debates and discussions with the audience will be chaired by journalist Marie-Dominique Montel.

19:00

20:00

Welcome

Michel Livolant, *IPSN Director*
Adolf Birkhofer, *GRS Director*

Management of nuclear risks

• **Review of approaches**
Ortwin Renn, *University of Stuttgart*

• **Management of accident risks**

The first round table will deal with the technical, organisational and societal aspects of risk management aimed at the prevention of accidents in nuclear power plants. Among the questions to be discussed are:

- What are the relevant elements of current practices?
- What are the most significant challenges?
- How should we deal with those challenges?
- Are there new or changed needs for research?
- Is the public understanding sufficient and how could it possibly be improved?

Break

• **Management of radiological risks relating to human health and the environment**

The second round table will focus on radiological risks from the normal operation of nuclear installations. Special consideration will be given to the involvement of stakeholders. Among the questions to be discussed are:

- Which radiation risks from normal operation are relevant?
- What can be expected from comparing the methods for assessment and management of radiation risks with those of risks related to chemical pollutants?
- Do we need more research in view of improving the assessment of radiation risks?
- What benefits can be expected from the participation of stakeholders in the risk management process?
- How can this involvement be organized?

Final remarks

Michel Livolant, *IPSN Director*
Adolf Birkhofer, *GRS Director*

Reception

Dinner

Address
André-Claude Lacoste, *DSIN Director*
Wolfgang Renneberg, *Director General, BMU*

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 IPSN, GRS and their partners in the European Union and Eastern Europe.

Seminar 1

NUCLEAR INSTALLATION SAFETY

Assessment and analysis

9:00

The role of research in a regulatory context
(*J. Frescura*)

9:30

Safety assessments relating to the use of new fuels in research reactors: application to the case of FRM II reactor fuel
(*H. Abou Yehia, G.Bars, P. Tran Dai*)

10:00 *Break*

10:30

Operational characteristics for the efficiency of safety management
(*K. Kotthoff, A. Vandewalle*)

11:00

Safety significance of components ageing, exemplary for MOV, based on French and German operating experience
(*O. Morlent, F. Michel*)

11:30

TSO assistance towards the improvement of nuclear safety in Lithuania: achievements and perspectives
(*Ph.Butcher, P.Bystedt, M. Chouha, J.P. Weber, V. Shevaldin, E.Uspuras, K.Zilyls*)

12:00 *Lunch break*

13:30

German-Ukrainian collaboration in the assessment of digital I&C systems for safety applications in NPPs
(*M. Yastrebenetsky, B. Mulka, S. Vinogradskaia, D. Wach*)

14:00

Generic result and conclusion of reevaluating the flooding protection in German and French NPPs
(*J. M.Mattei, H.Liemersdorf*)

14:30

Limitations of the inspection and testing concepts for pressurised components from the viewpoint of operating experience
(*H.Schulz*)

15:00 *Break*

15:30

Anti-seismic tie rod anomaly of reactor vessel heads
(*R. Chevarier*)

16:00

Frequencies and trends of significant characteristics of reported incidents in Germany
(*G. Farber*)

16:30 *End of Seminar 1*

Seminar 2

NUCLEAR INSTALLATION SAFETY

Research

9:00

An IPSN research programme to resolve pending LOCA issues
(*A.Mailliat, C. Grandjean, B. Clément*)

9:30

Analytical and experimental research into boron dilution events
(*V. Teschendorff, K.Umminger, F.-P. Weiß*)

10:00 *Break*

10:30

3-D core modelling of a reactivity-induced transient: the TMI1 benchmark
(*P. Ferraresi, E.Studer, A. Avvakumov, V. Malofeev, D.diamond et B. Bromley*)

11:00

Time-dependent neutron transport model and its coupling to thermal-hydraulics
(*A. Pautz*)

11:30

The VVER severe accident management
(*V. Asmolov*)

12:00 *Lunch break*

13:30

ASTEC participation in the international standard problem
KAEVER
(*P. Spitz, J.-P. Van Dorsselaere, B. Schwinges, S. Schwarz*)

14:00

Application of pyrolysis models in COCOSYS
(*W. Klein-Heßling, M. Röwekamp, H.-J. Allelein*)

14:30

ARTIST: a co-operative safety research project to study
experimentally fission product retention in steam generators
with ruptured tubes
(*A. Dehbi, S. Güntay, D. Suckow*)

15:00 Break**15:30**

Synergies between research and assessment with respect to
fire events
(*R. Gonzalez, R. Bertrand, M. Blot, J. Lacoue, J.-M. Mattei*)

16:00

Qualification of non-destructive examination methods on
critical components
(*J. Zdarek*)

16:30 End of Seminar 2**Seminar 3****WASTE
MANAGEMENT****9:00**

Development of safety standards for the geological disposal of
radioactive waste
(*Ph. Metcalf*)

9:30

Development of site selection criteria for radioactive waste
disposal in view of favourable geological settings in Germany
(*B. Baltes, W. Brewitz*)

10:00 Break**10:30**

Characterization of discontinuities in an argillaceous medium
(Tournemire site): key questions related to the safety
assessment of radioactive waste disposal
(*J. Cabrera Nuñez*)

11:00

Importance of microstructures for the evaluation of argillaceous
host rocks
(*R. Nüesch, J. Y. Boisson*)

11:30

Corrosion of cementitious materials under geological disposal
conditions with resulting effects on the geochemical stability of
clay minerals
(*H.J. Herbert, Th. Meyer*)

12:00 Lunch break**13:30**

Reactive transport modelling of interaction processes between
claystone and cement
(*L. Dewindt, D. Pellegrini, J. van der Lee*)

14:00

Self-healing of excavation-disturbed rocks in the nearfield of
underground cavities - exemplary measurements in rock salt
and interpretation of preliminary results
(*K. Wiczorek, P. Schwarzieneck, T. Rothfuchs*)

14:30

Spatio-temporal evolution of fault networks: implications for
deep radioactive waste disposal sites
(*K. Hardacre, O. Scotti*)

15:00 Break**15:30**

Modelling of colloid-facilitated actinide transport in the
geosphere with the computer code TRAPIC
(*U. Noseck*)

16:00

The Chernobyl Pilot Site: radionuclide scattering from a waste
burial site into the geosphere
(*D. Bugaï, V. Kashparov, L. Dewière*)

16:30 End of Seminar 3

Seminar 4

ENVIRONMENT
AND RADIATION
PROTECTION

9:00

Assessment of the efficiency of short-term countermeasures (sheltering, iodine, evacuation) following a severe accident in a PWR
(*F. Charpin, H.Mansoux, J. Brenot*)

9:30

Radiological criteria and methods for the remediation of contaminated former mining sites
(*H. Biesold, H.Thielen, D. Weiss*)

10:00 *Break*

10:30

Management of radioactive contaminated industrial sites with involvement of stakeholders
(*A.Oudz, B. Cessac, J. Brenot, J.P. Maigné*)

11:00

Stakeholder involvement in the management of rural areas after an accident
(*A.Nisbet*)

11:30

New approach to the assessment and reduction of health risks and environmental impacts originating from TENORM according to EC requirements
(*A. Poffijn, W.D. Kraus*)

12:00 *End of Seminar 4*

Seminar 5

NUCLEAR
MATERIAL
SECURITY

13:30

The convention on the physical protection of nuclear material, viewpoint of the "Group of Six"
(*Belgium / Ministry of Foreign Affairs ; France / Ministry of Industry, IPSN ; Germany / BMU, GRS ; Spain / Ministry of Economy, CSN ; Sweden / SKI ; United Kingdom / DTI, OCNS*)

14:00

Crisis exercise in case of stolen nuclear material
(*S. Taconnet, J. L. Portugal*)

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

14:30

Protection of nuclear material and nuclear installations against malevolent actions by third parties
(*J. Aurelle*)

15:00 *Break*

15:30

Main results of 10 years of co-operation with NIS in the field of the physical protection of nuclear material and nuclear facilities
(*P. Salewski*)

16:00

Insights from the periodic reviews of the physical protection of NPPs designed to earlier standards
(*A.Hagemann*)

16:30 *End of Seminar 5*

On November 5, round tables will be simultaneously translated into French, German, English and Russian.

On November 6, seminars will be held only in English.