

2008 ISOE EUROPEAN SYMPOSIUM

on Occupational Exposure Management
at Nuclear Facilities



Organised by



Supported by



TURKU, Finland

25 - 27 June 2008



Ten years after the first ISOE Symposium organised in Europe (Malmö, Sweden, 1998), the International Atomic Energy Agency (IAEA), the OECD Nuclear Energy Agency (NEA) and the ISOE European Technical Centre (CEPN) are jointly organising and sponsoring the 2008 ISOE European Symposium on Occupational Exposure Management in Nuclear Facilities. This Symposium, to be held in Turku (Finland) from 25-27 June 2008, will also benefit from the support of the two Finnish nuclear operators - TVO and FORTUM - as well as the Finnish Radiation and Nuclear Safety Authority - STUK.

This Symposium is targeted at radiation protection professionals from all types of nuclear power plants, research reactors, contractors and radiation protection authorities. It will provide a large forum for participants to exchange operational experience and discuss the various aspects of occupational exposure management and radiation protection, from the design stage of installations to their decommissioning, including operation and maintenance. The oral and poster presentations will cover regulatory, organisational and technical aspects of radiation protection, without forgetting human factors and safety culture.

The accompanying Technical Exhibition will give participants the opportunity to see the latest developments from industrial and commercial companies active in all fields of radiation protection.

Prior to the Symposium, on 24 June 2008, two meetings devoted to specific Radiation Protection audiences have been organised:

- a radiation protection managers meeting
- a senior regulatory body representatives meeting

Since the first ISOE European Symposium, significant improvements have been made in protecting workers from ionising radiations. It is still important to continue exchanges of operational experience and to move forward with the adoption of a continuous progress approach. In this context, this new meeting point of radiation protection professionals under the heading of ISOE will be a great opportunity to share, at the European level, experiences and practices favouring the management of occupational exposures and the optimisation of radiation protection.

I look forward to welcoming you in Turku,

Caroline SCHIEBER
Head of ISOE-ETC

PROGRAMME COMMITTEE MEMBERS

ABELA Gonzague	<i>EDF DIN DQSNR – France</i>
D’ASCENZO Lucie	<i>ISOE European Technical Centre, CEPN – France</i>
BUJTAS Tibor	<i>Paks NPP – Hungary</i>
DEBOODT Pascal	<i>IAEA – Austria</i>
DOBIS Lubomir	<i>Bohunice NPP – Slovak Republic</i>
GUZMAN LOPEZ-OCÓN Olvido	<i>CSN – Spain</i>
HENTTINEN Jukka	<i>TVO NPP – Finland</i>
JAHN Swen Gunnar	<i>HSK – Switzerland</i>
KAPTEINAT Heinz Peter	<i>VGB PowerTech e.V – Germany</i>
KOC Josef	<i>Temelin NPP – Czech Republic</i>
KONTIO Timo	<i>Loviisa NPP – Finland</i>
KUKKONEN Kari	<i>TVO NPP – Finland</i>
MUNDIGL Stefan	<i>European Commission – Luxembourg</i>
PETIT Philippe	<i>Tihange NPP – Belgium</i>
RENN Guy	<i>Sizewell B NPP – United Kingdom</i>
RITTER Andreas	<i>Leibstadt NPP – Switzerland</i>
RIIHILUOMA Veli	<i>STUK – Finland</i>
ROSELL HERRERA Borja	<i>Almaraz NPP – Spain</i>
SCHIEBER Caroline	<i>ISOE European Technical Centre, CEPN – France</i>
SVEDBERG Torgny	<i>Ringhals NPP – Sweden</i>

CONFERENCE LANGUAGE

The conference language will be English.

TUESDAY 24TH JUNE 2008

DEDICATED MEETINGS

Two dedicated meetings devoted to specific audience are organised at Mauno Koivisto Centre in Turku Science Park, BioCity Building:

09:00-17:00

Radiation Protection Managers Meeting

Lecture Hall

*Contact-persons: G. Renn – Sizewell BNPP, guy.renn@british-energy.com
G. Abela – EDF, gonzague.abela@edf.fr*

09:00-17:00

Senior Regulatory Body Representatives Meeting

Meeting rooms 1-2

*Contact-persons: V. Riihiluoma – STUK, veli.riihiluoma@stuk.fi
O. Guzman – CSN, ogj@csn.es*

Attendance to these meetings is restricted to the targeted audience and free of costs. Registration to one meeting should be done by contacting directly the relevant contact-person.

14:00-18:00

Installation of posters and setting up of commercial exhibition booths

WEDNESDAY 25TH JUNE 2008

2008 ISOE EUROPEAN SYMPOSIUM PROGRAMME

08:00 Registration of participants and exhibition opening

08:30 **Conference opening**

(STUK, TVO, FORTUM, CEPN)

09:00-10:30 **Session 1: Future Challenges in Radiation Protection**

Chairman: Veli RIIHILUOMA (STUK, Finland)

Co-chairman: Guy RENN (Sizewell B NPP, United Kingdom)

- Progress with the Revision and Consolidation of the European Basic Safety Standards Directive
V. Tanner, S. Mundigl (European Commission)
- The IAEA BSS Revision Process: Background and Status
P. Deboodt, R. Czarwinski (IAEA)
- RP2020: A Vision for Radiation Safety at U.S. Nuclear Power Plants in the 21st Century
R. Andersen (NEI), S. Bushart (EPRI), J. Place (INPO) – USA
- Radiation Protection by Design – the EPR
P. Jolivet (AREVA NP SAS – France), I. Terry (AREVA NP GmbH – Germany)
- EPR the Radiation Protection Stakes
T. Vignan, S. Marques, Y. Beneteau (EDF CNEN – France)
- EPRI Advanced Nuclear Plant Design Recommendations for Radiation Protection/ALARA
D. Hussey, K. Kim (EPRI – USA)

10:30-11:00 Coffee-break

11:00-11:15 **Questions from Session 1**

11:15-12:30 **Session 2: Human Factors and Safety Culture**

Chairman: Yves GARCIER (EDF, France)

Co-chairman: Borja ROSELL HERRERA (Almaraz NPP, Spain)

- How to Motivate Young Workers to be trained as Radiation Protection Professionals?
S.G. Jahn (HSK – Switzerland)
- Education and Training of Radiation Protection Officers in Sweden
V. Nilsson (Forsmark NPP – Sweden)

WEDNESDAY 25TH JUNE 2008

2008 ISOE EUROPEAN SYMPOSIUM PROGRAMME

- Human Factors, Safety Culture, Implementation in Radiation Protection Management and in Radiation Protection Training
J. Bote Moreno (Almaraz NPP – Spain)
- Factors Contributing to the Reduction of Occupational Exposures at Dukovany NPP
K. Petrova (SONS), L. Urbancik (SONS), V. Kulich (Dukovany NPP), D. Fuchsova (SONS) – Czech Republic
- Taking into account Human and Organizational Aspects of the Remote Monitoring System in Radiation Protection
I. Fucks, S. Guyot (EDF R&D – France)

12:30-14:00 Lunch

14:00-14:15 Questions from Session 2

14:15-15:30 Session 3: Source-Term Management

Chairman: Wataru MIZUMACHI (JNES, Japan)

Co-chairman: Andreas RITTER (Leibstadt NPP, Switzerland)

- Developments in the EPRI Radiation Source Term Reduction Program
D. Hussey (EPRI – USA)
- Review of the Evolution of International Collective Radiation Exposure and Associated Good Practices, with Special Focus on Source Term Reduction Strategies for EDF PWRs
L. Guinard (EDF SEPTEN), F. Cattant (EDF R&D), S. Taunier (EDF CEIDRE), J.L. Bretelle (EDF UNIE), A. Rocher (EDF UNIE), B. Jeannin (EDF DPN) – France
- A Study on Loviisa NPP (VVER-440) Dose Rate Measurement's Ability to Detect Small Primary to Secondary Coolant Leaks
A. Ketolainen (Fortum Nuclear Services Ltd – Finland)
- EDF Program for Cleaning of PWR High Dosimetric NPP
P.A. Munoz, B. Nohl (EDF CIDEN – France)

15:15-15:45 Coffee-break

15:45-16:00 Questions from Session 3

16:00-17:30

Session 4: Decommissioning and Contamination Management

Chairman: Carl-Goran LINDVALL (Barsebäck NPP, Sweden)

Co-chairman: Heinz Peter KAPTEINAT (VGB, Germany)

- ALARA in the Dismantling of Nuclear Facilities
A. Rodriguez (ENRESA – Spain)
- Transport of the Activated Core Plate without Shielding
T. van Appeldorn, H. Sander (Würgassen NPP – Germany)
- Full System Decontamination at the Obrigheim NPP
W. Kukla (Obrigheim NPP), C. Topf (AREVA NP GmbH) – Germany
- Full System Decontamination for decommissioning: Experiences at NPP Barsebäck Units 1 and 2 applying the AREVA NP GmbH HP CORD® UV / AMDA® Technology
A. Basu (AREVA NP GmbH – Germany), C.G. Lindvall (Barsebäck NPP – Sweden), T. Aberg (Barsebäck NPP – Sweden), T. Tingfors (Barsebäck NPP – Sweden), C. Topf (AREVA NP GmbH – Germany), M. Mattson (Oskarshamn NPP – Sweden)
- Decontamination Practices at Dukovany and Temelin NPPs in the Czech Republic
J. Koc (Temelin NPP), J. Vokálek (Temelin NPP), M. Fárniková (Temelin NPP), L. Urbancik (State Office for Nuclear Safety), R. Trtílek (ALLDECO.CZ, a.s.) – Czech Republic
- Experience of a Site which has just Introduced RCA Access in Street Clothes (EVEREST Programme)
J.L. Faure (Golfech NPP – France)

17:30-17:45

Questions from Session 4

20:00

Congress Dinner at Turku Castle
sponsored by Fortum (Loviisa NPP)

08:00 Registration of participants & exhibition opening

08:30 ISOE Website demonstration

09:00-10:15 **Session 5: ALARA and Radiation Protection Management**

Chairman: Pascal DEBOODT (IAEA)

Co-chairman: Swen Gunnar JAHN (HSK, Switzerland)

- Synthesis of Benchmarking Visits on the Organisation and Practical Implementation of Radiation Protection in Nuclear Power Plants
F. Drouet (CEPN), G. Cordier (EDF DPN), P. Croûail (CEPN), B. Jeannin (EDF DPN), C. Lefauve (CEPN), L. Vaillant (CEPN) – France
- Moving Beyond Time, Distance and Shielding: Developing the Concept of Organizational ALARA
K. Ohr (Quad Cities NPP – USA)
- ALARA Implementation at Cernavoda NPP
V. Simionov (Cernavoda NPP – Romania)
- Application of the ALARA Principle at the Tihange NPP
P. Petit (Tihange NPP – Belgium)
- Almaraz NPP: Past, Present and Future
B. Rosell Herrera (Almaraz NPP – Spain)

10:15-10:45 Coffee-break

10:45-11:00 **Questions from Session 5**

11:00-12:15 **Session 6: Job specific Radiation Protection Experiences**

Chairman: Peter HOFVANDER (SSI, Sweden)

Co-chairman: Torgny SVEDBERG (Ringhals NPP, Sweden)

- Unexpected Radiological Exposure during Removal of the Lower Vessel Internals at Ascó 2 NPP
F.J. González Tardiu (Asco NPP – Spain)
- Cofrentes Undervessel Project in RFO16
R. Fragío (Cofrentes NPP – Spain)
- Possible Radiation Doses during Gamma Scanning of Spent Fuel Rods
H. Nurmesniemi, T. Hörnfeldt (Oskarshamn NPP – Sweden)

THURSDAY 26TH JUNE 2008

2008 ISOE EUROPEAN SYMPOSIUM PROGRAMME

- Radiation Protection Aspects of NDT-Services in Finnish Nuclear Power Plants
J. Sovijarvi (Polartest Oy – Finland)
- How to be Sure that Nobody Enters in a Very High Dose Rate Area?
C. Moulin (Chooz NPP – France)

12:15-13:45 Lunch

13:45-14:00 Questions from Session 6

14:00-15:15 **Session 7: Radiation Protection Measurements**

Chairman: Wolfgang PFEFFER (GRS, Germany)

Co-chairman: Gonzague ABELA (EDF, France)

- Reconstruction of the Radiation Monitoring System at the Paks NPP
T. Bujtás (Paks NPP – Hungary)
- Individual Neutron Dosimetry at EDF
E. Grudé (EDF UNIE), Y. Guibbaud (EDF UNIE), J. Fazileabasse (EDF R&D), H. Onillon (EDF R&D) – France
- Electronic Dosemeters for Monitoring Neutron Personal Dose in Radiation Fields in a Nuclear Power Plant
P. Jung (Philippsburg NPP – Germany)
- Official Personal Monitoring for German Nuclear Power Plants using Electronic Dosemetry Systems
S. Hübner, W. Wahl (GSF – Germany)
- The Introduction of Electronic Personal Dosimeters as Legal Dosimetric means at Nuclear Power Plants in the Czech Republic
M. Fárniková, J. Koc, J. Vokálek (Temelin NPP – Czech Republic)

15:15-15:45 coffee-break

15:45-16:00 Questions from Session 7

16:00-17:00 **Session 8: Conclusions**

Chairman: Caroline SCHIEBER (CEPN – ISOE European Technical Centre)

Co-chairman: Brian AHIER (NEA)

- Reporting from Senior Regulatory Body Representatives Meeting
- Reporting from Radiation Protection Managers Meeting
- Conclusions

OPTIONAL VISITS ORGANISED BY TVO

Visits of **Construction site of Olkiluoto 3 (EPR)**, **VLJ Repository** (repository for low and intermediate level radioactive waste) and **ONKALO** (the underground research facility being built for rock characterisation for the final disposal of spent nuclear fuel).

The number of participants is limited to 100.

Buses will pick up registered participants in Turku at the Market Place, along the street Yliopistonkatu.

The programme is the following:

- 8:30** Departure from Turku
- 10:00** Arrival in Olkiluoto
- 11:00** TVO presentation including VLJ Repository and ONKALO presentations
- 11:30** OL3 (= EPR) presentation
- 12:00** Lunch on Visitor Centre
- 13:00** Bus tour: ONKALO, OL3, VLJ Repository
- 15:00** Leaving to Turku or to the airport

GENERAL INFORMATION

ISOE SYMPOSIUM VENUE

**Mauno Koivisto Centre
Turku Science Park**
BioCity Building - Tykistökatu 6 A - 20520 TURKU
Phone: +358 2 4101 630

Turku city centre is at a distance of 1.5 kilometres. The trip from the airport is ca. 15 minutes.

All the trains from Helsinki to Turku stop at Kupittaa station, 200 metres away from Mauno Koivisto Centre. From Turku centre, local busses 32, 42 and 110, stop near BioCity building.

REGISTRATION FEES

The registration fees for the ISOE Symposium are 400€. This includes CD-ROM Proceedings, Lunch, Congress Diner (see registration form).

POSTERS (Last Call)

A Poster exhibition will take place simultaneously with the Symposium conference. It remains possible to propose your contribution until the 1st of May 2008 by sending an abstract and/or a full paper to the following Email address:

dascenzo@cepn.asso.fr

EXHIBITION BOOTHS

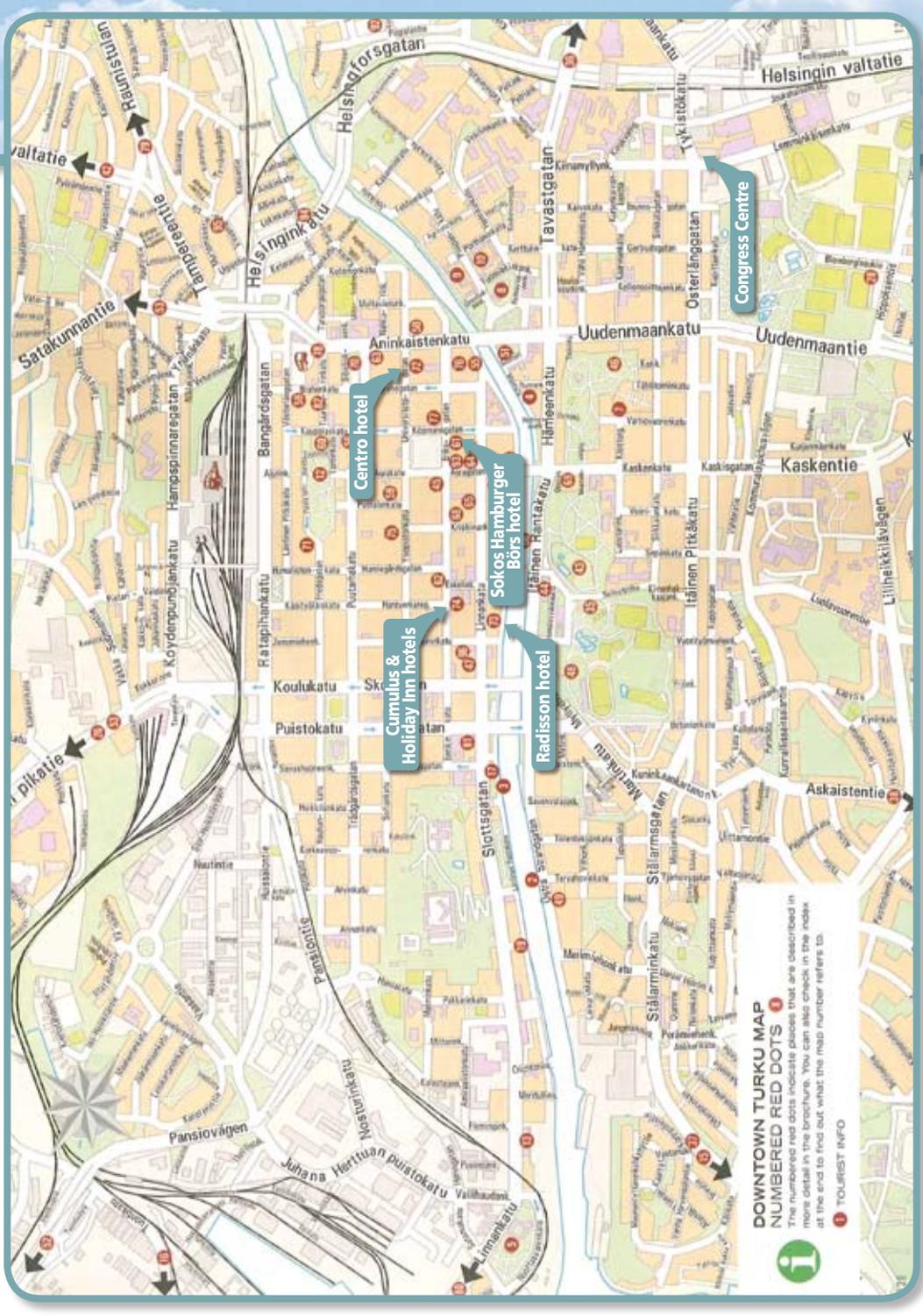
A technical exhibition will take place simultaneously with the Symposium conference. Coffee-breaks will be held in the exhibition area. Some exhibition spaces are still available and registrations are accepted until the 16th of May 2008.

Moreover companies have the opportunity to sponsor and advertise in this meeting. Please contact the Technical Secretariat for detailed information.

INFORMATION

Technical Secretariat:

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Centro hotel

Sokos Hamburger
Börs hotel

Cumulus &
Holiday Inn hotels

Radisson hotel

Congress Centre

DOWNTOWN TURKU MAP
NUMBERED RED DOTS

The numbered red dots indicate places that are described in more detail in the brochure. You can also check in the index at the end to find out what the map number refers to.

i TOURIST INFO



GENERAL INFORMATION

TRAVELLING TO TURKU

Turku has an international airport with regular flights from Scandinavia. Other routes from all over the world are available via Helsinki Airport as well as Copenhagen and Stockholm airports.

Silja and Viking ferries depart from Stockholm in the morning and evening, passing through an astounding archipelago en route to Turku. Trains from Helsinki take approx. two hours. There are frequent hydrofoil and ferry departures across the Gulf of Finland, departing Tallinn.

ACCOMMODATION

The organisers negotiated a reduced price and reserved rooms from different types of hotels in Turku city centre listed below. All hotels are located downtown within 2 kilometres from Mauno Koivisto Centre.

The allotments are valid until 24th of April 2008. Booking of the hotel rooms is done on «first come - first served» basis. Participants make their own reservations and settle the bill themselves. Please quote the allotment code ISOE when making a booking.

Please book the hotel rooms as soon as possible. It's high season.

Rates are per night and per room (*breakfast and VAT included*).

- **SOKOS HOTEL HAMBURGER BÖRS**
standard single 99 € - standard twin 109 €
Email: sales.turku@sokoshotels.fi or by Phone: +358 2 337 3800
- **CENTRO HOTEL**
standard single 70 € - superior single 82 €
Email: centro@centrohotel.com or by Phone: +358 2 211 8100
- **CUMULUS HOTEL**
standard single 94 € - business class single 104 € - superior class single 114 €
Email: turku.cumulus@restel.fi or by Phone: +358 2 338 2666
- **HOLIDAY INN HOTEL**
standard single 105 € - standard twin 125 € - executive class single 130 €
Email: turku.holidayinn@restel.fi or by Phone: +358 2 338 211
- **RADISSON SAS MARINA PALACE HOTEL**
standard single 91 € - standard twin 111 €
Email: info.turku@radissonsas.com or by Phone: +358 20 1234 710



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