

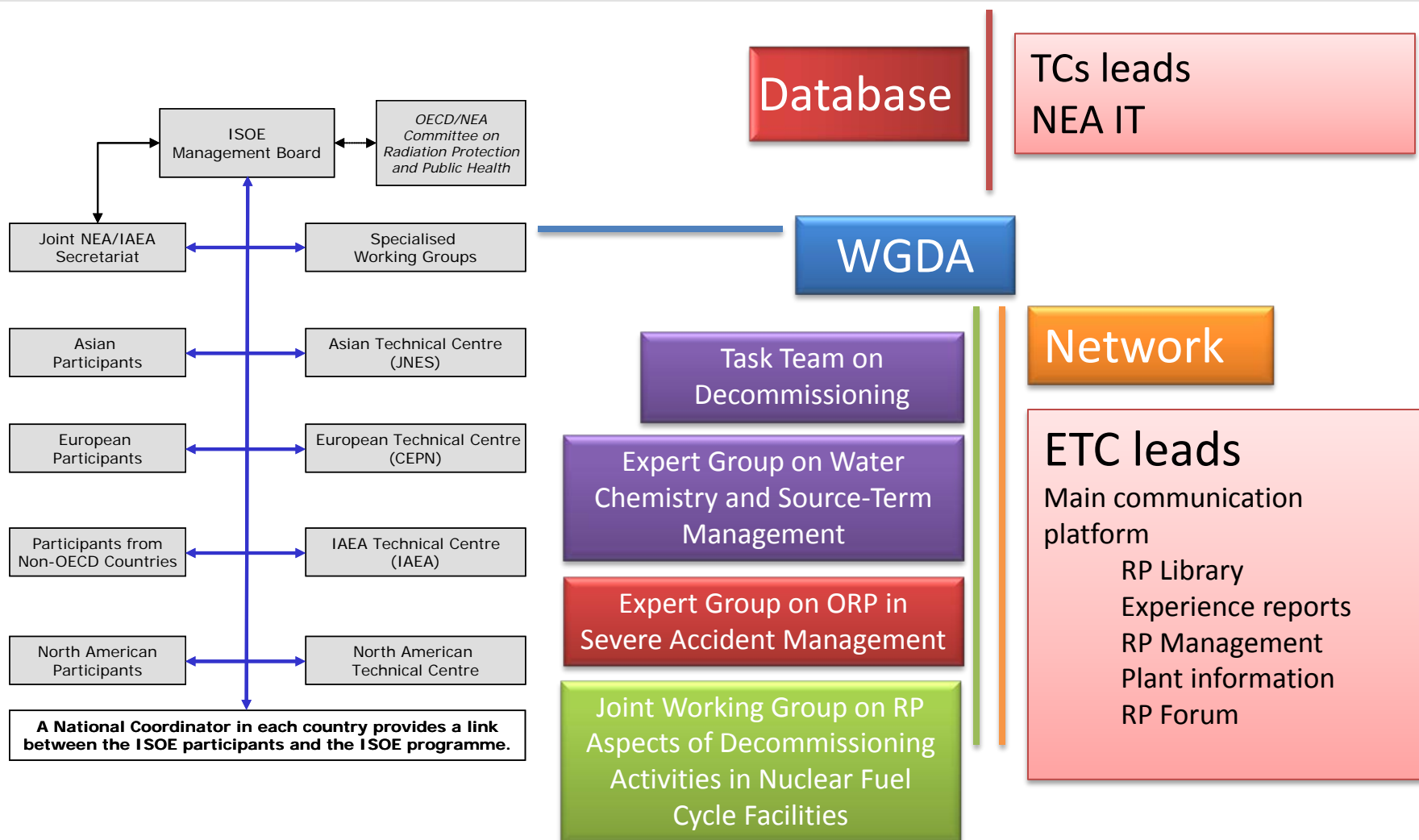
# Information System on Occupational Exposure

## Expert Group Report: Occupational Radiation Protection in Severe Accident Management



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Radiation Protection & Radioactive  
Waste Management Division



- Each group has specific mandate
- Product oriented
- Time limited

## EG-SAM Background

- **April 2011:** ISOE Bureau launched early response to the Fukushima NPP accident, including;
  - management of high radiation area worker doses from previous nuclear power plant accidents, and
  - effective use of personal protective equipment and high-radiation area worker dosimetry for different types of emergency and high-radiation work situations.
- **May 2011:** ISOE Management Board established the Expert Group on Occupational Radiation Protection in Severe Accident Management

## Objectives of EG-SAM

- Contribute to occupational exposure management by providing a view on management of high radiation area worker doses;
- Develop a state-of-the-art ISOE report on best radiation protection management practices for proper radiation protection job coverage during severe accident initial response and recovery phase; and
- Identify RP lessons learned from previous reactor accidents

## Progress

- Group composition: 45 delegates from 19 ISOE countries
- 5 in-person meetings 2011-2013 (+2 informal meetings & videoconference meetings)
- November 2012 MB meeting:
  - develop an interim (preliminary) report before the end of 2013 (with a general perspective and discussion of specific severe accident management worker dose issues), and to finalize the report by organizing an international workshop in 2014 to address national experiences, which will be incorporated to the report.
- Approval of interim report , November 2013
- E-report , available at ISOE Network and NEA ISOE web-sites

<http://www.oecd-neo.org/rp/docs/2013/crp-ph-r2013-7.pdf>

<http://www.iso-network.net/index.php/management-mainmenu-87/eg-sam.html>

## Interim Report Topics

- **RP Management and Organisation**

Emergency Response Plans, Command Facilities, Response Organisation, Decision making and Prerequisites for On-site Radiation Protection Decisions

- **RP Training and Exercises related to Severe Accident Management**

Preparedness program activities, development of training instructions, Types, Qualification, RP aspects for SAM, and Management of the Administrative Aspects

- **Facility Configuration and Readiness**

Design features, Portable ER requirement and supplies

- **Overall Approach for Worker Protection**

Reference levels, Protective measures, Planning, Permits and Execution and Control, Exposure control, non-radiological health aspects and health surveillance

- **Monitoring and Managing the Radioactive Releases and Contamination**

Radiological releases (gaseous, liquid), on-site and off-site contamination monitoring, management of contamination

- **Key Lessons Learned from Past Accidents**

TMI, Chernobyl and Fukushima

## Interim Conclusions

- As for all emergency situations, extensive emergency response plans are essential for protecting the public and emergency workers/responders.
- Specialized radiation protection training and exercises related to severe accident management are imperative for emergency workers/responders.
- Effective implementation of a radiation protection programme during a severe accident may be significantly impacted by facility configuration and controls.
- Individual worker protection, including the establishment of individual exposure reference levels, extensive work controls, and thorough radiological exposure controls, are necessary to maintain emergency responder radiation exposures ALARA.
- During the emergency and post-accident mitigation phases, radioactive and contaminated materials released internally and externally from the affected facility require extensive radiological controls to avoid or minimize radiation exposures to emergency workers/responders and the public.
- There are always lessons to be learned from accidents such as Chernobyl and Fukushima.

# Workshop

**Upcoming**

International Workshop on

Occupational Radiation Protection in Severe Accident Management

**Sharing Practices and Experiences**

**17-18 June 2014**

**Washington, DC, USA**

**Co-sponsored by**

OECD Nuclear Energy Agency

International Atomic Energy Agency

**Hosted by**

Nuclear Energy Institute

**Venue:** 1201 F Street, N.W.  
Suite 1100  
Washington, DC USA



## Workshop Objectives & Format

Share practices and experiences in approaches to severe accident management:

- provide an international forum for information and experience exchange;
- identify best occupational radiation protection approaches in strategies, practices, as well as limitations for developing effective management;
- identify national experiences to be incorporated to the final version of ISOE EG-SAM report.

### Format

- Series of plenary presentations providing overview of international practices and experiences in severe accident management and
- Breakout sessions discussing common themes and issues for possible inputs into the report.

## Target Audience & Outcomes

The workshop is limited to 80 persons and cross-section of radiation protection professionals from nuclear utilities and national regulatory authorities such as:

- Nuclear Electricity Utilities
- Radiation Protection and Emergency Management Authorities
- Technical Support Organisations
- International Organisations

### Outcomes

Following the workshop, the proceedings (presentations, discussion summaries and conclusions) and final version of the EG-SAM report will be prepared and made available to participants and other interested parties.

## Registration & Deadlines

- No registration fee
- Pre-registration is required; deadline for registration is **30 May 2014**.
- Final program: **28 April 2014**

### Workshop web-page

<http://www.oecd-nea.org/jointproj/isoe/workshop/>

- Information on accommodation and optional activities

### Registration

<http://www.oecd-nea.org/confdb/confdb/conf?id=142>

## New initiative

- Proposal for the establishment of a new **Joint ISOE/CPD Working Group on Radiological Protection Aspects of Decommissioning Activities in Nuclear Fuel Cycle Facilities**
- International Co-operative Programme on Decommissioning (CPD)

### JWG-RPD

#### Background

- Drivers: Decommissioning of nuclear facilities is an increasing area of work and interest for the NEA.
- Need for a network of RP experts in order to discuss RP relevant activities of decommissioning projects.
- Network could be structured as a joint project of the ISOE and the CPD.

## JWG

- Primarily focus on practical case studies and expert discussions that would help to identify good practices in the field of ORP
- Benchmarking will be a tool
- Not only limited with NPPs
- On going decommissioning projects in fuel cycle facilities
- Structure a database for NPP decommissioning works (ISOE experience)

### **Working environment**

- 2day meeting/year (organized by the NEA)
- If feasible, hosted at a site concerned by decommissioning activities

## **JWG- Objectives**

- Provide a forum for experts to discuss the current state of knowledge, technology, and experience in radiological protection issues directly related to the decommissioning of nuclear reactors / fuel cycle facilities
- Regularly reporting to the Management Boards of the ISOE and the CPD

## JWG – Future directions

- Collecting information and practical experience available in the nuclear industry on addressing operational aspects of radiation protection during decommissioning of nuclear fuel cycle facilities with special emphasis on **procedures to manage occupational exposures**, and;
- Identifying factors and aspects which play key roles in achieving **good RP practices in decommissioning** (knowledge, experience, technology, regulatory requirements and guidance, worker involvement, information exchange and networking, etc.) and analysing and quantifying, as possible, their **impact on worker doses and operational costs**.

## Joint Topical Session

Overview of the ISOE November 2014 Meetings  
3 - 6 November 2014 – Paris / France

	3 November	4 November	5 November	6 November
Morning	WGDA	WGDA	<b>ISOE CPD Joint Topical Session on Decommissioning</b>	<b>24<sup>th</sup> meeting of ISOE Management Board</b>
Afternoon	WGDA	Extended Bureau	<b>24<sup>th</sup> meeting of ISOE Management Board</b>	<b>24<sup>th</sup> meeting of ISOE Management Board</b>
			PCC meeting	Extended Bureau



## **Purposes of the Joint Topical Session**

- To introduce the joint projects with their specific activities in the field of decommissioning,
- To discuss the proposal for the establishment of a new Joint Working Group, and
- to discuss trends, areas that need to be studied further by the joint working group.

09:00	Opening of the Joint Topical Session	Co-Chairs: Willie O. HARRIS (ISOE), Ivo TRIPPUTI (CPD)
Session 1: Overview of the Joint Projects (focus on decommissioning related activities)		
09:10	NEA IN DECOMMISSIONING / INTERNATIONAL PERSPECTIVE, NEED FOR A TASK FORCE	Mr Michael SIEMANN (NEA, RPRWM Division)
09:20	INTRODUCTION OF PROPOSAL ON THE ESTABLISHMENT OF A NEW JOINT ISOE/CPD WORKING GROUP ON RADIOLOGICAL PROTECTION ASPECTS OF DECOMMISSIONING ACTIVITIES IN NUCLEAR FACILITIES	Mr Ivo TRIPPUTI (CPD, SOGIN/Italy)
09:30	OVERVIEW OF THE ISOE PROGRAM, ACTIVITIES IN THE FIELD OF DECOMMISSIONING, ISOE DATABASE FEATURES FOR DECOMMISSIONING RELATED DATA AND ISOE D QUESTIONNAIRE	Mr Willie HARRIS (ISOE, Exelon Nuclear /US)
10:00	OVERVIEW OF THE CPD PROGRAM	Mr Ivo TRIPPUTI (CPD, SOGIN/Italy) OR Mr Robert WALTHERY (TAG Chair, Belgoprocess/Belgium)
10:30	Break	
11:00	ISOE BENCHMARKING ACTIVITIES (FUEL CYCLE FACILITIES), BROADENING ISOE DATABASE, FUTURE PERSPECTIVES	Mr Ludovic VAILLANT (ISOE ETC, CEPN/France)
Session 2: Discussion		
11:30	<p>This session will summarize the presentations and attempt to identify any trends, aspects, areas that need to be studied further by JWG-RPD:</p> <ul style="list-style-type: none"> <li>Joint Rapporteur Group's Summary</li> <li>Possible topics for future work for the JWG-RPD</li> </ul>	Joint Rapporteur Group Halil Burçin OKYAR (ISOE) TBD (CPD)
12:30	Closing of the Joint Topical Session	Co-Chairs

Thank you for  
your time

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More information @

<http://www.oecd-nea.org/jointproj/isoe.html>  
<http://www.isoe-network.net>