

Occupational Radiation Protection in Severe Accident Management



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Based partially on a presentation by Ms.
Ellen Anderson to ISOE MB, November
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11-15 January 2015
Ft. Lauderdale, Florida

NEA Expert Group Activities

- Expert Group on Occupational Radiation Protection in Severe Accident Management (EG-SAM)
 - Established in May 2011 after Fukushima Accident in Japan
 - 45 Members from 19 ISOE Countries
 - Contribute to occupational exposure management by providing a published view on managing worker doses in high radiation areas;
 - Develop a state-of-the-art ISOE report on best radiation protection management practices for job coverage during severe accident initial response and recovery phases; and
 - Identify RP lessons learned from previous reactor accidents
 - Interim Report Completed November 2013; Further Regulator and Utility Comments then Sought

International Workshop – June 2014 in Washington








**International ISOE
WORKSHOP**

**OCCUPATIONAL RADIATION
PROTECTION IN SEVERE
ACCIDENT MANAGEMENT**

Sharing Practices & Experiences

**17-18 June 2014
Washington DC, USA**

**FIRST ANNOUNCEMENT
REGISTRATION**


 Organised by the Information System on
Occupational Exposure
Co-sponsored by
the OECD NEA and the IAEA
Hosted by Nuclear Energy Institute
 

- Participants from 17 countries
- Plenary and break-out sessions were organized to capture global (*ICRP, IAEA*), utility (*TEPCO, Electrabel, EDF, Exelon*) and regulatory authority (*CNSC, ASN, USNRC, KINS, STUK*) perspectives.
- The workshop provided suggestions for improvement and some additional points to extend the view of the interim report.

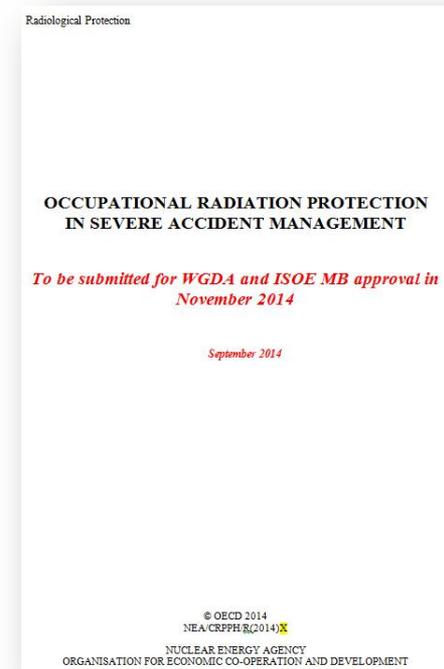
EG-SAM Report Topics

- RP Management and Organization
- RP Training and Exercises Related to Severe Accident Management
- Facility Configuration and Readiness
- Overall Approach for Worker Protection
- Monitoring and Managing the Radioactive Releases and Contamination
- Key Lessons Learned from Past Accidents (*annex addressing the TMI, Chernobyl and Fukushima NPP accidents*)

EG-SAM Report Status

The ISOE Management Board members approved the EG-SAM report, “Occupational Radiation Protection in Severe Accident Management” in November 2014

- The Expert Group was then disbanded
- An e-report has been published by NEA



Need For Continuing Evaluation re ORP in SAM

- Report is current as of mid-2014
- Continuing evaluation of the Fukushima accident implications is on-going by regulators and utilities
- Continuing evaluation re managing ORP in accident situations remains on-going
- Integration of efforts across departments needs continuing priority for effective accident prevention and mitigation
- Conclusion: prudent to establish a group to provide on-going input concerning ORP in accident management

Initial Considerations re ORP

- Focus on practical guidance
- Further evaluate personnel dosimetry needs regards spectroscopy
- Define need for additional training of RP, Nuclear Engineering, and Operations on implications of plant design basis for accident prevention and mitigation
 - TMI: instrumentation, human error
 - Chernobyl: human error
 - Fukushima: non-conservatism of design and response plan
 - Staff may do well given the situation, but planning is better than reacting

Volunteers?

- Utility-based ORP group is being established
- Team members are being recruited, and will include some members of the original North American Severe Accident Working Group (organized in 2012)
- Terry Brown, CHP, PMP, SRO, Perry Station has agreed to Chair the ORP Group; Rick LaBurn, CHP, Fermi 2 is expected to be one team member
- Professor Narabayashi, Hokkaido University, is coordinating with the North American working group
- If you are interested, please see Dr. Miller