



ISOE NEWS

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ISOE Asian, European, North American and IAEA Technical Centres

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Memorial for Mr Mizumachi

The ISOE programme would like to convey its deepest condolence on the death of Mr Wataru Mizumachi, who passed away on October 29th, 2013. He was a valued colleague who devoted himself to ISOE, which is jointly operated by the OECD Nuclear Energy Agency and the International Atomic Energy Agency.

Mr Mizumachi participated in the ISOE programme for the first time in 2003. From the beginning, he showed great enthusiasm for ISOE, and worked tirelessly to advance the sharing of experience in order to reduce worker doses at nuclear power plants around the world. His frank presentation of relevant situations and his sense of humour and use of colourful poetic images were key aspects of his very likable personality. He was the ISOE Chair from 2006 to 2008, Chair of Expert Group on Work Management between 2007 and 2009, and was assigned as the Chair of Expert Group on Occupational Radiation Protection in Severe Accident Management in 2011. His guidance and experience have helped the ISOE programme to become the largest database and experience exchange platform for nuclear power plant occupational exposure management in the world.

Our sadness is shared by all the members of the ISOE programme. A memorial ceremony was organised at the opening of 23th Annual Session of the ISOE Management Board.



ISOE International ALARA Symposium

The 2013 ISOE International ALARA Symposium, organized by the Asian Technical Centre, was held 27-28 August 2013 in Tokyo / Japan, and attended by an audience of about fifty participants from OECD/NEA, IAEA and eleven countries including Brazil, China, France, Germany, Republic of Korea, Pakistan, Russia, Spain, Sweden, USA and Japan.

Mr Wataru Mizumachi (ATC) provided the plenary address on countermeasure for severe accident in some countries' NPP reflecting lessons learned from the Fukushima accident. Dr David W. Miller (NATC) provided lessons learned from the response to the TMI accident and recovery of the accident. Mr Furukawa (Tokyo Electric Power Company) made a presentation entitled "Mid-to-long Term Policy for on-site Decontamination and the performance", in which he introduced the present situation of the Fukushima Daiichi NPP site, the current decontamination activities and mid- and long-term decontamination plan. Moreover, Mr Frazier Bronson (CANBERRA Industries), who was involved in the response to the Fukushima accident from immediately after the accident, provided his experience in the presentation entitled "Radiation Measurement Experiences and Lessons to be learned in Response to the Fukushima NPP Accident."



International Symposium participants (August 2013)

Distinguished paper was titled Cook Critical RP Survey Program, presented by Mr. Robert Hite, Cook Nuclear Plant Radiation Protection Manager (American Electric Power). He mentioned the importance of systematic approach to radiation protection program information capture and indicated that the concept is to;

- Identify certain surveys as “critical”,
- Schedule the performance of the surveys with logic,
- Ensure surveys are completed the same shift, and
- Enhance the level and timeliness of supervisory oversight over their conduct and timely review and approval.

The requirements of the critical survey were summarized as follows;

- Designated prior to performance to allow time for planning and discussion.
- Includes a pre job brief from RP supervisor to technician performing survey to include documentation (template), survey instruments and radiations to be measured.
- Survey to be completed by technician who has done survey before or briefed by technician or supervisor who has done it.
- Should be reviewed by supervision before work starts.
- Should be documented by technician by end of shift.

In connection with the symposium, the participants had the opportunity to participate a technical visit in Fukushima Dai-ichi NPP. They were asked to wear protective clothing and half-face mask. Below photos show participants inside the bus provided by TEPCO, the transmission line tower that collapsed, large-size storage tanks and damage to the auxiliaries.



Fukushima site visit (August 2013)

ISOE Management Board Meeting in November 2013

The 23rd annual meeting of the Information System on Occupational Exposure (ISOE) Management Board, held on 20-21 November 2013 in Paris, was attended by participants from nuclear electricity utilities and national regulatory authorities from fourteen countries.

The Management Board reviewed the 2013 achievements and programme for 2014. Key outcomes included approvals to:

- removal of restrictions for regulatory authority users of the ISOE database (became effective on 26 November 2013),
- new MADRAS analysis of the database,
- consolidated report on the ISOE Technical Centres performance indicators,
- two expert group's (including EGWC and interim EG-SAM reports),
- organisation of an International Workshop on Occupational Radiation Protection in Severe Accident Management in the US, and
- Organisation of regional symposia in the US, Switzerland and Republic of Korea.

In connection with the current ISOE Terms and Conditions, new Chair-elect and Vice-Chair were elected. The Management Board has agreed to initiate a procedure to establish a new joint working group in the field of decommissioning with the International Co-operative Programme on Decommissioning (CPD). Both ISOE and CPD are joint undertakings of the NEA. In addition, Mr Borut Breznik (Slovenia) and Mr Carl Göran Lindvall (Sweden) were assigned as the ISOE News' Editorial Board members.

ISOE Expert Groups Reports

On 20th – 21st November 2013, the ISOE Management Board approved two expert group's reports. The report on "Radiation Protection Aspects of Primary Water Chemistry and Source-term Management" reflects the current state of knowledge, technology and experience. With the approval of the report, the expert group was disbanded by the Management Board. The interim report on "Occupational Radiation Protection in Severe Accident Management and Post-accident Recovery", which will be finalized during an International ISOE Workshop in June 2014, is to identify best occupational radiation protection approaches in strategies and practices. Limitations for developing effective management and national experiences for strategies of Severe Accident Management are to be incorporated into the final version of the report. Both documents will be published and made available for downloads through the ISOE Network web-site early next year.

NATC January Symposium

2014 North American ISOE ALARA Symposium will focus on ALARA lessons learned in the management of worker doses during refueling outages for PWR, BWR & CANDU plants at the 13-15, January 2014 symposium in Ft. Lauderdale, FL USA. There is strong competition this year for the 2013 NATC World Class ALARA Performance Award. Farley, Braidwood and Beaver Valley have submitted comprehensive applications for being selected as the winner of this prestigious award in January. Over 30 vendors have registered to demonstrate their technology at the ALARA Symposium Exhibition Hall.

US NRC Region III & IV RPM meeting with regulators is planned for 16-17 January 2014 at Ft. Lauderdale, FL. There is no cost for attending this open forum for discussion of good practices and ALARA lessons learned as manager plan their 2014 ALARA station dose goals and share their insights on safe and efficient refueling & maintenance outages.

The following NATC Continuing Education Courses are offered prior to the Symposium:

Session #1: Alpha Hazard Awareness and NPP RP Department Program Elements

The course discusses the RP ALARA Program for a Nuclear Power Plant including templates for Alpha controls for BWR, PWR, & CANDU procedures, plant specific air sampling database, smear sample spread sheet, RP Professional and RP Technician training, and program audit/industry benchmarking results.

Session #2: Introduction to Data Mining for ALARA outage dose planning, historic modeling and optimization analysis with university super computer resources.

Session #3: Primary Water Chemistry and Source-term Management ,ISOE Expert Group Report

Source term reduction experts in chemical engineering, outage work management and water chemistry discuss various shutdown and clean-up techniques for BWRs, PWRs & CANDU plants. Also, the new ISOE Water Chemistry and Source Term Expert Group Report will be introduced. Experts from 5 countries including France, Canada, USA, Belgium and S. Korea, preparation of this report from 2010 – 2013.

Finally, the ISOE US & French working group on CZT measurements at PWRs will discuss their results. USA PWRs and French PWRs initiated a joint ISOE program to perform CZT measurements with the Canberra CZT instrumentation at specific locations in the plant during outage periods. The new University of Michigan CZT system (Polaris-H) will also be introduced by Dr. Zhong He with one year of in-plant measurement results from a US PWR. The Polaris-H system is unique with high sensitivity to gamma spectrum measurement and individual isotopic identification displayed on digital photo of in-plant area.

International ISOE Workshop 2014

International Workshop on Occupational Radiation Protection in Severe Accident Management”, co-sponsored by the OECD Nuclear Energy Agency (OECD NEA) and the International Atomic Energy Agency (IAEA) and hosted by the Nuclear Energy Institute (NEI), will be held 17 -18 June 2014 in Washington DC, USA.

The ISOE, with its participating utilities and regulatory authorities, is a core group of experts for exchanging experience in developing safe, sustainable and societally acceptable strategies for emerging operational issues in the field of occupational radiation protection. In response to the Fukushima Daiichi nuclear power plant accident, the Expert Group on Occupational Radiation Protection in Severe Accident Management and Post-Accident Recovery (EG-SAM) was established in May 2011. The overarching objectives of the expert group are to contribute to occupational exposure management (providing a view on management of high radiation area worker doses) in Fukushima with the ISOE participants, and to address the experience of various ISOE utilities with various occupational radiation protection management approaches in severe accidents, radiation protection management approaches for highly contaminated areas, selection of proper RP protective tools and clothes including remotely operated instruments, means to fix and eliminate contamination, access procedures to the site, shielding, emergency/accident individual dosimetry and its assessment, psychological aspects, etc. The final product of the group will be a report on best occupational radiation protection management procedures for proper radiation protection job coverage during severe accident, initial response and recovery efforts and radiation protection lessons learned from previous reactor accidents.

The interim report of the EG-SAM, which was accomplished during meetings through 2012 - 2013 and approved in the 23th Annual Session of ISOE Management Board, includes perspectives of the group and discussions on:

- Radiation Protection Management and Organisation,
- Radiation Protection Training and Exercises related to Severe Accident Management,
- Facility Configuration and Readiness,
- Overall Approach on the Protection of Workers,
- Radioactive Materials, Contamination Controls and Logistics, and
- Lessons Learned from the past accidents.

With the completion of the first step, the Management Board decided to organize an international workshop to introduce the interim report and to incorporate the national experiences that will be presented during the workshop for the finalization of the report.

The objectives of the Workshop are to share practices and experiences in approaches to severe accident management. The workshop will identify national experiences to be incorporated to the final version of ISOE EG-SAM report.

Workshop participation is limited and registration is required. The deadline for registration is 30 May 2014.

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

Registration can be done at the following website: <http://www.oecd-nea.org/confdb/confdb/conf?id=142>

Schedule of ISOE Meetings / Symposiums 2014

- 12 January 2014: NATC Professional Enrichment Program (Continuing Education Courses) (Ft. Lauderdale, Florida/US)
- 13-15 January 2014: ISOE North American Symposium (Ft. Lauderdale, Florida/US)
- 16-17 January 2014: RPM and Regulator Joint Meeting with US NRC Regions III & IV (Ft. Lauderdale, Florida/US)
- 7 April 2014 (morning session): ISOE Extended Bureau meeting (Bern, Switzerland)
- 7 April 2014 (afternoon session): ISOE EG-SAM meeting (Bern, Switzerland)
- 8 April 2014 RPMs & Regulatory Body Meetings (Bern, Switzerland)
- 9-11 April 2014: ISOE European Symposium (Bern, Switzerland)
- 17-18 June 2014: International ISOE Workshop on Occupational Radiation Protection in Severe Accident Management (Washington DC, US)
- 3-7 November 2014: ISOE Meetings (including WGDA and MB meetings)

Relevant Conference

- 1-5 December 2014: 2nd International Conference on Occupational Exposure (Vienna, Austria)

For further information, please visit ISOE websites	ISOE Network: www.isoe-network.net OECD/NEA: www.oecd-nea.org/jointproj/isoe.html IAEA TC: www-ns.iaea.org/tech-areas/rw-ppss/isoe-iaea-tech-centre.asp NATC: hps.ne.uiuc.edu/natcisoe/ ATC: www.jnes.go.jp/isoe/english/index.html
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