

# **Overview of the ATC activities in the last twenty years**

**2014 ISOE Asian ALARA Symposium**

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# Outline

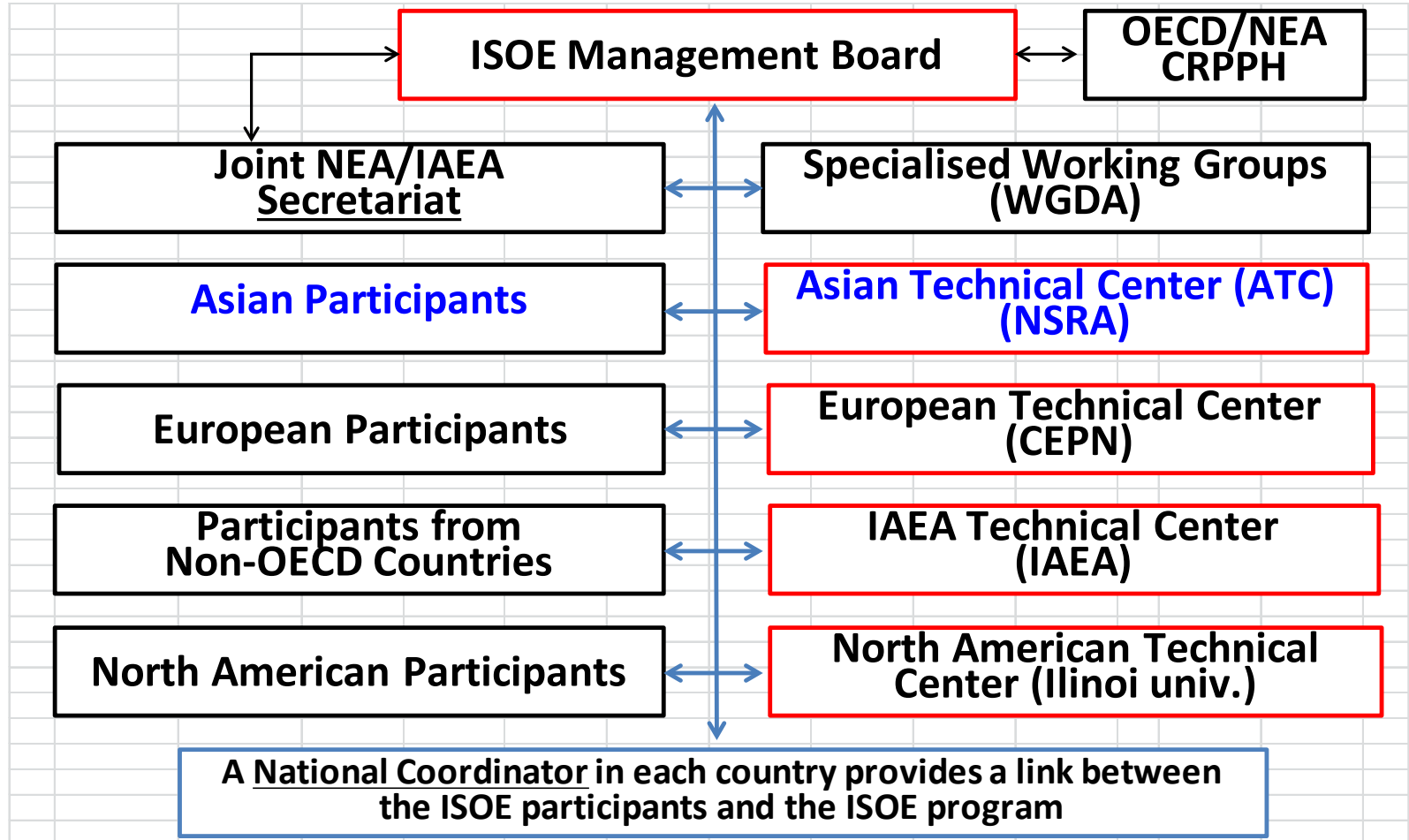
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- 1. History of the ATC**
- 2. Progress of NPPs for 20 years**
- 3. Topics of the ATC activity**
- 4. Towards the future**

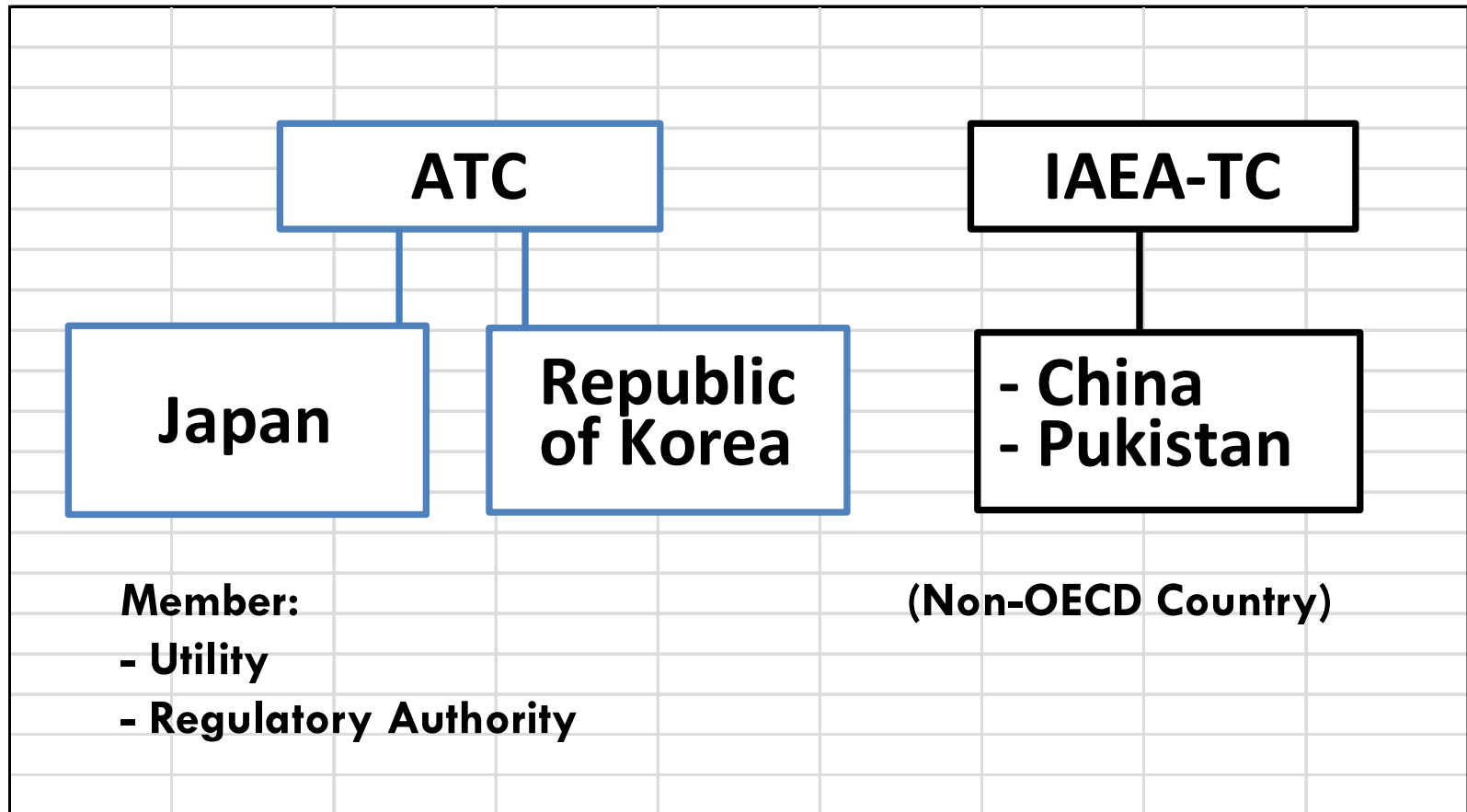
# Establishment of ISOE

- ISOE was Launched in 1992 by the OECD-NEA to provide a forum for radiation protection professionals from both **utilities** and **regulatory authorities** to share world-wide dose reduction information and operational experience and to coordinate international cooperative projects to improve the optimization of worker radiological protection at nuclear power plants.
- IAEA participated in 1993 as the IAEA Technical Center so that non-OECD countries could participate in ISOE.

# ISOE Structure



# ISOE Participant from Asia



# History of the ATC (1/2)

1991	The first ISOE Steering Committee meeting (Nov. 18)
1992	Establishment of <b>ISOE</b> (Jan. 1)
	<b>Japan</b> participated in ISOE (April)
	<b>ATC was established in NUPEC(*1)</b> (April)
1993	IAEA-TC was established
	<b>Republic of Korea</b> participated in ISOE (IAEA-TC)
1994	
1995	
1996	Republic of Korea moved to ATC from IAEA-TC
1997	
1998	IAEA became a co-secretariat of ISOE with NEA
	<b>Dr. Na(KINS):</b> IAEA secretariat and IAEA Technical Center(1998-2002)
1999	
2000	
2001	
2002	
2003	ATC changed from NUPEC to <b>JNES(*2)</b> by restructuring of NUPEC
	<b>Dr. Na</b> became ISOE vice-chair(2003-2005)
2004	

\*1: NUPEC: NUclear Power Engineering Corporation

\*2: JNES: Japan Nuclear Energy Safety Organization

# History of the ATC (2/2)

2005	ISOE Steering Group meeting was held in Tokyo.
	ISOE workshop, Hamaoka, Japan. (visit Hamaoka NPP) (The first Asian symposium)
	KISOE(*3) started operation. (developed in 2002–2004)
2006	ISOE Asian ALARA Symposium, Yuzawa, Japan (visit Kashiwazakikariwa NPP)
	Mr. Mizumachi(JNES) became the 7th ISOE chair(Nov., 2006) (2006–2008)
2007	ISOE Asian ALARA Symposium, Seoul, Korea (visit Uljin NPP)
2008	ISOE Management Board meeting was held in Kyoto, Japan.
	ISOE International ALARA Symposium, Tsuruga, Japan (visit prototype FBR Monju)
2009	ISOE Asian ALARA Symposium, Aomori, Japan (visit Higashidori NPP and JSW(*4) Muroran plant)
2010	ISOE Asian ALARA Symposium, Gyonjui, Korea (visit Wolsong and Shin-Wolsong NPP and Wolsong disposal center(*5))
2011	Fukushima Daiichi NPP Accident
2012	ISOE Asian ALARA Symposium, Tokyou, Japan (visit Onagawa NPP)
2013	ISOE International ALARA Symposium, Tokyo, Japan (visit Fukushima-daiichi NPP)
2014	ATC changed from JNES to NSRA(*6) by merge of JNES with NRA(*7)
	ISOE Asian ALARA Symposium, Gyonjui, Korea
	Dr. Hwang(KHNP) will become the 11th ISOE Chair(Nov. 2011)

\*3: KISOE: Korean Information System on Occupational Exposure

\*4: JSW: The Japan Steel Works, Ltd.

\*5: Wolsong low and intermediate level radioactive waste disposal center under construction

\*6: NSRA: Nuclear Safety Research Association

\*7: NRA: Nuclear Regulation Authority, Japan

# Dr. Na and Mr. Mizumachi (1/3)

The second decade of ATC was led by Dr. Na(KINS) and Mr. Mizumachi(JNES), and became more active.

(From “ISOE history report (2013)”(\*).)

“Seong Na discovered ISOE when he became head of its IAEA Technical Centre in 1998. Very quickly he became enthusiastic and favored the development of an interface between the ISOE software and Korean utilities (the KISOE system), and he has been even more active since going back to Korea in 2002.”

(\*)ISOE: History report (2013)

<http://www.isoe-network.net/index.php/publications-mainmenu-88/other-reports.html>



# Dr. Na and Mr. Mizumachi (2/3)

- One major condition of success of ISOE has been the provision of very friendly user tools for collecting, keeping and analyzing all needed data.
- “Each Latin character makes use of a single byte, while our Korean and Japanese characters make use of 2 bytes each; therefore your software cannot be handled in our mother languages.”(Dr. Na)
- By the integration of Unicode in Access 2000, Korean colleagues made translation possible in 2003.
- Japanese and Korean utilities became active ISOE members when the language problem was solved.

# Dr. Na and Mr. Mizumachi (3/3)

Mr. Mizumachi passed away on October 29th last year.

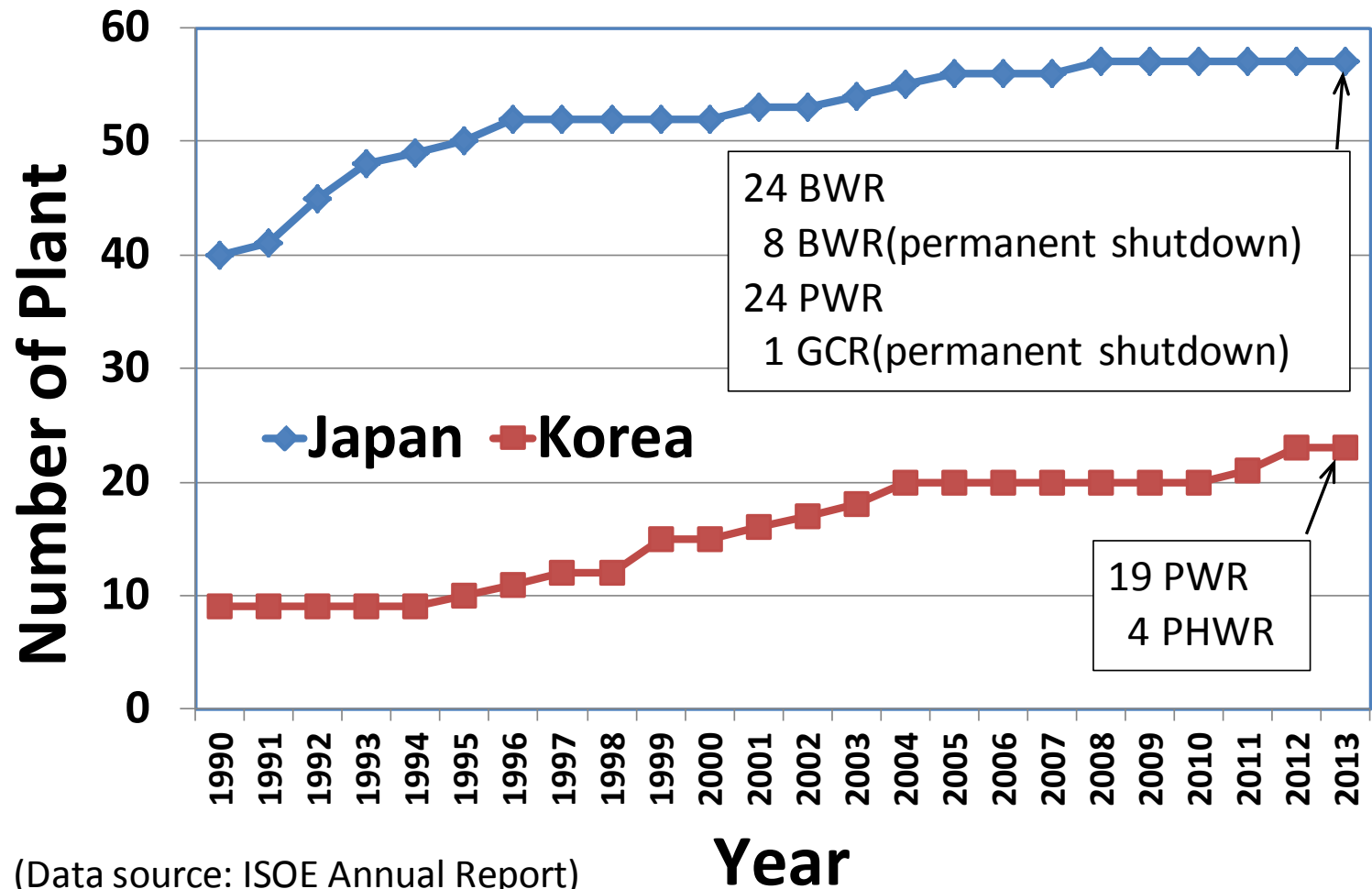
(From “ISOE News No. 21”, a written memorial for him.(\*))

“**Mr Mizumachi** participated in the ISOE program 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 NPPs around the world. 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 EG-SAM in 2011. His guidance and experience have helped the ISOE program to become the largest database and experience exchange platform for nuclear power plant occupational exposure management in the world.”

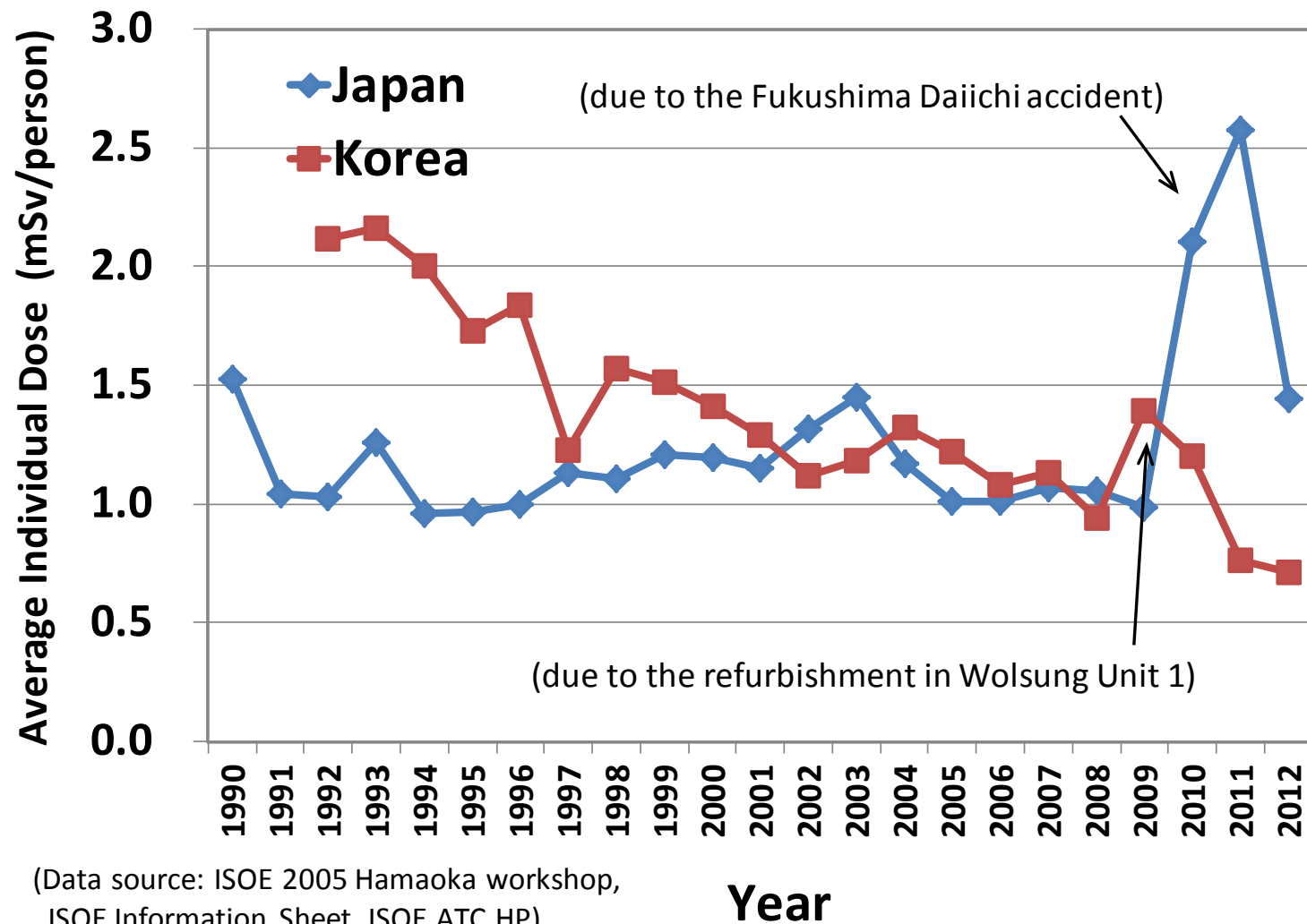
(\*)ISOE News:

<http://www.isoe-network.net/index.php/publications-mainmenu-88/isoe-news.html>

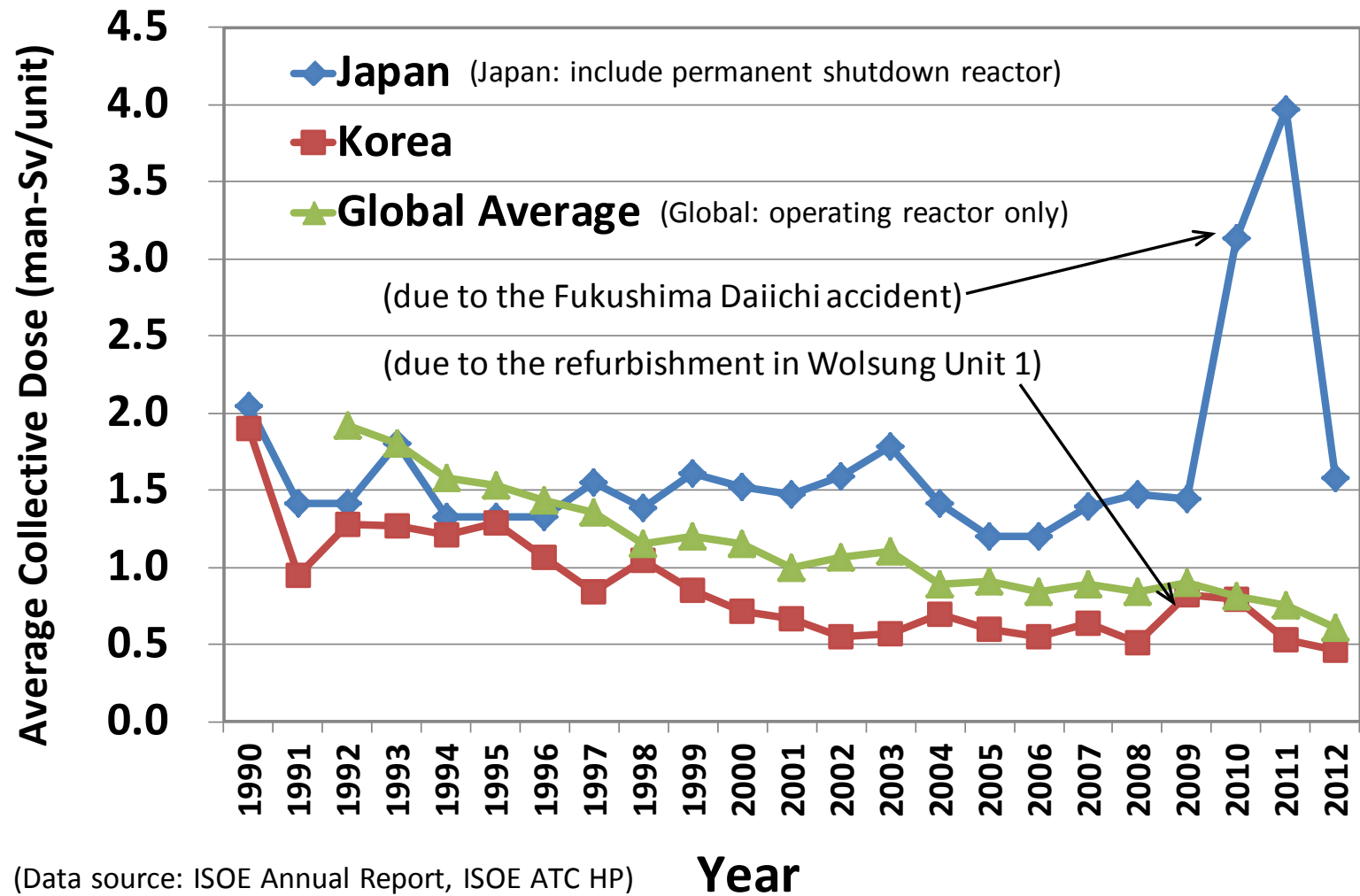
# Trend of Number of Reactors



# Trend of Average Individual Dose



# Trend of Average Collective Dose



# ISOE ATC Activities



- ISOE Database Management
- ALARA Symposium
- ISOE Management Meeting
- Working Group / Task Group
- Information Sheet
- Information Exchange through ISOE Network  
etc.

# ISOE Steering Group meeting in Tokyo

(“Steering Group” is the present “Management Board”)

(From ISOE News No.8)

The 15th Meeting of the ISOE Steering Group was held 7-8 November 2005 in Tokyo, Japan.

The meeting was chaired by Mr. Gagnon, ISOE Chair (Canada), and hosted by Mr. Mizumachi, ISOE Chair-elect, JNES/Asian Technical Center. The meeting was continued in Hamaoka with the Asian ALARA Workshop and site tour of the NPP.

(The first ISOE Steering Group meeting in Asia )

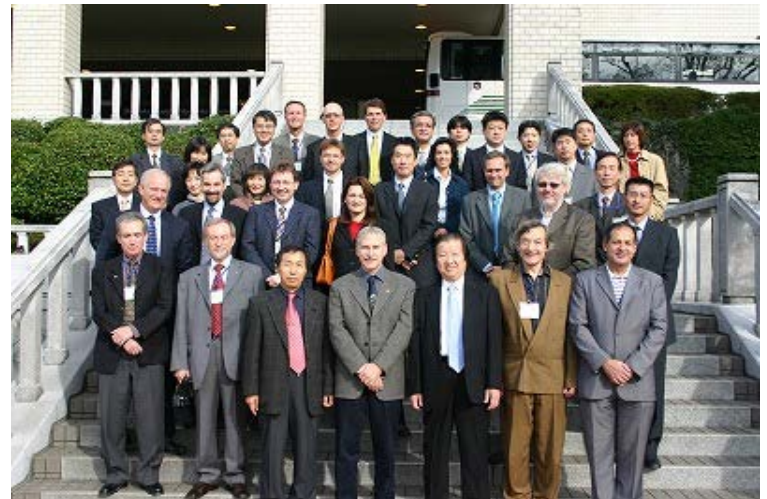
(Usually, Steering Group meeting is held at OECD/NEA or IAEA )

# ISOE Asian ALARA Workshop

(From ISOE News No.8)

The first ISOE Asian ALARA Symposium took place in Hamaoka, Japan on 9 November 2005, in conjunction with the 15th Meeting of the ISOE Steering Group. This workshop, organized by the Asian Technical Center, saw the involvement of about 55 participants from 14 countries.

Participants visited Hamaoka Nuclear Power Station on the next day.



(Symposium Proceedings: <http://www.isoe-network.net/index.php/symposium-mainmenu-113/proceedings.html>)



# ISOE Asian ALARA Symposium

(From ISOE News No.11)

The ATC, in collaboration with the Korean Hydro & Nuclear Power Co., Ltd (KHNP) and Korea Institute of Nuclear Safety (KINS), organized the 2007 ISOE Asian Regional ALARA Symposium, which was held 12-13 September 2007 in Seoul, Korea, with attendance of about 40 individuals from 4 countries.

A technical visit to Ulchin NPP was held on 14 September.

(The first ISOE Symposium in Korea)



# ISOE International ALARA Symposium

(From ISOE News No.13)

The 2008 ISOE International ALARA Symposium was held on 12-14 November 2008 in Tsuruga after the 2008 ISOE Management Board meeting held in Kyoto.

Prior to the symposium, the participants visited the Monju prototype fast breeder reactor site.

(The first ISOE International Symposium in Asia)



# Fukushima Daiichi NPP Accident

On March 11, 2011, Higashi-Nihon Disaster have led to the loss of thousands of lives and to the destruction of the main infrastructures in north-eastern Japan. As a result of these natural disasters, the Fukushima Daiichi site including six boiling water reactors has also been seriously damaged...

After the accident, Expert Group on Occupational Radiation Protection in Severe Accident Management and Post-Accident Recovery (EG-SAM) was established, and ISOE members of Japan and Korea participated in it.



# Towards the future

- Dr. Hwang will become the 11th ISOE Chair at the next ISOE Management Board meeting (November, 2014)
- NSRA starts activity as ATC.
- ATC Bylaw is newly established.
- Possibility of expansion of the Asian symposium.  
It is desirable to invite other Asian countries including Chinese Taipei and India as well as China and Pakistan.

I believe that the next decade of ATC will be more active by the cooperation of participants under a new system.



Thank you for your attention