

### Radiation Safety & Radioactive Waste Management Workshop 2019 1-3 October 2019, Hanoi, Vietnam

The FNCA 2019 Workshop on Radiation Safety and Radioactive Waste Management (RS&RWM) was held from 1st to 3rd October 2019, at the Silk Path Hotel Hanoi. The workshop was jointly organised by the Vietnam Atomic Energy Institute (VINATOM) and the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan.

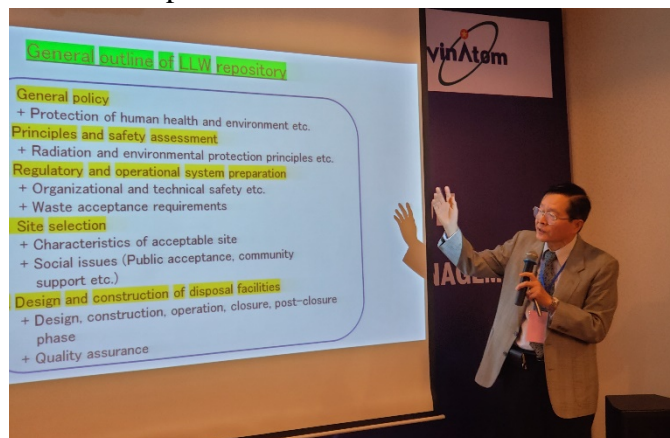


At Yen Phu Rare Earth JSC

Dr Tran Ngoc Toan, Vice President of VINATOM and FNCA Coordinator of Vietnam, and Mr Tomoaki Wada, FNCA Coordinator of Japan delivered a welcoming speech. Both of them emphasized the importance of radioactive waste management in the member countries, and wished the success of workshop

Following the welcome remarks, Mr Wada gave a presentation on the FNCA Achievements in 2018

and 2019. In his presentation, he introduced the Conclusion and Recommendation issued by the 19th FNCA Coordinators Meeting in which the project is suggested to assist member countries with safety improvement of low level radioactive waste management. Next, Dr Le Thi Mai Huong, FNCA Project Leader of Vietnam presented on the Vietnam's achievements in FNCA activities. In her presentation, she explained that through the activities of the FNCA RS&RWM project, especially the exchange of information and experiences among participating countries, understanding of, and correct information about, Radioactive Waste Management has been promoted, especially the technical viewpoints. Finally, Prof Toshiso Kosako, Project Leader of Japan reported the overview of the project, in which he explained about the consolidated report to be discussed during the workshop.



Prof Toshiso Kosako Explaining the Contents of Consolidated Report on LLWR

After the introductory sessions, Eleven (11) countries reported their progress, challenges, problems and future plans for low-level radioactive waste repository or repositories. Following the country reports, Dr Nguyen Ba Tien from Vietnam and Dr Norasalwa Binti Zakaria from Malaysia gave a presentation on NORM/TENORM and Disposal of Disused Sources respectively. Dr Tien presented on the NORM/TENORM disposal in Vietnam and introduced the issue of managing tailings wastes in uranium processing experiments, in mining and processing beach sand minerals, in exploiting and processing rare earth ores and in ZOC (Zircon) production. Dr Norasalwa presented on the disposal of disused sources in Malaysia referring to their borehole disposal system, and explained site location and site characterization, safety assessment and plans for the years to come.



On the second day, Dr Hideki Namba, FNCA Advisor of Japan introduced the MEXT Human Resources Development programs and FNCA activities related to the Radiation Safety and Radioactive Waste Management project. According to Prof Kosako, some fellows have attained important positions of their institutes after completing the program including chair or president of the organization. Furthermore, six people among the workshop participants had an experience to join the MEXT HRD program before.

After the morning session, The participants discussed on the general part and specific part of consolidated report. The revised drafts of the general and specific reports from each country are to be sent to Ms Tanida by Fri 29 November 2019. The report will come from the FNCA project leaders in each country.

In the afternoon, eleven countries introduced their hot topics using a poster. The title of each poster is as shown below:

- Australia: ILW Storage at the Australian LLW Repository: Centralised Storage of Intermediate Level Waste Benefits and Disadvantages
- Bangladesh: Activities of Health Physics & Radioactive Waste Management Unit (HPRWMU)
- China: Unbalanced Development between Nuclear Energy Boom and Radioactive Waste Disposal Site Construction in China
- Indonesia: Study on Inventory and Repository of TENORM Waste from Tin Industry in Bangka Island Indonesia
- Japan: Decontamination Evaluation and Reduction of Radioactive Waste / JAEA actions in Fukushima
- Kazakhstan: Kazakhstan's Activities on Bringing the Territory of the Former Semipalatinsk Test Site to Safety State
- Malaysia: Strengthening Radiation Safety and Facilities Upgrade at the National Radioactive Waste Management Center
- Mongolia: Radiation Safety and Radioactive Waste Management in Mongolia
- Philippines: Radioactive Waste Management in the Philippines Moving Forward
- Thailand: Radioactive Waste Management Support Megaport Initiative at Laem Chabang Seaport Thailand



- Vietnam: A Study on a Closed-Loop Production of Coagulants and Pigments without Secondary Wastes from Vietnam Red Mud

Summary of each presentation can be found on the **FNCA website**.

The participants joined a technical visit to Yen Phu Rare Earth JSC.



## **Workshop Participants**

### **■ Australia**

#### **Mr Duncan Kemp**

Manager, Waste Management Services  
Nuclear Operations  
Australian Nuclear Science and Technology  
Organisation (ANSTO)

### **■ Bangladesh**

#### **Dr M. Moinul Islam (PL)**

Chief Scientific Officer,  
Bangladesh Atomic Energy Commission

### **■ China**

#### **Mr Qin Guoqiang**

Deputy Director of Environmental Protection and  
Radiation Safety Department,  
China National Nuclear Corporation (CNNC)

### **■ Indonesia**

#### **Dr Dadong Iskandar**

Senior Researcher,  
Center for Radioactive Waste Technology,  
National Nuclear Energy Agency (BATAN)

### **■ Japan**

#### **Mr Tomoaki Wada (CD)**

FNCA Coordinator of Japan

#### **Dr Hideki Namba (AD)**

FNCA Advisor of Japan

#### **Prof Toshiso Kosako (PL)**

Professor Emeritus,  
The University of Tokyo

#### **Mr Tatsuo Saito**

Assistant Principal Engineer,  
Predisposal Management Office  
Planning Department  
Decommissioning and Radioactive Waste  
Management Head Office  
Japan Atomic Energy Agency (JAEA)

### **Dr Makoto Hashimoto**

General Manager,  
Radiation Dosimetry and Environmental Monitoring  
Section,  
Radiation Protection Department,  
O-arai Research and Development Institute,  
Japan Atomic Energy Agency (JAEA)

### **■ Kazakhstan**

#### **Mr Yevgeniy Tur (PL)**

Senior Engineer,  
National Nuclear Center of the Republic of  
Kazakhstan

### **■ Malaysia**

#### **Dr Norasalwa Binti Zakaria (PL)**

Unit Manager,  
Malaysian Nuclear Agency

### **■ Mongolia**

#### **Ms Uranchimeg Batdelger**

Senior officer,  
The Executive of Nuclear Energy Commission,  
Government of Mongolia

### **■ Philippines**

#### **Ms Kristine Marie Dacallo Romallosa**

Supervising Science Research Specialist,  
Philippine Nuclear Research Institute (PNRI)

### **■ Thailand**

#### **Mr Nikom Prasertchiewchan**

Manager of Radioactive Waste Management Center,  
Thailand Institute of Nuclear Technology (TINT)

#### **Mr Witsanu Katekaew**

Head of Radioactive Waste Management Section,  
Radioactive Waste Management Center,  
Thailand Institute of Nuclear Technology (TINT)

### **■ Vietnam**

#### **Dr Tran Ngoc Toan (CD)**

Vice President,  
Vietnam Atomic Energy Institute (VINATOM)

**Assoc. Prof. Dr Le Thi Mai Huong (PL)**

Deputy Director,  
Institute for Technology of Radioactive & Rare  
Elements (ITRRE)

**Mr Nguyen Ba Tien**

Vietnam Atomic Energy Institute (VINATOM)

**Ms Doan Thi Thu Hien**

Vietnam Atomic Energy Institute (VINATOM)

**Mr Le Hong Minh**

Vietnam Atomic Energy Institute (VINATOM)

■ **FNCA Secretariat**

**Ms Ayako Tandia**

International Affairs and Research Department,  
Nuclear Safety Research Association (NSRA)

\*Detailed information and summaries of the workshop  
can be found on the FNCA website.

([http://www.fnca.mext.go.jp/english/rwm/e\\_ws.html](http://www.fnca.mext.go.jp/english/rwm/e_ws.html))



**FNCA Secretariat**

International Affairs & Research Department,  
Nuclear Safety Research Association (NSRA)  
5-18-7 Shimbashi, Minato-ku, Tokyo, 105-0004,  
Japan  
TEL: +81-3-5470-1983  
FAX: +81-3-5470-1991  
E-mail: [fnca@fnca.mext.go.jp](mailto:fnca@fnca.mext.go.jp)

# The FNCA RS&RWM Project Leaders

## Australia



**Mr Duncan Kemp**  
Manager, Waste Management Services  
Nuclear Operations  
Australian Nuclear Science and  
Technology Organisation (ANSTO)

## R.O. Korea



**Dr Hyuncheol Kim**  
Senior Researcher  
Environmental Radioactivity  
Assessment Team  
Korea Atomic Energy Research  
Institute (KAERI))

## Banglades



**Dr Moinul Islam**  
Chief Scientific Officer,  
Health Physics & Radioactive Waste  
Management Unit, Atomic Energy  
Research Establishment (AERE),  
Bangladesh Atomic Energy Commission  
(BAEC)

## Malaysia



**Dr Mohd Abdul Wahab Yusof**  
Director,  
Waste and Environmental Technology  
Division,  
Malaysian Nuclear Agency (Nuclear  
Malaysia)

## China



**Dr Zhang Jintao**  
Deputy Director General,  
Department of Safety, Protection and  
Quality, China National Nuclear  
Corporation (CNNC)

## Mongolia



**Ms Oyuntulkhuur Navaangalsan**  
Head,  
Radiation Safety Council  
Nuclear Energy Commission

## Indonesia



**Mr Suryantoro**  
Director of Center for  
Radioactive Waste Technology, National  
Nuclear Energy Agency of Indonesia  
(BATAN)

## Philippines



**Ms Maria Visitacion B. Palattao**  
Head, Regulations and Standards  
Development Section, Philippine  
Nuclear Research Institute (PNRI)

## Japan



**Prof Toshiso Kosako**  
Professor Emeritus,  
The University of Tokyo

## Thailand



**Mr Witsanu Katekaew**  
Head of Radioactive Waste  
Management Section,  
Radioactive Waste Management  
Center,  
Thailand Institute of Nuclear

## Kazakhstan



**Mr Yevgeniy Tur**  
Technical and Economic Assessment  
Department  
National Nuclear Center (NNC) of the  
Republic of Kazakhstan

## Vietnam



**Assoc. Prof. Dr Le Thi Mai Huong**  
Deputy Director  
Institute for Technology of Radioactive  
& Rare Elements (ITRRE)