

Minutes of
FNCA 2014 Workshop on
Radiation Safety and Radioactive Waste Management

September 9th - 12th, 2014

Astana, Kazakhstan

1) Outline of Workshop

i) Date	September 9-12, 2014
ii) Venue	Astana, Kazakhstan
iii) Host Organizations	Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT) and National Nuclear Center of the Republic of Kazakhstan (NNC)
iv) Participants	15 from 10 countries (Australia, Bangladesh, Indonesia, Japan, Kazakhstan, Malaysia, Mongolia, The Philippines, Thailand, and Vietnam)
v) Program	Annex 1

2) Programme

The FNCA 2014 Workshop on Radiation Safety and Radioactive Waste Management (RS&RWM) was held from September 9th to 12th 2014, in Astana, Kazakhstan. This workshop was jointly hosted by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan and National Nuclear Center (NNC) of Republic of Kazakhstan.

Fifteen representatives involved in the policymaking, regulatory, operations, and research and development on radiation safety and radioactive waste management from ten FNCA member countries attended the workshop. These countries were Australia, Bangladesh, Indonesia, Japan, Kazakhstan, Malaysia, Mongolia, The Philippines, Thailand and Vietnam. The program for the workshop is attached as **Annex 1**.

[Opening Session]

Dr.Erlan G. Batyrbekov, Director General, National Nuclear Center of the Republic of Kazakhstan declared the opening of the workshop with welcoming speeches. He cordially welcomed all the participants to Kazakhstan, and emphasized that this workshop is a good opportunity for Asian specialists to acquire modern trends in the different fields of radiation applications as well as to make connections with researchers in member countries. Prof. Toshiso Kosako, Nuclear Professional School, Graduate School of Engineering, The University of Tokyo who is Leader of this FNCA Project expressed his deep appreciation to the National Nuclear Center (NNC) of The Republic of Kazakhstan for generously hosting the

workshop and emphasized the importance of taking both benefits and risks of use of radiation and radioactive material into consideration. Dr. Shayakhmet Shiganakov, Head of the Department of Nuclear Strategy, the Ministry of Energy of the Republic of Kazakhstan, also gave his remarks on behalf of Ministry of Energy. He gave a brief overview of the Department of Nuclear Strategy of the Ministry of Energy which was recently established as a result of government reorganization. This was followed by the confirmation of agenda as well as self-introduction of each participant of the workshop. The list of participants is attached as **Annex 2**.

Prof. Tomoaki Wada, FNCA Adviser of Japan and Vice President, Japan Foundation of Public Communication on Science and Technology then gave an overview of FNCA activities and review outlines and conclusions from the 14th FNCA Ministerial Level Meeting and 15th FNCA Coordinators Meeting. In addition to the proposals made for 10 ongoing projects, he briefly explained the current status of the Fukushima Daiichi Nuclear Power Station and the new strategic energy plan of Japan.

[Session I] Country Report Presentation

- Nuclear/Radiological Emergency Preparedness and Response -

Ten country reports were presented detailing nuclear/radiological emergency preparedness and response such as regulatory framework, zonation, emergency classification, on-site and off-site response, and local government preparedness, training and education personnel and monitoring plan. A brief summary of each report is attached as **Annex 3**.

[Session II] Discussion on framework of Consolidated Report on Nuclear/Radiological Emergency Preparedness and Response

Prof. Toshiso Kosako suggested that the consolidated report on Nuclear/Radiological Emergency Preparedness and Response covers 1) fact finding and experience sharing, 2) radiation protection principles, 3) categorization, 4) possibility of international support, and 5) regulations and guidelines. After confirmation of the working schedule, member countries were divided into three groups to discuss the appropriate contents of the consolidated report. Each group shared their ideas by presenting their outputs. The agreed topics for the content of the report is attached as **Annex 5**.

[Session III] Discussion on challenges faced by FNCA participating countries in the area of RS&RWM

Seven countries delivered presentations on 1) radiation safety issues in uranium mining, 2) challenges in RS&RWM in RI facilities/nuclear power plant, 3) plans for NPP introduction, and 4) status and plans for low level waste disposal facilities/long term storage facilities. Each summary of the presentations are attached as **Annex 3**.

[Open Seminar] Radiation Protection in Nuclear and Radiation Facilities

An open seminar on Radiation Protection in Nuclear and Radiation Facilities was held at Nazarbayev University on 11 September. The opening remarks was made by Prof. Baigarin Kanat, Director, Institute of Innovative Technologies, Nazarbayev University. He expressed his gratitude for holding a seminar on radioactive waste management as it is an important and urgent matter in Kazakhstan which Nazarbayev University is engaged in. After describing the structure of the university, he wished the participants success in their work and hoped that their stay in Astana will be pleasant.

Prof.Toshiso Kosako expressed appreciation for Nazarbayev University and expected good communication especially with the younger generation.

Presentation on radioisotopes application was made by Dr.Shoji Futatsukawa, Executive Director Designated, Japan Radioisotope Association. Consequently, Dr.Mohd Abd Wahab Bin Yusof, Director, Division of Waste and Environmental Technology, Malaysian Nuclear Agency and Prof. Toshiso Kosako gave their presentations on IAEA Safety Standard and ICRP recommendations and basics of radiation safety, respectively. Prof.Tomoaki Wada explained the overview of FNCA activities and MEXT programs supporting HRD for nuclear energy and radiation utilization in Asian countries.

The afternoon session pertained to panel discussion on 2 relevant topics: Safety Management of Naturally Occurring Radioactive Material (NORM) and Safety Management of Radioactive Sources on the Medical Field. The lead speech on safety management of NORM in Kazakhstan was given by Mr.Timur Zhantikin, Deputy Chairman, Committee of Safety in Power and Nuclear Industry. Joining this topic for the panel discussion were Prof. Kosako who acted as chair and other representatives from Australia, Indonesia, Malaysia and Mongolia. The next topic on safety management of radioactive sources in medical institutions was presented by Ms.Nanthavan Ya-anant, Head, Radioactive Waste Management Section, Radioactive Waste Management Center, Thailand Institute of Nuclear Technology (TINT). Participants from Bangladesh, Japan, Philippines, and Vietnam joined the presenter for the panel discussion of the said topic. Attached as **Annex 4** is the summary of the open seminar.

[Session IV] Technical Visit to Institute of Nuclear Physics

A technical visit to the Institute of Nuclear Physics (INP) was conducted in the afternoon of 12 September 2014. The INP is one of leading organizations in Kazakhstan in the field of fundamental nuclear/material science and technological developments. The main activities include research work in the field of energy interaction, environmental testing, radioisotopes production and developments in the field of reactor engineering. The infrastructure of the institute has been applied not only for research but also for educational purpose. Later on, the FNCA participants visited the education and research complex where the heavy ion accelerator DC 60 is located and learned about the activities carried out by the complex.

The main future prospects for its development include various cooperation with both local and international professional organizations and its accreditations.

[Session V] Wrap-up Discussion -Summary of Workshop and Proposals of Future Project Activities(2014-2016) -

Participants agreed with the draft contents of the consolidated report on Nuclear/Radiological Emergency Preparedness and Response and decided to cooperatively work towards the completion of the first draft.

The tentative venue of the next workshop would either be in Indonesia or Vietnam.

[Closing Session]

With the closing remarks from Mr. Sergey Berezin, Deputy Director, National Nuclear Center of the Republic of Kazakhstan and Prof. Toshiso Kosako, the workshop was officially declared close.

Attachment

Annex 1 – Program

Annex 2 – List of Participants

Annex 3 – Summary of Each Session

Annex 4 – Summary of Open Seminar

Annex 5 –Table of Contents for Consolidated Report on Nuclear/Radiological Emergency Preparedness and Response