



**IAEA**

International Atomic Energy Agency

*Atoms for Peace*

**DIVISION OF RADIATION TRANSPORT AND WASTE SAFETY**



**EduTA**

**EDUCATION AND TRAINING APPRAISAL MISSION**

**IN**

**MALAYSIA**

**26-30 September 2011**

## COMPOSITION OF THE IAEA APPRAISAL TEAM

1. Mohammad Hassan Kharita, Senior Expert, Team Leader, Syrian Arabic Republic
2. Andrea Luciani, Team Coordinator, IAEA
3. Jurate Vaicekaviciute, Expert, Lithuania

## PERSONS MET DURING THE APPRAISAL MISSION

*(as provided by Nuclear Malaysia staff)*

Name	Designation
<b>Malaysian Nuclear Agency</b>	
Dr. Muhamad Lebai Juri	Director General
Dr. Muhd Noor Muhd Yunus	Deputy Director General
Dr. Zulkifli Hashim	Senior Director
Dr. Jaafar Abdullah	Manager Plant Assessment Technology / Industrial Technology Division
Mr. Muhamad Ali	Manager Corporate Communication Unit
Mr. Shafaai Hassan	Manager Training Centre
Mr. Raja Jamal Raja Hedar	Research Officer, International Relation Department
Ms. Hazmimi Kasim	Research Officer, International Relation Department
Mr. Zakaria Taib	Assistant Administrative Officer, Human Resource Department
Ms. Nor Azillah Fatimah Othman	Research Officer, Training Coordinator
Ms. Siti Nor Syafiqah	Research Officer, Training Coordinator
Ms. Wan Nor Syazlin wan Yunoh	Research Officer, Training Coordinator
Mr. Muhammad Ibrahim	Research Officer, Training Coordinator
Mr. Muhammad Ibrahim Mohd Nahar	Research Officer, Training Coordinator
Mr. Zakaria Taib	Assistant Administrative Officer, Human Resource Department

Mr. Norfaizal b. Mohamad	Research Officer
Mr. Yii Mei Woo	Research Officer
Mr. Shahrudin Sayuti	Research Officer
Dr. Mahmood Dollah	Research Officer
Mr. Hearie Hassan	Technical Assistant
Mr. Mahadi B. Mustapha	Lab Assistant
Mr. Roslan B. Yahaya	Research Officer
Mr. Salzali Mohd.	Research Officer
Mr. Mohd Amirul Syafiq Mohd Yunos	Research Officer
Mr. Engku Mohd Fahmi B. Engku Chik	Research Officer
Mr. Muhammad Jamal Md. Isa	Research Officer
Mr. Taiman Kadni	Research Officer
<b>Universiti Sains Malaysia (USM)</b>	
Prof. Muhamad Suhaimi Jaafar	Lecturer
Dr. Azhar Abdul Rahman	Lecturer
Iskandar Shahrin B. Mustafa	Lecturer
Dr. Sivamany Kandaiya	Lecturer
Dr. Sohail	Lecturer
Dr. Izani Uzair Zubair	Head of Health Assistant Director
Dato' Dr. Mohamed Ali Kader	Head of Department
Mohd. Hizwan Mohd Yahya	Physicist
Muhammad Lutfi Abdul Samat	Technologist

Mustaffa B. Hamidin	Technologist
Dr. Salwah Hashim	Head of Department
Saw Chong Beng	Radiologist
Norman Sebastian	Radiographer
<b>Atomic Energy Licensing Board (AELB)</b>	
Hasmadi Hassan	Director of Licensing Division
Hamrah Mohd. Ali	Director of Enforcement Division
Azizah Umam	Policy, Code and Standard Division
Nuriati Nurdin	Licensing Division
Fedrick Charlie	Science Officer
<b>Universiti Kebangsaan Malaysia (UKM)</b>	
Prof. Muhammad Samudi Yasir	Lecturer
Prof. Reduwan	Lecturer
Norsidah Nordin	Asst. Science Officer
Munira Hassan	Lab Asst.
<b>Ministry of Health (MoH)</b>	
Datuk Dr. Noor Hisham Abdullah	Deputy, Director General
Mr. Ng Aik Hao	Assistant Director
Dr. Pirunthavany Muthuvelu	Science Officer
Bazli Sapiin	Science Officer
M. Nasrul Azizi B. M. Shukry	Science Officer
Ms. Nurul Ashikin Sidi Ahmad	Science Officer
Ms. Noor Zaimah Zainul Abidin	Science Officer

Mr. Tan Hun Yee	Science Officer
Mr. Mohd Reduan Abd Razak	Science Officer
Mr. Bidi Ab. Hamid	Science Officer
<b>Hospital Kuala Lumpur (HKL)</b>	
Dr. Gerard Lim Chin Chye	Consultant Clinical Oncologist, Headd, Department Of Radiotherapy And Oncology, Kuala Lumpur Hospital, Head Of Radiotherapy Services Malaysia
Dr. Aminuddin Rahman Bin Mod. Mydin	Clinical Oncologist
Dr. Siti Zaleha Binti Md. Sani	Medical Officer
Dr. Wong Yoke Hui	Medical Officer
Mohd. Azhar Bin Musa	Chief Physicist
Yusnira binti Yusoff	Physicist
Rubiah Binti Mohd. Pakeh	Chief Radiation Therapist
S. Ravathy	Matron

## **BACKGROUND**

In January 2011 the Malaysian Nuclear Agency (Nuclear Malaysia) wrote to IAEA to receive an EduTA as follow-up mission after the appraisal organized in 2005, “*to continually improve the performance and further develop E&T in line with our ISO quality management system towards sustainability and self-reliance*”. The request of the EduTA followed a letter to the IAEA Technical Cooperation Department (October 2010) requesting to enter with the Agency in a Long Term Agreement for education and training in radiation protection.

The EduTA mission was organized from 26 to 30 September 2011 with external experts and an IAEA Technical Officer.

The principal Agency publications used as a basis for the appraisal were:

- The Education and Training Appraisal in Radiation Protection and the Safety of Radiation Sources (EduTA) (Working Material July 2008);
- The International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources (SS No. 115);
- Radiation Protection and Safety of Radiation Sources - International Basic Safety Standards, 2011 Edition, General Safety Requirements Part 3, No. GSR Part 3 Draft 5.0, March 2011;

- The Safety Guide, Building Competence in Radiation Protection and the Safe Use of Radioactive Sources (RS-G-1.4);
- Safety Report, Training in Radiation Protection and the Safe Use of Radioactive Sources (SRS-20);
- Standard Syllabus Postgraduate Educational Course in Radiation Protection and then Safety of Radiation Sources (Training Course Series 18);
- Draft Syllabus for the Training of Radiation Protection Officers.

## **TERMS OF REFERENCE OF THE APPRAISAL**

The terms of reference for this appraisal were:

- To carry out an education and training appraisal mission to review the status of the provision for education and training in radiation protection, including:
  - legislative and regulatory framework with particular reference to education and training;
  - guidance material relevant to education and training;
  - the national training programme in radiation safety or similar document;
  - approved/accredited training course providers/centres and accredited training courses, if approval/accreditation procedures/systems exist;
  - annual reports from accredited training course providers/centres; recognition/approval/accreditation procedures for education and training providers;
  - courses held in the past calendar year and the numbers of participants attending;
  - list of education and training events planned;
  - the facilities used for educational and training programmes;
  - available human resource and national lecturers.
- To outline an Action Plan, together with the counterparts, to address improvements, if any, identified during the assessment.

## **CONDUCT OF THE APPRAISAL**

Initial discussions were held by the EduTA team with Dr. Zulkifli Hashim (Senior Director) at the Headquarters of Nuclear Malaysia in the presence of Dr. Jaafar Abdullah (Manager of Plant Assessment Technology, Industrial Technology Division), Muhamad Ali (Manager of the Corporate Communication Unit), Shafaai Hassan (Manager of the Training Centre) together with the research officers and training coordinators of Nuclear Malaysia. A general overview about Nuclear Malaysia's mission and activity was given together with presentations about the education and training activities of the Training Centre and on the results of a study about the impact of nuclear technology in Malaysia.

The EduTA team briefed the hosts about the mission. The objectives were presented and the procedure for the conduct of the mission with its agenda was agreed.

The pre-appraisal information provided to the team was discussed in detail and additional information was requested where necessary. During the mission, numerous documents were provided to the team.

During the five day mission, the EduTA team continued discussions with the host and visited facilities/laboratories of Nuclear Malaysia. On the second day, the EduTA team and some staff of Nuclear Malaysia flew to Penang to visit the University of Science Malaysia that hosts the lectures for the theoretical modules of the PGEC; in Penang the team visited also the Pulau Pinang Hospital where some practical exercises of the PGEC are conducted. During the rest of the week the EduTA team continued the visits in Kuala Lumpur at the National University of Malaysia and the Kuala Lumpur Hospital. The team also had meetings at the Atomic Energy Licensing Board (AELB) and the Ministry of Health.

An exit meeting was held at Nuclear Malaysia at the presence of the Director General of Nuclear Malaysia Dr. Muhamad Lebai Juri, the Deputy Director General Dr. Muhd Noor Muhd Yunus and the management and scientific officers to present the Appraisal Team's preliminary conclusions. The recommendations and action plan were agreed with the local counterpart.

A full technical report with the findings, recommendations and a work plan was provided to the mission's counterpart and the national authorities.