



สำนักงานปรมาณูเพื่อสันติ
OFFICE OF ATOMS FOR PEACE

Capability of Thailand on Nuclear Forensics and Regional Collaboration

The International Symposium on Technology Development
for Nuclear Security
Focus on Nuclear Forensics and Regional Collaboration
5 June 2017
Tokyo, Japan

by
Office of Atoms for Peace (SB)



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Initiative of Nuclear Forensics in Thailand



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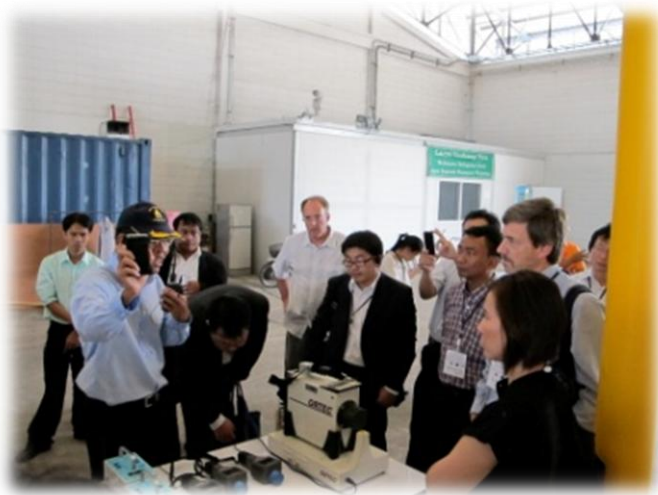


Nuclear Forensics Workshop ASEAN Regional Forum(ARF)
by US-DOE, EU and Thailand in Bangkok on 2011



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Thai Prime Minister on 2012 Seoul Nuclear Security Summit stated that 'Thailand had arranged the ASEAN Regional Forum on Nuclear Forensics on December 2011 and now it is in progress of establishing a Nuclear Forensics Intelligence Center'



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National Capability in Nuclear Forensics



Radiation and Radiological Measurement System





Radiation and Radiological Chemical Laboratory



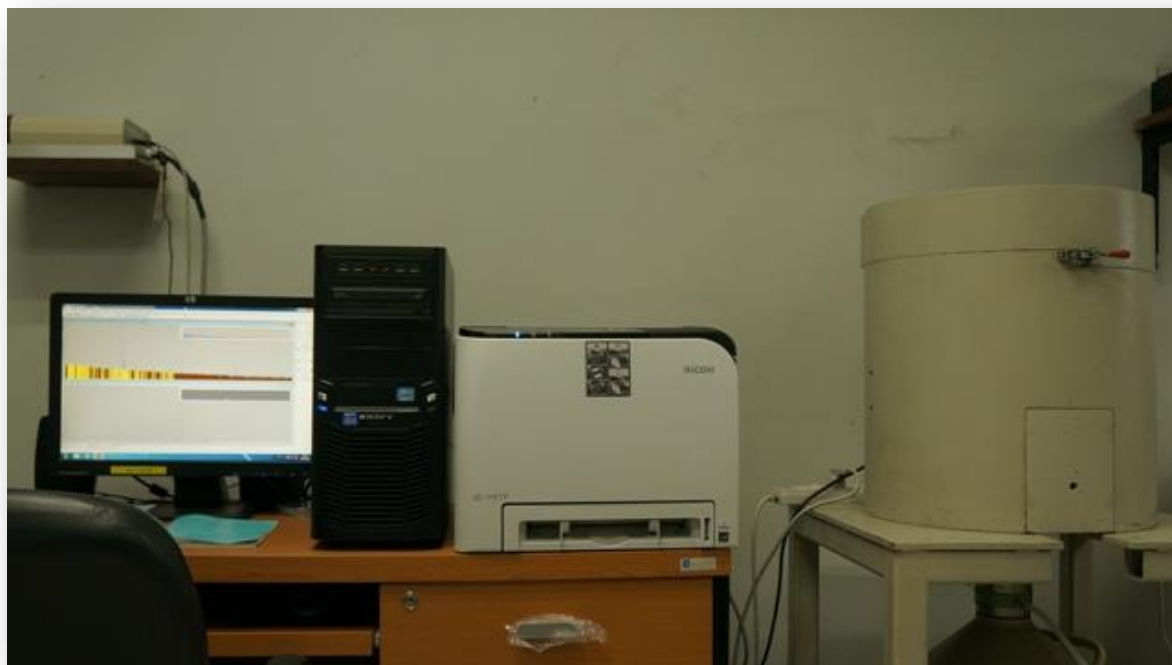


Nuclear and Radiation Metrology Laboratory





Instruments



Gamma Spectrometry on 2011



Instruments



Inductively Coupled Plasma Spectrometry (ICP-MS) on 2013



CBRN Center of Excellence An Initiative of the European Union

Project 30 (2013-2014)

Title:

Network of Excellence for Nuclear Forensics in South East Asia Region



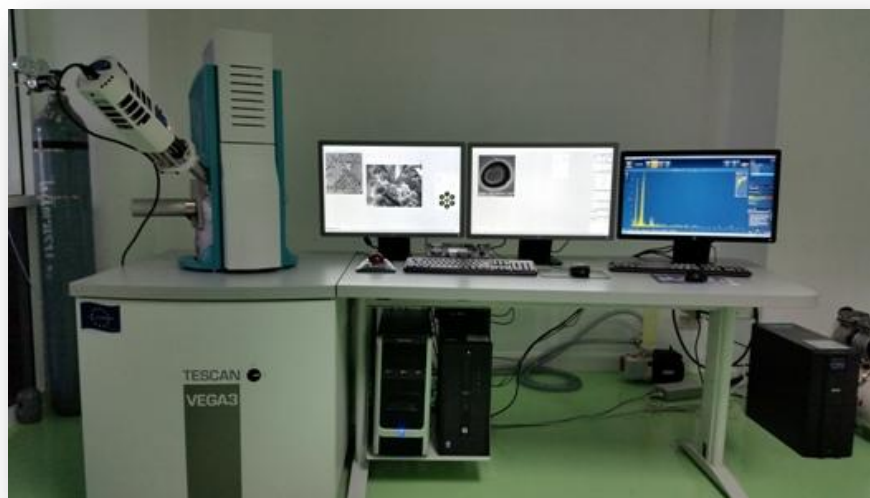


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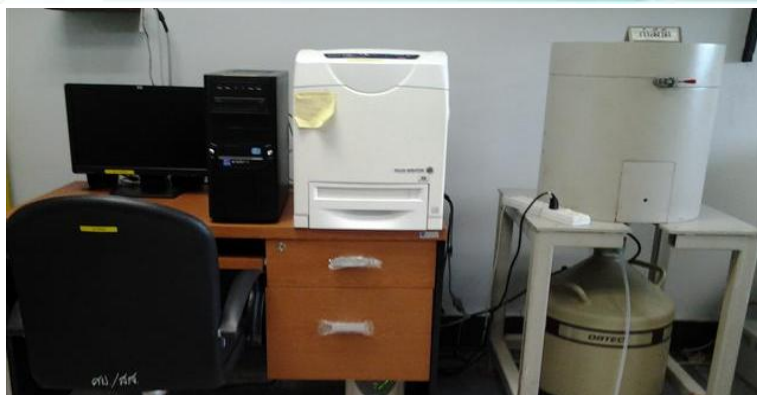


Scanning Electron Microscope with Energy Dispersive X-Ray Fluorescence (SEM/EDS) on 2015



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Instruments

- Hyper Pure Germanium Gamma spectrometer
- Inductively coupled plasma mass spectrometer
- Scanning Electron Microscope with Energy Dispersive Spectrometer
- Sputter Coater
- Hand-held HPGe



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Human Capital Development



**5 Nuclear Chemists and 1 Radiation Physicist
responsible in Nuclear Forensics**



Training Courses by IAEA, EU and US DOE

- Regional training course on radiological crime scene management and introduction to nuclear forensics
- International Workshop on Nuclear Forensics Methodologies
- Regional Experts Meeting on Non-proliferation Nuclear Forensics for ASEAN States Enhancing Regional Capacity-building to Strengthen Nuclear Forensics
- International Conference on Advanced in Nuclear Forensics: Countering the Evolving Threat of Nuclear and Other Radioactive Material out of Regulatory Control
- Training on ICP-MS and SEM Techniques - Capacity Building in Nuclear Forensics in South East Asia



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REGIONAL ACTIVITY UNDER ASEANTOM



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ASEAN Network of Regulatory Bodies on Atomic Energy 'ASEANTOM'



1ST INTERNATIONAL CONFERENCE
ON SAFETY, SECURITY AND SAFEGUARDS
IN NUCLEAR ENERGY
SEPTEMBER 1-2, 2011
OFFICE OF ATOMS FOR PEACE, THAILAND





Objective

- To enhance regulatory activities and further strengthen nuclear safety, security and safeguards within the **ASEAN Community**, by enhancing cooperation and complementing the work of *existing mechanisms* at the national, regional and international levels.



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Political Recognition



On 23 December 2015, ASEAN Secretariat informed
ASEAN Member State that

- ' ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM) has been designated as an Annex 1 sectoral body under the ASEAN Political-Security Community'
- ASEANTOM will provide the official framework to facilitate cooperation among the nuclear regulatory bodies of ASEAN Member States to promote nuclear safety, security and safeguards in the region.
- ASEANTOM will also be the key point of contact with International Atomic Energy Agency (IAEA) to promote greater cooperation and collaboration on issues related to safety, security and safeguards, including capacity building to benefit all Member States
- ASEANTOM as a new sectoral body will report to ASEAN Senior Officials Meeting (ASEAN SOM)



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ASEANTOM 1st Meeting in Phuket, Thailand on 2013





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ASEANTOM 2nd Meeting in Chiang Mai, Thailand on 2014





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Regional Workshop on Introduction to Nuclear Forensics and
Biological Dosimetry for ASEANTOM MS
3-5 February 2016, Office of Atoms for Peace, Thailand





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Current Activities

The Director General of the International Atomic Energy Agency (IAEA) visited Nuclear Forensics Laboratory on 4 August 2016.





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ASEANTOM Workshop on Capacity Building and Strengthening Nuclear Security Network in ASEAN Region ,March 2017.



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Current Activities

- National nuclear forensics library
- OAP needs to enhanced the capabilities of signatures analysis to support the nuclear activities in various samples.



Future Plans

1. Proficiency test with the international accredited laboratories
2. Quality Assurance through ISO/IEC 17025
3. Establish Regional Nuclear Forensics Laboratory to be the training center for ASEAN countries



*Thank you
for your attention.*