

**Discussion Summary of Working Group III**  
**Nuclear Science, Technology, Security, and Safeguards**  
 TECRO-AIT Meeting of the Joint Standing Committee on Civil Nuclear Cooperation  
 December 17-18, 2019

Number of items discussed	22
Closed items	1*
New items	1+1#
Moved items	0
Merged items	0
Number of working items after the meeting	23

\*To be confirmed by AIT

# To be confirmed by TECRO

**New items**

- **AE-IN-AIT-LA, "Enhancing The Quality of Material Declaration"**  
 (1) INER will review declarations and assess need  
 (2) At INER's request, TECRO will provide experts in April 2020 timeframe.
- **IN-TU-AIT-Y5, "Hybrid Energy Systems"**  
 AIT proposed a new item related to Hybrid Energy Systems, which need to be confirmed by TECRO.

**Highlights:**

- **AE-NR-D59, "Radiation Protection Training Program"**  
 (1) Nuclear facilities in Taiwan will soon be decommissioned in sequence in coming years. AEC would like to assign staffs to attend radiation characterization related training course, or visit the NPPs undergoing decommission process, to further improve the investigation and evaluation skills. AEC will appreciate if the US side could share the training information or help managing the visit  
 (2) NRC has some training courses related to NPP decommissioning and radiation protection, such as MARSSIM and MARSAME, etc, and some of them could be converted as online courses in 2020, when available. NRC will forward the information to AEC.
- **AE-IN-NR-D64, "Radiation Protection Technical and Regulatory Information Exchange"**  
 AIT and TECRO will seek future opportunities in 2020.
- **IN-OR-I7, "Production and Evaluation of Isotopes and New Radiopharmaceuticals."**  
 INER plans to participate in the Society of Nuclear Medicine and Molecular Imaging (SNMMI) 2020 Annual Meeting, June 13-16 in New Orleans, Louisiana.
- **IN-DE-I14, "Information Exchange of Certification, Quality Control and Licensing Procedure of Radiopharmaceutical."**  
 INER plans to participate in the Society of Nuclear Medicine and Molecular Imaging (SNMMI) 2020 Annual Meeting, June 13-16 in New Orleans, Louisiana.
- **IN-DE-I19, "Cooperative Programs on the Development and Improvement of Nuclear-Imaging Instrumentation Associated Technology."**  
 Propose to close this item, DOE will confirm this item.
- **TU-DE-Y3, "Explore opportunities related to DOE Engineering Innovation Hub for Modeling and Simulation Program."**  
 AIT and TECRO will seek future opportunities in 2020.
- **TU-DE-Y4, "Formation of New Partnership INL/NTHU/INER/NBL for Education and Training in Nuclear Science and Technology."**  
 INER is interested in the nuclear fuel performance code BISON developed at INL, and looking forward to use it in the related research program.
- **AE-NR-Z9, "Response and Management of Radioactive Material Events"**  
 AIT and TECRO will seek future opportunities in 2020.
- **TU-AN-CC1, "Neutron Research at Research Reactors and Spallation Sources."**  
 AIT and TECRO will seek future opportunities in 2020.
- **AE-DE-EE2, "International Training Course on Physical Protection."**  
 Limited activities.

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- **AE-DE-EE3, "Nuclear Export Control Training."**  
Propose to keep ongoing
- **AE-DE-EE5, "Radioactive source security cooperation."**
  - (1)NNSA will summarize the information of potential eligible in-device delay (IDD) kit with corresponding brand and model to AEC.
  - (2)After received the fit information, AEC will forward the information to relevant licensees.
- **AE-DE-EE6, "Physical Protection Consultations."**  
Agreed to keep ongoing.
- **AE-DE-EE7, "Training in Implementation of PP Standards and Guidance."**
  - (1)DOE/NNSA proposes to provide an engagement to a vulnerability assessment and TTX software Scribe3D for operating and/or decommissioning nuclear facilities.
  - (2)DOE/NNSA invites AEC to attend the Nuclear Security Exposition in Spring 2020.
  - (3)DOE/NNSA is open to additional opportunities for engagement as appropriate.
  - (4)AEC proposes DOE/NNSA to provide a workshop related to the Cyber Security Plan of a nuclear facility.
- **AE-AIT-FF1, "State Systems of Accounting and Control (SSAC)."**  
Propose to keep ongoing
- **AE-AIT-FF2, "Cooperation in Safeguards Technology."**
  - (1)IAEA performs verification of nuclear material for the stabilized product of TRR spent fuel pool sludge.
  - (2)INER would like to finish the stabilization of TRR spent fuel pool sludge.
  - (3)Continue discussions on dates and scope potential ISOCS expert visit to INER.
- **AE-AIT-FF3, "Exchange of Information on Implementation of IAEA Safeguards and the Additional Protocol."**  
Next safeguards information papers will be exchanged at JSCCNC.
- **AE-AIT-FF4, "Inventory of U.S. obligated nuclear material in Taiwan."**  
In May 2020, AEC will send TECRO the annual inventory report on all material subject to the current agreement for cooperation as well as individual inventory of Canadian, Australian, and EURATOM flagged materials of 2019.
- **TU-OR-HH1, "Design of Medical Therapy Facility for THOR."**  
AIT and TECRO will seek future opportunities in 2020.
- **RM-AIT-II 1, "Rapid analysis of radioactive Cesium level in sea water"**  
AEC welcomes further cooperation and advanced training in this area.
- **RM-DE-II 2, "Radioactive Krypton and Xenon analysis technology"**  
AEC welcomes further cooperation and advanced training in this area.
- **RM-XX-IIX, "Radiochemistry Analysis Method Proficiency Testing And Training"**  
AEC welcomes further cooperation and advanced training in this area.

Approved:



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Specialist, DOE/NNSA  
AIT Representative  
Date: 18 Dec 2019



Chien-Liang Shih, INER  
TECRO Representative  
Date: 18 Dec. 2019