

Discussion Summary of Working Group III
Nuclear Science, Technology, Security, and Safeguards
 TECRO-AIT Meeting of the Joint Standing Committee on Civil Nuclear Cooperation
 November 5-7, 2018

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| Number of items discussed | 21 |
| Closed items | 0 |
| New items | 1 |
| Moved items | 0 |
| Merged items | 0 |
| Number of working items after the meeting | 22 |

1. New items:

- **RM-XX-IIX**, AEC proposes to add a new item “Radiochemistry Analysis Method Proficiency Testing and Training” and AIT will attempt to consult with EPA on possibility of cooperation.

2. Highlights:

- **AE-NR-D59, “Radiation Protection Training Program”**
 Radiation protection related to public exposure and environmental impact, especially nuclear power plant decommissioning, there has been an increasing concern for the public. AEC propose this item to be kept ongoing, for further information/experience exchange in the future.
- **AE-IN-NR-D64, “Radiation Protection Technical and Regulatory Information Exchange”**
 AIT and TECRO will seek future opportunities in 2019.
- **IN-OR-I7, “Production and Evaluation of Isotopes and New Radiopharmaceuticals.”**
 (1) INER had submitted the IND application of ^{68}Ga -NOTA-HL to the FDA and was approved in Jan. 2018. The clinical trial will be initiated in late 2018 or in 2019.
 (2) INER seeks opportunities to have contact with the experts for further collaboration and to establish C-14 related radiolabeling, synthesis, and metabolite profiling techniques.
- **IN-DE-I14, “Information Exchange of Certification, Quality Control and Licensing Procedure of Radiopharmaceutical.”**
 INER will establish the long-term cooperative channel with experts and facilitate the development of radiopharmaceuticals.
- **IN-DE-I19, “Cooperative Programs on the Development and Improvement of Nuclear-Imaging Instrumentation Associated Technology.”**
 The short-term goal of this subject has been achieved. No planned activities for 2019 but keep open in the event assistance is needed.
- **TU-DE-Y3, “Explore opportunities related to DOE Engineering Innovation Hub for Modeling and Simulation Program.”**
 AIT and TECRO will seek future opportunities in 2019.
- **TU-DE-Y4, “Formation of New Partnership INL/NTHU/INER/NBL for Education and Training in Nuclear Science and Technology.”**
 FRAPCON/FRAPTRAN is in use at NTHU and the license will be submitted for renewal periodically.
- **AE-NR-Z9, “Response and Management of Radioactive Material Events”**
 AIT and TECRO will seek future opportunities in 2019.
- **TU-AN-CC1, “Neutron Research at Research Reactors and Spallation Sources.”**
 NTHU and other Taiwanese scientists will continue to pursue/submit proposals for beam time at the neutron facilities in US, doing neutron scattering experiments.
- **AE-DE-EE2, “International Training Course on Physical Protection.”**
 TECRO will send two representatives to attend ITC-28 in 2019.
- **AE-DE-EE3, “Nuclear Export Control Training.”**
 Under the sponsorship of the EXBS program of the Department of State (US), two events were

held in 2018. Workshop with Taiwan Customs on Customs Codes/Export Control List number correlation, use of trade data in risk assessment, and developing strategic community fingerprints will be held in January.

- **AE-DE-EE5, “Radioactive source security cooperation.”**
AEC and NNSA held the workshop on “Risk Reduction Strategies for the Security of Radioactive Cesium-137” in Taipei in 2018. AIT and TECRO will exchange information on Cesium irradiators in 2019.
- **AE-DE-EE6, “Physical Protection Consultations.”**
AIT and TECRO will consult on the possibility of scheduling physical protection visit during 2019.
- **AE-DE-EE7, “Training in Implementation of PP Standards and Guidance.”**
AEC appreciates DOE/NNSA sent three experts to conduct a Managing Cyber Risks training course in Taiwan. AEC proposes DOE/NNSA to provide a workshop related to Nuclear Security Table-top Exercise in 2019.
- **AE-AIT-FF1, “State Systems of Accounting and Control (SSAC).”**
TECRO plans to send two observers to attend SSAC course in 2019.
- **AE-AIT-FF2, “Cooperation in Safeguards Technology.”**
INER plans to complete the collection and stabilization of TRR spent fuel debris.
- **AE-AIT-FF3, “Exchange of Information on Implementation of IAEA Safeguards and the Additional Protocol.”**
Information on implementing safeguards will continue to be exchanged at JSCCNC 2019.
- **AE-AIT-FF4, “Inventory of U.S. obligated nuclear material in Taiwan.”**
TECRO will submit annual inventory report of all materials in 2019.
- **TU-OR-HH1, “Design of Medical Therapy Facility for THOR.”**
The 18th International Congress on Neutron Capture Therapy (ICNCT-18) was held in Taipei in 2018. NTHU welcomes information exchange and possible collaborations with researchers in US in 2019.
- **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 and the Office of Nuclear Incident Policy & Cooperation agree to hold a conference call to discuss opportunities for cooperation and engagement.

Approved:



Robert Rudich, DOE/NNSA
AIT Representative

Date: 11/6/2018



Jyh-Der Lin, INER
TECRO Representative

Date: 11/6/2018