Discussion Summary of Working Group III Nuclear Science, Technology, and Safeguards

TECRO-AIT Meeting of the Joint Standing Committee on Civil Nuclear Cooperation December 6-8, 2016

Number of items discussed	21	
Closed items	0	
New items	0	
Moved items	0	
Number of working items after the meeting	21	

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None

2. New items:

None

3. Moved items:

None.

4. Highlights:

- IN-OR-I7, "Production and Evaluation of Isotopes and New Radiopharmaceuticals."
 INER plans to apply for research projects to develop and establish the techniques of C-14 isotope labeling and synthesis for understanding of metabolism of new drug. INER seeks opportunities to have contact with the experts and have the training course to establish relative techniques.
- IN-OR-I14, "Information Exchange of Certification, Quality Control and Licensing Procedure of Radiopharmaceutical."

INER plans to apply for research projects to develop an affibody, a new radiopharmaceutical and technique for diagnosis and therapy of cancer. INER will continue contact with Dr. Jacek Capala in NIH/NCI.

- IN-DE-I19, "Cooperative Programs on the Development of Nuclear Imaging Instrumentation."

INER plans to apply for research projects to develop monitoring technologies of proton range to reduce the impact of range uncertainty on proton therapy, and collaborative mechanisms between local industry, research institutes, universities, and medical groups will be established. INER will contact Dr. Jacek Capala in NIH/NCI.

- TU-DE-Y1, "Generation IV Nuclear Reactors."
 - Agreed to keep the item open and pursue cooperation on advanced nuclear safety.
- TU-DE-Y3, "Explore opportunities related to DOE Engineering Innovation Hub for Modeling and Simulation Program."

NTHU would like to attend SAPHIRE user group training in 2017.

- TU-DE-Y4, "Formation of New Partnership INL/NTHU/INER/NBL for Education and Training in Nuclear Science and Technology."
 - (1) The renewal request of FRAPCON/FRAPTRAN will be submitted from NTHU in 2017. (2) INER and INL are pursuing a short-term visiting scientist assignment at INL to collaborate and research on post-irradiation examinations and hot cell management in 2017.
- TU-AN-CC1, "Neutron Research at Research Reactors."

NTHU will continue to pursue / submit proposals for beam time at research reactors and SNS.

AE-DE-EE2, "International Training Course on Physical Protection."
TECRO looks forward to continuing to attend the ITC-27 training course in 2018. AIT-TECRO will consult on the need for an additional invitation letter.

- AE-DE-EE3, "Nuclear Export Control Training."
 Agreed to keep ongoing pending discussion with Adam Hoffman
- AE-DE-EE5, "Radioactive source security cooperation."
 (1) NNSA will hold a training course on physical protection and security management (PPSM) in May 22-25, 2017 to take place at AEC headquarters in New Taipei city. (2) NNSA and AEC agree to coordinate and share information related to technological alternatives to high activity radiological sources
- AE-DE-EE7, "Training in Implementation of New PP Standards and Guidance."
 AIT agrees to conduct the Security Plan Workshop in Taiwan in 2017.
- AE-AIT-FF1, "State Systems of Accounting and Control (SSAC)."
 (1) TECRO looks forward to attending 2017 SSAC training course in ORNL. AIT-TECRO will consult on the need for an additional invitation letter. (2) TECRO will inquire with assistance from AIT on the possibility of holding the SSAC training course in Taiwan in 2018.
- AE-AIT-FF2, "Cooperation in Safeguards Technology."
 INER plans to complete the measurement of nuclear material in the spent fuel sludge in coordination with LANL.
- AE-AIT-FF3, "Exchange of Information on Implementation of IAEA Safeguards and Additional Protocol."
 - (1) Safeguards information papers will be exchanged through AIT-TECRO channels in Washington before the end of 2016. (2) Next exchange will be at JSCCNC 2017.
- **AE-AIT-FF4, "Inventory of U.S. obligated nuclear material in Taiwan."** TECRO will submit annual inventory report of all materials in May 2017.
- TU-OR-HH1, "Design of Medical Therapy Facility for THOR."

 NTHU will consider purchasing Li-6 if the price is reasonable. AIT will continue to inquire regarding prices of Li-6.

Approved:

Brian Abeyta, DOE/NNSA AIT Representative

Date: (2-17-16

Chung-Hsing Hu, INER TECRO Representative

Date: