FACT SHEET

U.S. Participation in the Nuclear Forensics International Technical Working Group

The United States and European Commission co-chair the Nuclear Forensics International Technical Working Group (ITWG), which is an informal, unaffiliated association of nuclear forensics practitioners from governments around the world. ITWG works to identify, develop, and promote best practices in the field of nuclear forensics by holding annual meetings, conducting exercises, and publishing guidelines. These efforts help strengthen national capabilities to investigate and prosecute illicit uses of nuclear and other radioactive material.

In addition to co-chairing ITWG, U.S. experts help lead several ITWG task groups including those on evidence collection, exercises, guidelines, training, and national nuclear forensic libraries (NNFLs). These efforts draw upon experts from several U.S. interagency partners, including the Department of Energy’s National Nuclear Security Administration and national laboratory complex, the Department of Homeland Security, Department of State, and the Federal Bureau of Investigation.

ITWG held its twentieth annual meeting June 2015 in Budapest, Hungary, and will hold its next annual meeting in Lyon, France in June 2016. The European Commission’s Joint Research Centre will host the 2017 annual meeting. Experts from more than 50 countries have participated in ITWG meetings since it was established in 1995.
ITWG completed its fourth collaborative material exercise March 2015, and it will initiate the next one in fall 2016. During these exercises, experts from laboratories around the world are asked to analyze nuclear material as part of a mock investigation and then later review the effectiveness of the various techniques employed. Lessons learned and techniques developed from these exercises have been published in peer-reviewed technical journals and used as the basis to develop ITWG guidelines. ITWG has prepared guidelines on the use of a variety of technical tools. The guidelines can be found on the ITWG website www.nf-itwg.org.

ITWG also conducts a U.S.-sponsored, web-based, virtual exercise series on NNFLs called Galaxy Serpent. An NNFL is an important nuclear security tool that helps a country determine if material found outside regulatory control is or is not consistent with material it produces, uses, or stores. In its national statement, the United States announced it now accepts NNFL queries from other governments. (More information on the query process is available on the Nuclear Security Summit website www.nss2016.org).

The United States and European Commission issued a joint statement at the 2016 Nuclear Security Summit regarding future ITWG efforts. Contributions by the United States to future ITWG efforts include:

- Continued co-chairmanship with the European Commission;
- Provision of experts to help lead task groups;
- Participation in ITWG collaborative material exercises, e.g. CMX-5;
- Provision of subject matter expert input to the development of new ITWG guidelines;
- Facilitation of future Galaxy Serpent exercises on national nuclear forensics libraries; and,
- Support for the participation of some foreign government experts in ITWG annual meetings and exercises.

Cooperation between governments is critical to addressing transnational threats involving nuclear and other radioactive material found outside regulatory control. U.S. collaboration with international nuclear forensics practitioners through ITWG has strengthened global nuclear security.