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Emerging Threats, Cybersecurity, and Science and Technology
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Good morning, Chairman Langevin, Ranking Member McCaul, and members of the Subcommittee. I am pleased to be here today to demonstrate the commitment of the Federal Bureau of Investigation (FBI) to strengthening our nation's ability to conduct effective technical nuclear forensics.

The number one priority of the FBI is to protect the nation from terrorist attacks. Within that priority, the Weapons of Mass Destruction (WMD) terrorist threat is clearly our most pressing concern. The FBI established the WMD Directorate in 2006 to bring together the units within the FBI that were addressing the response, investigation, intelligence dissemination and analysis and countermeasures programs into one unified structure. This unity of leadership has strengthened the FBI's ability to prevent a WMD terrorist attack significantly. Key to our prevention efforts is a strong forensic program that includes all aspects of WMD and traditional forensic expertise. Additionally, we at the FBI recognize that it is through interagency cooperation that the WMD terrorist threat is best addressed.

The FBI Laboratory Division is central to our support to Interagency efforts of the DOJ, DHS, DOE, DOD and members of the Intelligence Community (Interagency) in nuclear forensics. We view our Laboratory as the world's premiere forensics laboratory and are proud of the role it fulfills in preventing WMD terrorism and in responding to crimes when they occur.

The Laboratory's Hazardous Materials Response Unit (HMRU) provides the personnel, equipment, and know-how to effect the safe and secure collection and transport of radiological and nuclear materials and debris to an appropriate facility for analysis and characterization. These capabilities include the people who work at HMRU in Quantico, Virginia, and their gear, as well as those of 27 Hazardous Materials Response Teams (HMRTs) that are trained, equipped and certified by HMRU. These teams are located throughout the United States (US) with various FBI Field Divisions and provide over 400 personnel to augment our operational response capabilities.

HMRU also provides training on WMD Crime Scene Awareness so that our personnel will know how to properly enter, exit and work within any scene where biological pathogens, toxic chemicals and radiological or nuclear materials might be present. This training, which historically has been directed toward our own personnel, has recently been adapted to provide WMD crime scene awareness training for personnel from the Interagency. We are pleased to be offering the training beginning this fall to selected personnel from the Department of Homeland Security (DHS), Department of Defense (DOD), and Department of Energy (DOE). In keeping with the importance we attach to nuclear forensics, we have targeted those DHS, DOD, and DOE elements most directly involved in nuclear activities as the first priority to receive this training from the FBI.

No one agency has the necessary resources, experience and capabilities to solely perform technical WMD forensics. The Laboratory leverages the capabilities of the Interagency through the efforts of its Chemical Biological Science Unit (CBSU), an all-discipline WMD analysis unit. CBSU develops and maintains the Laboratory's ability to conduct and/or direct the forensic examination of evidence that either contains or is contaminated with hazardous chemical, biological or radiological material. To that end, CBSU has formalized partnerships with a variety of government, academic and private labs to carry out specific examinations of FBI evidence.

We have formal agreements in place with Savannah River National Laboratory (SRNL), Aiken, South Carolina for recovered radiological materials and detonated radiological dispersal devices (RDDs); with Lawrence Livermore National Laboratory (LLNL), Livermore, California, for recovered Special Nuclear Materials as well as intact improvised nuclear devices (INDs); and with the US Air Force Technical Applications Center (AFTAC) for debris resulting from the detonation of an IND.

In November 2006, we began operations at SRNL of the Radiological Evidence Analysis Laboratory Suite (REALS), which was stood up with our funds plus funding from DHS. REALS provides dedicated space at SRNL for our forensic examiners and technicians to perform selected activities, including the storage of evidence. The joint DHS/FBI funds also enabled us to begin planning and designing a unique set of fully functional forensic laboratory spaces that we refer to as the Radiological Evidence Examination Facility (REEF). Thanks to specifically-targeted Congressional funding received this past Fiscal Year (FY), we began renovations of existing space at SRNL to create REEF. It is projected to become fully functional in FY 2009, thereby allowing our Laboratory examiners and technicians to conduct a full range of traditional forensic examinations on evidence that is contaminated with nuclear materials.

The final pillar to our Laboratory's support for technical nuclear forensics speaks to our ability to conduct traditional forensics on radiological and nuclear materials – in other words, to perform the very forensic examinations for which the FBI Laboratory is so well-known. In this case, CBSU has also taken the lead, both domestically and internationally, by developing and implementing the Hazardous Evidence Analysis Team or HEAT program. That program responds to the altered operational dynamic that

prevails when we investigate a crime or suspicious event involving WMD. Normally, we transport evidence from a crime scene to the FBI Laboratory. For WMD crimes, though, we have made the conscious decision to refrain from transporting any such evidence to our Laboratory in Quantico until we can demonstrate that no residual WMD contamination exists.

But the needs of the investigation to process the evidence for traditional signatures of interest – such as latent fingerprints, human DNA analysis, and trace evidence – are immediate. To ensure we begin such traditional examinations promptly, we have flipped the dynamic, and we transport the examiners to the evidence at one of partner laboratories. The HEAT program takes our trained and qualified forensic examiners and technicians from across the Laboratory and provides additional training which allows them to operate in a WMD laboratory, such as in a hot cell for nuclear materials, a Biosafety Level 3 or 4 Suite for biological pathogens or a Chemical Surety Materiel laboratory for toxic chemicals. We certify our personnel through the HEAT program as qualified examiners and technicians in their discipline. We believe HEAT has been a success, with more than 60 examiners and technicians trained and certified, representing the various forensic disciplines in our Laboratory. Our examiners and technicians profit, gaining the confidence and skills needed to conduct their demanding tasks in an altered environment. The investigation is supported by ensuring we have a cadre of such trained and certified personnel who are ready to deploy immediately when the need arises. Through this training and certification process, we are learning what modifications, if any, are needed to conduct traditional forensic techniques when the work must be performed in a radiological or nuclear laboratory or, in the more general case, in any WMD laboratory, such as those of our partners with DHS at NBACC and with DOD at the Edgewood Chemical Biological Center. Again, as with our novel nuclear forensic examiner program, we are unaware of any program similar to HEAT with any of our international partners, but we are certainly anxious to share our experiences with them.

Thank you for time, I look forward to answering your questions.