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### **National Labs and Nuclear Emergency Response<sup>1</sup>**

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The DOE national laboratories, and in particular the three NNSA national security laboratories, have long supported a broad suite of national nuclear security missions for the U.S. government. The capabilities, infrastructure and base of expertise developed to support the U.S. nuclear weapons stockpile have been applied to such challenges as stemming nuclear proliferation, understanding the nuclear capabilities of adversaries, and assessing and countering nuclear threats including essential support to nuclear emergency response. This talk will discuss the programs that are underway at the laboratories and the essential role that science and technology plays therein. Nuclear scientists provide expertise, fundamental understanding of nuclear materials, processes and signatures, and tools and technologies to aid in the identification and mitigation of nuclear threats as well as consequence management. This talk will also discuss the importance of direct engagement with the response community, which helps to shape research priorities and to enable development of useful tools and techniques for responders working in the field.

<sup>1</sup>National Labs and Nuclear Emergency Response