Abstract Submitted
for the DNP13 Meeting of
The American Physical Society

The Fukushima Nuclear Disaster and the U.S. Customs and Border Protection Response[1] KATHY MCCORMICK, US Customs and Border Protection — On 3/11/11, the reactors at the Fukushima Nuclear Plant in Japan were damaged by a magnitude 9.0 earthquake. Of the six reactors at the site, three were in operation prior to the event, and were automatically shut-down during the earthquake. Emergency cooling systems came online and were subsequently destroyed by a tsunami generated by the earthquake. For the operating reactors, all the reactor cores were exposed, resulting in overheating and the release of steam and hydrogen gas to the containment vessels, several of which subsequently exploded, releasing radioactivity into the atmosphere. The cores of the operating reactors melted down, and radioactive water was released to the ocean in cooling efforts. The primary radiation concerns in the United States from the disaster were radioactive plumes driven by westerly winds and contaminated commercial products and travelers. In the United States, one of the primary governmental organizations to respond to the disaster was U.S. Customs and Border Protection (CBP), which has responsibility to oversee the safety and security of cargo and travelers entering the United States. This talk will describe the various types of radioactive commodities and events encountered by CBP in the U.S. from the Fukushima disaster.

[1]Thanks to the CBP Teleforensics Center for their assistance with this presentation.

Kathy McCormick
US Customs and Border Protection

Date submitted: 28 Jun 2013 Electronic form version 1.4