

## **2.1-P08. Development and Implementation of Simulated Radionuclide Debris for the 2014 Integrated Field Exercise**

The simulation of an event for the 2014 Integrated Field Exercise (IFE14) involved many aspects for consideration such as whether the event was CTBT compliant or non-compliant, the nature of the triggering event, as well as issues associated with implementation of the scenario. The IFE14 Scenario Team designed a scenario that took all of these issues, as well as others, into consideration. One of the important components of the scenario was how to best simulate the debris from a nuclear explosion that would be safe for all personnel involved with the exercise, challenge the Inspection Team, be cost effective, and test the equipment and procedures developed for on-site inspection. While the most realistic scenario might have involved the production of fission and activation products in a reactor followed by deposition onto and below the surface, a different but effective method using sealed low- and high-activity sources and contained radioactive noble gases was followed that met the goals of IFE14. This presentation will describe the radionuclide scenario and storyline associated with the radionuclide information, how the physical injects were devised, and implementation steps for the exercise.

**Primary author:** BOWYER, Theodore (Pacific Northwest National Laboratory)

**Presenter:** BOWYER, Theodore (Pacific Northwest National Laboratory)

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