CONCURRENT SESSION 6 – RADIOLOGICAL RESEARCH STUDIES SESSION

Decision Tool to Support Objectives, Strategies, and Tactics in a Radiological Mitigation and Recovery Event

Michael Kaminski | *Argonne National Laboratory*

Argonne National Laboratory is building and testing a computer tool that can be used during the response and recovery from a radiological or nuclear incident to effectively allocate appropriate commercial and public works equipment to mitigate, remove, contain, and monitor radiological contamination. Based on a report by Argonne, the tool's knowledge base is hierarchically structured with five top-level support goals, each containing several scenarios; subsequently, each scenario is tied to one or more recovery methods, and each recovery method is associated with one or more equipment types contained in this report. The tool, through an intelligent Wizard, facilitates the operator's discovery and consumption of these details most pertinent to a dynamically selected subset of goals. We will present a demonstration of the tool (Fig. 1) for a hypothetical use-case within a discussion-based exercise. We will summarize the five support goals contained within the tool, introduce several scenarios within each, and show how the tool's wizard suggests various recovery methods along with the associated municipal and commercial equipment and data to support their proper use. In all, this presentation will familiarize the audience on the decision support tool's overall versatility and breadth to which it can support objectives, strategies, and tactics not only for nuclear and radiological releases, but also chemical and biological threat agents.