

Telepath™—Automated Radiation Mapping System

Background

Creation of radiation surveys at nuclear power plants currently relies on labor-intensive data collection and dissemination to plant workers. This results in radiation exposure to radiation technicians performing the surveys. Also, these surveys are taken at discrete points in time and may not remain accurate as radiological conditions change (e.g., during refueling outages or decommissioning activities).

Description

DEI's Telepath™ system is an innovative software and hardware platform that utilizes the plant's existing teledosimetry system, along with location tracking devices worn by individual workers to passively "crowdsource" radiation maps as plant staff perform their normal work activities. The Telepath software then aggregates and presents the data in an intuitive interface for guiding work activities and post-work diagnostics.

This passive approach reduces the cost, labor and exposure associated with generating routine radiation surveys. Frequency-based surveys may also be eliminated through continuous monitoring using the Telepath™ system.



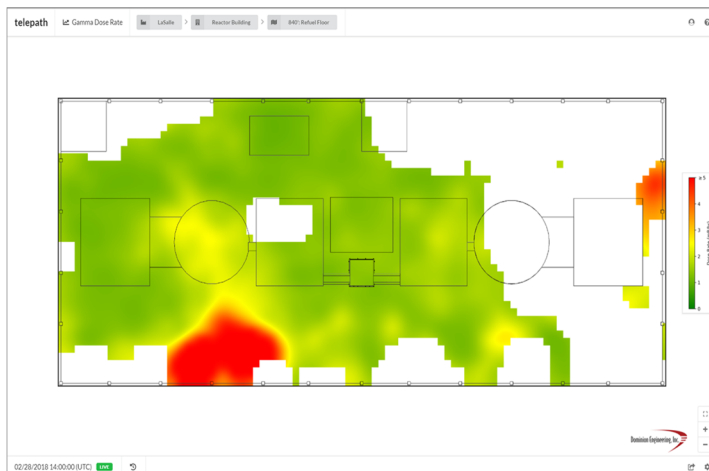
Worker donning Telepath™ tracking device

Key Features

- High fidelity, real time radiation maps passively generated using devices worn by individual plant workers
- Pairs with plant's existing teledosimetry system
- Intuitive software interface available at work locations, including for mobile devices
- Instant notification of changing radiological conditions

Industry Experience & Benefits

- Successfully deployed in PWR and BWR environments (refuel floor, containment, etc.)
- Reduced cost, labor and exposure through passive generation and transmission of radiation survey maps
- Elimination of frequency-based surveys through continuous monitoring
- Automatic reporting and diagnostics of RWP-specific and general exposure trends



Telepath™ radiation map and user interface