



**Thermo Scientific RadEye
Selection Guide for Nuclear Power**



Maximizing safety
and productivity



**Innovative
Industrial Solutions**

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Thermo Scientific RadEye

Radiation Detection Instruments

Our comprehensive range of advanced radiation detection instruments deliver effective solutions for a wide variety of operations within your Nuclear facility.

Addressing traditional nuclear power health physics challenges, our rugged, reliable and lightweight radiation survey meter offerings can be configured for a wide variety of applications. A common and highly intuitive user interface is the cornerstone to rapid adoption and wide-spread use.


effective solutions

Radiation Controlled Area/Contamination Check Point


Current Challenges	Model to Solve	Benefits
Multiple large and cumbersome meters needed for monitoring different types of radiation	RadEye B20	RadEye B20 monitors alpha, beta and gamma from one compact device
Multiple pieces (meters, cables, detectors) needed increases inventory and added areas of failure	RadEye B20	Self-contained, single piece unit
Both hands required with traditional meters - heavy and awkward	RadEye B20	One handed, easy operation
Probes are specific to instrument	RadEye GX	Customers can use existing inventory of Thermo Scientific or 3rd-party probes



RP Supervisor and/or Operator Personal Dose Rate Device for Rounds

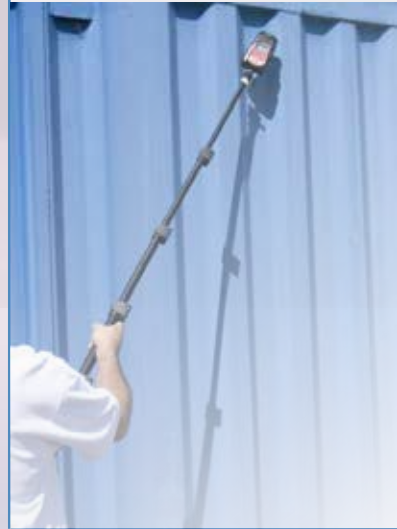
Current Challenges	Model to Solve	Benefits
Discrete dose rate monitoring of ambient dose rates without needing to hand carry a meter	RadEye G 	Offers dose rate readings in a pager-sized package that fits on belt or in your pocket

Gamma Isotopic Identification


Current Challenges	Model to Solve	Benefits
<p>Time consuming steps needed to identify actual isotope present in survey result; sample gathering and Counting lab-based counting required.</p> <p>Time wasted scanning non-threatening natural sources.</p> <p>Quickly identify contamination alarms and identifying the type of radiation to determine source term.</p> <p>Rapidly identify sources causing check points to alarm - sort through to determine which is a non-natural threat.</p> <p>Rapidly identify source of unknown item</p>	RadEye SPRD 	Immediately identifies the isotope present allowing you to quickly act accordingly. Value of this product is time. Assessment can be done in minutes instead of hours. Also, allow free release of items due to naturally occurring background whereas otherwise, item would be confiscated

Rad Waste and Material Shipping Surveys

Current Challenges	Model to Solve	Benefits
Surveying packages and/or transportation vehicles require multiple devices taken to the field to survey for multiple types of radiation	RadEye B20, RadEye G and RadEyeG with extendable pole, RadEye SX (alpha/beta monitoring)	One lightweight device can measure multiple types of radiation



Neutron Surveys at Reactor Power

Current Challenges	Model to Solve	Benefits
Large and heavy Rem Ball and meter are difficult to manage	RadEye NL with moderator	Significantly smaller and lightweight (less than 8lbs) instrument that delivers as accurate and reproducible readings
Traditional neutron survey instruments involve time consuming pre-op calibrations and check outs		Simpler and faster check-out process ensures less time required to prepare for field use and fewer instruments needed in inventory

shown here with moderator



Neutron Surveys for On-site, Dry Fuel Storage



Current Challenges	Model to Solve	Benefits
Neutron Dose Rate readings can be energy dependent; there are different calibration factors needed depending on neutron energy in location that you are monitoring	RadEye NL with moderator	RadEye NL allows you to store multiple calibration constants for varying neutron energies; easy to change in field if necessary

Emergency Planning Field Kits

Current Challenges	Model to Solve	Benefits
Multiple instruments required to monitor different types of radiation during an emergency training scenario or real life Radiological accident.	RadEye SX, RadEyeG and RadEye B20	Fewer hand-held devices can replace large inventory of instruments required. Minimize prep and ownership costs



Field Contamination alpha/beta Counting

Current Challenges	Model to Solve	Benefits
The length of time it takes to gather and analyze samples. Field measurements, contamination smears take time to gather and return to lab to be analyzed to reach final reading	 RadEye HEC	Delivers counting room accuracy in small hand held device that can be used anywhere
Need to upgrade all your probes in order to upgrade your meters to latest technology and functional offerings (data logging, telemetry)	 RadEye SX, GX, PX series	Modern, digital state of the art meter can be used with existing inventory of Thermo Scientific or 3rd party probes



Fast, autonomous, reliable radiation identification

With multiple configurations available, Thermo Scientific RadHalo™ Spectroscopic Area Monitors can adapt to any application, from special event monitoring to rapid response for a nuclear power plant accident.



Extensive, reliable services across the lifecycle of nuclear power plants

With more than 55 years of experience providing products and services to the nuclear power industry, we provide the experience to help you meet your business goals of plant reliability and equipment uptime. From installation and certification services to preventative maintenance, technical support, training, spare parts and global support capabilities, we provide a wide variety of integrated solutions and instrument upgrade packages to maximize your nuclear power plant performance.



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