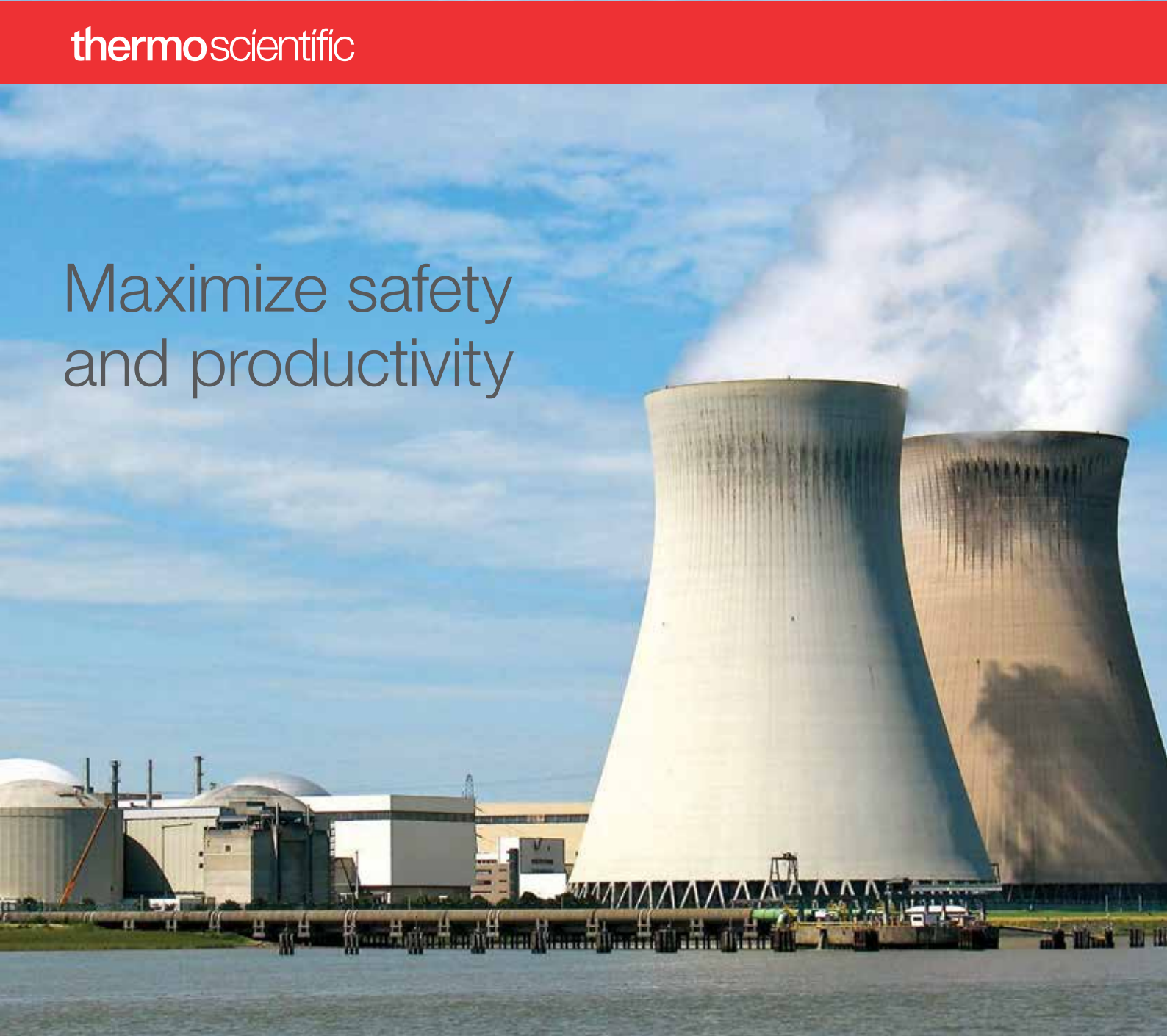


Maximize safety
and productivity



Thermo Scientific RadEye
Selection Guide for Nuclear Power



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 checkpoint

Current Challenges	Model to Solve	Benefits
<p>Multiple large and cumbersome meters needed for monitoring different types of radiation.</p>	<p>Thermo Scientific™ RadEye™ B20 ER Multi-Purpose Survey meters</p> 	<p>RadEye B20 ER monitors alpha, beta and gamma from one compact device. It also detects alpha, beta and gamma and doubles as a dose rate monitor when used with optional, field added, filters.</p>
<p>Multiple pieces (meters, cables, detectors) needed increases inventory and added areas of failure.</p>	<p>RadEye B20ER</p>	 <p>Self-contained, single piece unit.</p>
<p>Both hands required with traditional meters - heavy and awkward.</p>	<p>RadEye B20ER</p>	<p>One handed, easy operation.</p>
<p>Probes are specific to instrument.</p>	<p>Thermo Scientific RadEye X Series Survey Meters</p> 	<p>Customers can use existing inventory of Thermo Scientific or 3rd-party probes.</p>

RP supervisor and/or personal dose rate device for rounds/routine surveys

Current Challenges	Model to Solve	Benefits
<p>Discrete dose rate monitoring of ambient dose rates without needing to hand carry a meter.</p>	<p>Thermo Scientific RadEye G Personal Dose Rate Meters.</p>	<p>Offers gamma dose rate readings in a pager-sized package that fits on belt or in your pocket and is intrinsically safe.</p>





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 nonthreatening natural sources.</p> <p>Quickly identify sources causing alarms</p> <p>Rapidly identify gamma sources causing check screening points to alarm.</p> <p>Immediately determine if source is natural or man made.</p>	<p>Thermo Scientific RadEye SPRD-H Spectroscopic Radiation Detector.</p>	<p>Immediately identifies the isotope present allowing you to quickly act accordingly. Value of this product is time.</p> <p>Assesment can be done in minutes instead of hours.</p> <p>Also, allow free release of items due to naturally occurring background whereas otherwise, item would be confiscated.</p>



Rad waste and material shipping surveys

Current Challenges	Model to Solve	Benefits
<p>Surveying packages and/or transportation vehicles require multiple devices taken to the field to survey for multiple types of radiation.</p> 	<p>Thermo Scientific RadEye B20 ER, RadEye G and RadEye G Multi-purpose Survey Meter with extendable pole, Thermo Scientific RadEye SX (alpha/beta monitoring) RadEye PRD and RadEye SPRD.</p>	<p>One lightweight device can measure multiple types of radiation.</p> 



In the Spotlight: Constant Monitoring

Every nuclear power plant regularly monitors areas of high concern. Most are performed with portable equipment on routine surveys. However, routine surveys require workers to perform the tasks as well as be potentially exposing them to harmful radiation doses. By using the RadEye area monitor kit, a local, constant monitoring solution can be remotely viewed. Designed to work with most RadEye models, users can setup a network of monitors, saving time, money and improving worker ALARA. When needed for precise surveys, the RadEye can be removed from the monitor and used as required.

Neutron surveys at reactor power

Current Challenges	Model to Solve	Benefits
Large and heavy Rem Ball and meter are difficult to manage.	Thermo Scientific RadEye NL Personal Highly Sensitive Neutron Radiation Detector 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.	Thermo Scientific RadEye NL with moderator.	Simpler and faster check-out process ensures less time required to prepare for field use and fewer instruments needed in inventory.




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
<p>Multiple instruments required to monitor different types of radiation during an emergency training scenario or real life Radiological accident.</p>	<p>RadEye SX, RadEye G and RadEye B20 ER.</p>	<p>Fewer hand-held devices can replace large inventory of instruments required. Minimize prep and ownership costs.</p> 

Field contamination alpha/beta counting

Current Challenges	Model to Solve	Benefits
<p>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.</p>	<p>Thermo Scientific RadEye HEC Stand-alone Scale Counter.</p> 	<p>Delivers counting room accuracy in small hand held device that can be used anywhere.</p>
<p>Need to upgrade all your probes in order to upgrade your meters to latest technology and functional offerings (data logging, telemetry).</p>	<p>RadEye SX, GX, PX series.</p> 	<p>Modern, digital state of the art meter can be used with existing inventory of Thermo Scientific or 3rd party probes.</p>

Solutions For Any Scenario



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.

Learn more at thermofisher.com/radhalo



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.

Learn more at thermofisher.com/radsafe

Find out more at thermofisher.com/nuclearpower

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