

## NBR Natural Background Rejection Application Technology Snapshot



What can  
Natural Background  
Rejection (NBR)  
technology do for me?

# QA

- Reduce the number of false alarms
- Better detect low levels of artificial radiation such as hidden or shielded sources

NBR is a technology used to eliminate fluctuating natural background levels while measuring radiation. This proprietary and patented technology is used to quickly differentiate between natural and artificial radiation by stripping away any natural background radiation that is registering, delivering you a more accurate result of artificial radiation levels.

Operators using instruments without NBR often set their alarm thresholds higher to eliminate the nuisances of false alarms or ignore alarms due to their frequency potentially missing out on hidden or shielded sources. Using an instrument with NBR allows you to keep your alarm threshold extremely low without the need to worry about false alarms from non-threatening sources so when the alarm goes off, you know it is time to take action.

By delivering a more accurate result, first responders and those responsible for identifying potential threats will be more confident and efficient in knowing when the threat is real.

Radioactive material is commonly found throughout nature in air, water, soil, rocks and plants. The amount of natural radiation you are exposed to fluctuates depending on your activity and location.

We refer to this as background radiation and the varying levels of it can cause false alarms when trying to determine if the high radiation levels you may be detecting on your radiation measurement and detection device have identified a potential threat.

### Natural Background Rejection Scenario

*Driving down highway through mountains and past artificial source without NBR*

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| <ul style="list-style-type: none"> <li>• Higher threshold for alarm</li> <li>• Numerous alarms</li> <li>• Most due to natural radiation</li> <li>• Nuisance for operator, may ignore</li> </ul> | <ul style="list-style-type: none"> <li>• Lower threshold for alarm</li> <li>• No false alarms</li> <li>• Only alerts to artificial sources</li> <li>• Operator knows to act</li> </ul> |
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