innovation in Radiation Monitor design

Container Waste Monitor

NGE-187

Neutron-Gram Estimator 1.5 ft³ container monitor

Description

TSA's model NGE-187 scans small containers in its chamber for radioactive contamination and provides neutron monitoring which detects shielded SNM.

Plastic scintillation detectors are mounted on all six sides of the counting chamber to provide uniform measurement throughout the chamber. The monitor's high sensitivity is achieved by using these surface area plastic detectors coupled with prevalent microprocessor controlled electronics and sophisticated software algorithms. There are also four neutron tubes located in the top, bottom, right, and left sides. An optional stainless steel liner protects the detector from the contaminated material being monitored.

Operation is made simple by using a touch screen for system control and a color monitor with an easy to read graphics display to provide instant reporting of system status and operating mode. Operator menus and error messages are clearly displayed.

The NGE-187's electronics are conveniently located above the chamber to allow easy access for calibration and repair.

Specifications

Model NGE-187 SPECIFICATIONS

- DETECTORS: Four, 2" diameter x 12" (5 x 30cm) He^3 neutron detector tubes per system, 4 ATM
- DISPLAY: Alphanumeric LCD, 2 lines x 40 characters, with backlight; red, amber and green LEDs indicate status
- POWER REQUIREMENTS: 102 Vac, 60 Hz, less than 360 VA
- SCAN TIME: 1 to 32,500 seconds, user programmable
- BACKGROUND TIME: 10 to 32,500 seconds, user programmable
- DIMENSIONS: External: 51"h x 31"w x 31"d (130x 79 x 79cm)
  Internal Cavity: 12"h x 12"w x 18"d (30 x 30 x 46cm)
  Volume: ≈1.5 ft^3 (42 liters)
- WEIGHT: ≈800 lb (363kg)
- ENVIRONMENTAL: Operating: 32° to 100°F (0° to 38°C)
  Storage: 0° to 120°F (-18° to 49°C)
- OPTIONAL COMPONENTS: Stainless steel liner, casters

Applications

TSA's NGE-187 waste monitor is used to scan small containers (less than 1.5 ft^3), for radioactive contamination and provides neutron monitoring which detects shielded SNM.

The NGE-187 features high sensitivity and reliable operation in variable background environments.