



BNC Domestic and International Safeguards Applications

The need for fast, accurate, and easy identification of radionuclides is a primary goal for Safeguards applications. The performance of portable Instrumentation is especially important in programs targeting Illicit Trafficking (nuclear smuggling). These 'second line of defence' directives require fast, sensitive, and positive radionuclide identification at pinch points. The Model 935 from Berkeley Nucleonics achieves this goal because of new technology applied to NaI spectroscopy.



935 Battery Powered Nuclear Detection System

Even though the Model 935 is a sophisticated MCA, the normal mode is extremely easy to use and provides quick identification and quantification.

A large library containing isotopes of Industrial, Medical, and SNM can be quickly identified with negligible false triggers (excellent results have been obtained this past year in evaluations at LANL, LLNL, and other laboratories).

Non-technical personnel involved in many applications will appreciate the ease of using the Model 935. A display labels the identified isotope, indicates intensity, and category (industrial, medical and SNM). With the right user password, the experienced technical user can have all the sophistication of an MCA with quantitative analysis.

New Technology: 'QCC' or Quadratic Compression Conversion is a patented technique which enhances the statistical process that allows fast and accurate nuclide identification. This is noted by the uniform peak widths across the NaI spectrum. This method provides a correction for the channel/energy fit to enhance the peak detection algorithm. This process was awarded the 1998 American Museum of Science and Energy Award for 'Technical Achievement'.



Real-Time ID of Moving Sources

- ▼ SAM Expandable Library Contains 95 Nuclides!
- ▼ Easy Operating System
- ▼ Real-Time ID of Mixed Sources
- ▼ Gamma and Neutron Detectors
- ▼ High Background Operation (gamma or x-ray)
- ▼ Print MCA Report Direct (no PC required)



PEAKS FOUND							
CHN	ENERGY (keV)	GROSS CPM	AMBIENT CPM	CONTINUUM CPM	NET CPM	UNC %	
18	24.0	5501	58	2259	3183 ± 8.93		Am241
34	59.5	19261	264	3388	15608 ± 3.41		Am241
78	226.0	7716	396	4841	2479 ± 13.6		
188	1171.1	13232	14	2097	11119 ± 3.96		Co60
201	1333.3	9828	14	1129	8684 ± 4.37		Co60

Remarkable Energy Range 15 keV - 3 MeV (note the Am241 spectrum showing both low energy lines)

See why the Model 935 represents the next era in radionuclide surveillance, analysis and identification.