



Ludlum Application Note for “Brac Point” Monitor

Ludlum has designed an instrument package to meet a requirement in the Nuclear Power Plant community where another product has been discontinued.

The old discontinued Eberline HP-220A was used for “Brac Point” surveys in the drywell of Boiling Water Reactors. Contact readings on the recirculation piping are used for comparison purposes in the fleet of BWR’s. This required exposure rate readings using an energy-compensated GM detector coupled with shielding to give a directional reading while subtracting out most of the ambient gamma background.



Ludlum’s new Model 44-183 accomplishes this task. The Model 44-183 uses a halogen-quenched, energy-compensated GM detector inside a lead shield. All external surfaces of the shield are painted and include an aluminum handle and front plate. This detector, with a front to back shielding ratio of 10:1, can be coupled with either of two survey meters, the Model 3 or the Model 2241 (see below). More information on the Model 44-183 is available at <http://www.deqtech.com/Ludlum/Products/model44-183.htm>.

The Model 3 allows a dynamic range up to 2 R/h using an analog display. A light option was also requested due to the survey’s being conducted in low-light environments. A special meter face, 202-980, was developed to specifically cover the range up to 2 R/h. More information on the Model 3 is available at <http://www.deqtech.com/Ludlum/Products/model3.htm>.



The Model 44-183 with Ludlum’s Model 2241, with dead time compensation, allows a dynamic range up to 10 R/h and has a digital display and scaler capability. A backlight is built into the Model 2241. More information on the Model 2241 is available at <http://www.deqtech.com/Ludlum/Products/model2241.htm>.



An extensive evaluation by two BWR’s in the Southeastern U.S. have produced excellent results with one location purchasing the Model 3-based survey monitor and the other buying the Model 2241 based monitor.

Specific details on the Model 44-183 and the two different survey meter packages are available on request. For more information and/or a price quotation, please contact one of your Ludlum representatives.