

Radiation Monitor for Water and Effluent Discharge

Real-Time Continuous

Model - NEX-Beta

NUCLIDE	BETA ENERGY	SECONDARY BETA
Sr-89	1,481 KeV	
Sr-90	546 KeV	
Y-90	2270 KeV	
Mo-90	1230 KeV	
Tc-99	292 KeV	
I-131	606 KeV	
Cs-134	662 KeV	
Cs-136	341 KeV	650 KeV 7%
Cs-137	514 KeV	1176 KeV 7%

Many labs, universities, hospitals, government and pharmaceutical facilities handle some liquid radioactivity. Some portion of this is collected as radioactive waste and sent for storage or burial. But a significant portion goes down the drain directly or into short term storage tanks. More and more of this is being seen as a hazard by regulators or community members.

The solution is for the various facilities to quantitate these materials to make sure the liquid effluent or waste water is being disposed of into the correct flow path.

Technical Associates Models, the **NEX-BETA** and **NEX-BETA-ABG**, are designed especially for this purpose of quantitating waste water and liquid effluent.

Problem

Drinking water sources are vulnerable to accidental or knowing contamination by individuals, groups, industry, medical labs, terrorists, and from naturally occurring radioactive materials (NORM). As yet very few water districts have real-time radiation monitors in place to protect the water and the public.

Solution

The **Continuous Real-Time radiation water monitor** the Model **NEX-BETA** solves this problem by continuously monitoring the water using ultra-sensitive, Beta radiation detector.


The information from this detector is analyzed and displayed in units of picoCuries per liter. The count times are user settable and calculations are automatically updated every 2 minutes, every hour and every day. Measurements of radiation concentration and total discharge are logged 24 hours/day, 7 days/week.

The longer update times correspond with greater precision and increased sensitivity. Sensitivities in the daily updates each meet or exceed the DHS Protective Action Guideline Levels (PAG) for drinking water. Please see attached chart of measurements.

Using TA Tried and True sample collection and measurement technology this detector measures Beta emissions from any radioactive liquids.



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