ABSTRACT AND TITLE FOR THE 42nd BIOASSAY CONFERENCE

Sr^{90}/Y^{90} in 1L Milk Samples Using Ammonium EDTA/Strong Acid Ion Exchange Resin Separation and a Tri-Carb 2770TR/SL Low Level Liquid Scintillation Analyser

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In order to satisfactorily meet our commitments to public health and emergency response in a climate of increasing fiscal restraint, we have begun a program of developing and adapting streamlined, simplified methods of radiochemical analysis. Our emergency response mandate leads us to developing simple methods capable of providing an error free, rapid response. Our environmental health mandate requires that we are able to develop and perform radiochemical assays with very low minimum detectable activities.

This paper reports our experience to date in applying the classical Ammonium EDTA/Strong Acid Ion Exchange Resin separation of alkali and alkaline earths to determining Sr^{90}/Y^{90} in 1L milk samples. This method has the advantages of being simple, of having greater than 95% chemical yield, of being adaptable to processing many samples in parallel, and of having good potential for automation on an instrumental Ion Chromatography unit.