The table below provides scaled leak test results for the prototype sources described in safety review applications INIS-022309 and INIS-022409. Leak test results obtained on 08/09/2005 have been scaled to account for the difference in tested source activity and maximum source activity. The methodology used to determine the scaled activity is considered conservative in that actual gross count rate results are scaled before background correction is applied. In all cases the scaled leak test results were below 5 nCi.

		Iı	nstrument Da	ata			
Instrument	Serial No.	Cal. Due	Efficiency	Background Count Rate R _b (cpm)	Sample Count Time t _s (min)	Background Count Time t _b (min)	MDA (pCi)
Ludlum 2000 ⁽¹⁾	87556	4/25/06	20%	60.9	1	10	67.3
Ludlum 2000 ⁽²⁾	99223	5/24/06	20%	47.1	1	10	60.0
Ludlum 2200 ⁽³⁾	195299	6/20/06	20%	45.7	1	10	59.2
The state of the s	MDA =	$= \{3 + 3.29 \text{ (I)}\}$	R _b t _o (1+(t _o /t _b))	1/2]}/{Effic	iencv x 1	t _e }	

Prototype: 99.0 uCi BM10 Pen point Marker,

(Application for Safety Review INIS 022409 - Model BM10 Series)

Scaled Test Results (Instrument used - Ludlum 2200 Serial Number 195299)
Scaling factor of 10.1 used, derived from Maximum authorized activity ÷ Tested Activity (1.0 mCi ÷ 99 uCi)

• • • • • • • • • • • • • • • • • • • •							
Test	Gross Count Rate (cpm)	Corrected Gross Count Rate (cpm)	Corrected Net Count Rate (cpm)	Scaled Activity (nCi)	Leak Test	Calculated By	
Low Temp:	42	424.2	378.5	0.85	PASS	John Miller - 5/28/09	
High Temp:	48	484.8	439.1	0.99	PASS	John Miller - 5/28/09	
External Pressure:	40	404.0	358.3	0.81	PASS	John Miller - 5/28/09	
Impact:	46	464.6	418.9	0.94	PASS	John Miller - 5/28/09	
Pressure:	52	525.3	479.6	1.08	PASS	John Miller - 5/28/09	

Prototype: 1.0 mCi BMNT Cylinder Source

(Application for Safety Review INIS 022309 - BMNT & BMCY)

Scaled Test Results (Instrument used - Ludlum 2200 Serial Number 195299)
Scaling factor of 12 used, derived from Maximum authorized activity ÷ Tested Activity (12.0 mCi ÷ 1.0 mCi)

Test	Gross Count Rate (cpm)	Corrected Gross Count Rate (cpm)	Corrected Net Count Rate (cpm)	Scaled Activity (nCi)	Leak Test	Calculated By
Low Temp:	42	540.0	494.3	1.11	PASS	John Miller - 5/28/09
High Temp:	48	540.0	494.3	1.11	PASS	John Miller - 5/28/09
External Pressure:	40	624.0	578.3	1.30	PASS	John Miller - 5/28/09
Impact:	46	696.0	650.3	1.46	PASS	John Miller - 5/28/09
Pressure:	52	624.0	578.3	1.30	PASS	John Miller - 5/28/09

Signature

5/28/09

Date