8/4/00

Gap Release Consequences

Case	Inventories	Rel. Fractions NG	I/Cs/Ru	Te	Sr	Ba	Ce/La
61a	1 yr	1	.03	.03	.03	.03	3×10^{-5}
61b	"	.03	.03	.03	.03	.03	3×10^{-5}
61c	"	.03	.01	.01	.01	.01	3×10^{-5}
61d	"	.03	2×10^{-4}	2×10^{-4}	2×10^{-4}	2×10^{-4}	3×10^{-5}
62a	5 yr						
62b	"						
62c	"		(Same pattern)				
62d	"						

6/4
#2

Start with Case 61a ⇒

atmos 46 h → atmos 61a

atmos 61a
early 695
chrncl_n
SURSIT
METSUR
} 61a

61b
61c
61d

Now, use EXCEL to calculate inventories at 5 years.

Start with COREINV1.XLS
Copy it to COREINV3.XLS.

Check my spreadsheet for $t = 5$ years (Co-60 is 7.92×10^{15} Bq) ✓

$$\text{Co-60 (5 years)} = \text{Co-60 (1 year)} \cdot e^{-\lambda t}$$

$$= 1.34 \times 10^{16}\ \text{Bq} \cdot e^{-\frac{.693}{5.3\ \text{yr}}(5\ \text{yr} - 1\ \text{yr})}$$

$$= 7.94 \times 10^{15}\ \text{Bq}$$ ✓