5/13/99

1. 'ERL FAT/TOTAL' 1 25 (0 TO 500 MILES)
'ERL FAT/TOTAL' 1 21 (0 TO 100 MILES)

TYPE 1 OUT 029
TYPE 1 OUT 030

~~TYPE 1 NUMBER 30~~

TYPE 1 OUT 032 'CAN FAT/TOTAL' 1 25 (0 TO 500 MILES)

TYPE 1 OUT 031 'CAN FAT/TOTAL' 1 21 (0 TO 100 MILES)

TYPE 1 NUMBER 32

TYPE 5 NUMBER 5

TYPE 5 OUT 004 'L-EDEWBODY' 1 21 (0 TO 100 MILES)
TYPE 5 OUT 005 'L-EDEWBODY' 1 25 (0 TO 500 MILES)

Change EARLY1.INP to report results at 100 miles and 500 miles

EARLY2.INP
atmos6a.inp
chrnc1_n.inp
METSUR.INP
SURSIT.INP

1.OUT
(at1.wpd)

CJO

2. Change to 100 persons/mile^2

$$100 \frac{\text{persons}}{\text{mile}^2} \cdot \frac{1\ \text{mile}^2}{2.59\ \text{km}^2} = 38.61 \frac{\text{people}}{\text{km}^2}$$

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POPFLG    UNIFORM
IBEGIN    1
POPDEN    38.61    (100 PEOPLE PER SQUARE MILE)
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EARLY 3. INP
atmos 6a. inp
chrnc 1_n. inp
METSUR. INP
" "

2.OUT

3. Put the rest of the core into the spent fuel pool

Millstone 1 580 assemblies in core
173 assemblies in a discharge batch

Steps

1. Decay core to 5/1/87
2. Subtract spent fuel batch 11 on 5/1/87 to get activity in remaining 2/3 core on 5/1/87
3. Decay activity in remaining 2/3 core to 7/1/87 and 4/1/88
4. Add activity in remaining 2/3 core to 30, 90, 365 day spent fuel pool activities

30 day inventories ⇒ atmos7b.inp
early3.inp
chrnel n.inp
METSUR.INP
" " } 7b.out

90 day inventories ⇒ atmos7c.inp } 7c.out

1 year inventories ⇒ atmos7d.inp } 7d.out

Also, I checked the inventories in atmos 7b, 7c, and 7d against my excel spreadsheet of 5/14/99.

4. Start FP release at 5 hours.
Start Evacuation at 2 hours

In "default" timing, evacuation started at 2.4 hours and FP release started at 1 hour.

⟹ Keep evacuation starting at 2.4 hours, but change FP release start time to 5.4 hours.

Evacuation starts at 8500 sec
FP release will start at 8500 sec + 3 × 3600 sec
= 19,300 sec.

⟹ change PDELAY to 19,300 sec (in early)

atmos 8b.inp
early4.inp (same as early3.inp)
chrnc1_n.inp
METSUR.INP
" "
} 8B.OUT

atmos 8c.inp → 8c.out
atmos 8d.inp → 8d.out

5. Change release fractions for La and Ce from 1×10^{-6} to 6×10^{-6}.

atmos 9b.inp
early 4.inp
chpncl_n.inp
METSUR.INP
" "

} 9b.out

atmos 9c.inp → 9c.out
atmos 9d.inp → 9d.out

6. Change fraction evacuating from .95 to .995

Change (in early)

1st EZWTFRAC001 from .95 to .995

2nd EZWTFRAC001 from .05 to .005

atmos 8b.inp
early 5.inp
chrnc1_n.inp
METSUR.INP
" "

} 10b.out

atmos 8c.inp
early 5.inp
chrnc1_n.inp
METSUR.INP
" "

} 10c.out

atmos 8d.inp
early 5.inp
chrnc1_n.inp
METSUR.INP
" "

} 10d.out