

8/17/99

My in CT+NR or

SFP accidents:

Diane Jackson:
Heavy loads
Seismic

Rich Barron:
 $R = CDF \times CCFP \times C = LEFF \times C$

$\Delta R = \Delta CDF$

$\Delta R = \Delta LEFF$

$R = LEFF \times C$

$\Delta R = \Delta LEFF \times C + LEFF \times \Delta C$

Long Early Release
10⁷ person in
10 latent fatalities
10 Early fatalities

$\Delta LEFF = 10^{-6} \frac{1x}{yr}$
15 OK

$\Delta R = 10$ person per 1x yr
15 OK
1 latent fat/1x yr
15 OK
10⁻⁵ early fat/1x yr
15 OK

8/14

F. Balliet said this number is causing us trouble.

$$\Delta P = L E F F \times \Delta C = 10^{-5} / \text{yr} \times \Delta C$$

LEFF for spent fuel pool is currently $10^{-5}/\text{yr}$

400,000 gal in the pool

2000 gpm leak
120,000 gal/hr leak

Catastrophic failure vs. long-term leak-off

• Lose a foot of water per hour

as 1 yr

WEP (Case 4)

5 x 10⁶ rem
2500 curies
13 curies/hr

WEP (Case 5)

5 x 10⁶ rem
2200 curies
1 curies/hr

loss of cooling
 loss of makeup
 loss of off-site power

} all problems

seismic
 heavy loads

Effectiveness of EP

Risk
 Defense in Depth

Earthquakes	2×10^{-6}
Total is	10^{-5}

Cannot show Δ risk to be acceptable

If have 10^{-5} , how could you license it even with EP.

1 train, no safety grade, 1 source of water.

Add in short-lived isotopes.

- RES should target what you say in discussion of frag.