

Risk Considerations

Δ CDF will be more significant than Δ LERF because containment is not affected.

$$\Delta\text{CDF} = \Delta\text{Frequency} \times \text{CCDP}$$

CCDP for medium LOCA is known from available PRAs

$$3 \times 10^{-3} \text{ for Davis-Besse}$$

Δ Frequency still must be determined

Δ MLOCA Frequency

Two components:

- Frequency of RCS pressure transients reaching failure pressure of as-found cavity.
- Probability that cavity would not have been discovered before cavity grew to size that would rupture at RCS normal operating pressure.

Both components require quantification of failure pressures

Second component also requires quantification of growth rate.

SDP Lessons

1. This is an example of cases where not enough is known about the phenomenon to produce a risk estimate within the time-frame envisioned by the new ROP SDP.
2. SDP is risk-based. Other safety concepts of a risk-informed process seem to be driving the agency's regulatory response in the absence of a Δ CDF value. In this case, loss of design margin appears to be the most important principle for consideration.