

# Spent Fuel Pool Accident Risk Study

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# Presentation Outline

- February report findings
- Summary of significant comments
- Approach to comment resolution
- Results of re-analysis
- Conclusions

# February Report Conclusions

- Frequency of zirconium fire is low
- Consequences comparable to reactor accident large early release
- Seismic events dominate
- EP relaxation after one year is supportable
- Security needed as long as fuel in pool
- Insurance relaxation is more plant specific

# Comments On February Draft

- Source term may be non conservative
- Seismic hazard estimates too conservative
- Zr ignition temperature may be too high
- Partial draindown needs more attention
- Results support EP relaxation at 60 days
- Recommendations not risk-informed

# Approach To Comment Resolution

- Ruthenium and fuel fines added to source term for consequence analyses
- Risks assessed using EPRI and LLNL estimates
- Consequences calculated at earlier times

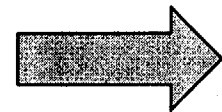


# Approach To Comment Resolution (con't)

- “Small change” analysis per RG 1.174
- Evaluated sequences for likelihood of flow blockage
- Impact of lower temperature criterion examined

# Results

- Consequences with ruthenium and fuel fines still comparable to reactor large early release
- Risk is low but in ball park of operating reactors for first years
- Use of EPRI hazard estimate reduces total risk by about a factor of 4



## Results (con't)

- EP relaxation after 60 days is “small change” consistent with guidelines
- Obstructed air flow potential precludes generic decay time when “significant release is no longer possible”
- Temperature criterion effect not important due to already short times in first years



# Conclusions

- Risk at decommissioning plants is low even in consideration of ruthenium source term
- Relaxation of EP after 60 days is consistent with “small change” in risk guidelines
- New criterion needed if insurance relaxation is to be considered
- Security required as long as fuel is in pool