

Key Assumptions in Licensee SDP Analysis

- All Cables in Overhead Trays are **Thermoset**, 700 °F Damage Temperature (NRC Cable Damage Temperature = 425 °F due to Uncertainty of Cable Type)
- Heat Release Rate Profile of 100kW, Average Time to Peak HRR is 12 Minutes (NRC HRR Profile is 200kW ~ 500kW in 5~10 min.)
- Flame Spread Rate of 10 ft/hr (“Slow Growth”) for Energetic Fire in A4 Switchgear Cabinet (NRC models Fast Growth)
- Simulation of Fire Scenarios
 - Moderate to high stress in Main Control Room, Stress Factor = 2 (NRC value = 5)
 - Local actions are feasible
 - No significant additional stress
 - Lighting is available along path for local actions
 - Local environment permits action (temperature, smoke, lighting, etc.)
 - Sufficient time to reach the fire zone and take action, 1~5 minutes (NRC models 10 minutes)

H/SI