

Design Concept

A. Systems	Include functional design criteria and how they are met
1. Type	Passive vs. Active
2. Components	pumps, turbines, heat exchangers, etc.
3. Layout	
4. State Points	(Temperatures, Pressures, flow rates, velocities, etc.)
5. Any atypical behaviors or nuances to the system	
6. Include all significant systems	primary, secondary, support, safety, etc.
B. Components	
1. Type	axial vs. radial pump, shell & tube vs. plate heat
2. Dimensions	Sizes, thicknesses, heights, radii, etc.
3. State Points	(Temperatures, Pressures, flow rates, velocities, etc.)
4. Behaviors	Any different or noteworthy behavior of the system
5. performance curves	Specifically for heat exchangers and
C. Structures	
1. Type	Piping, vessel wall, support
2. Dimensions	Thickness, height, radius, weight, etc.
3. Performance	Stresses (Hoop, etc.), Pressure allowances, etc.
4. If applicable, temperature gradients	

Core Design

A. Neutronic Performance
1. Power Levels
2. Fuel Cycle
3. Feedbacks
4. Control and Kinetics
5. Neutron Spectrum
B. ThermalHydraulic Components
1. Temperature Profiles
2. Flow Rates
3. Pressures

Safety Analysis

1. Peak Temperatures	
2. Peak Powers	
3. LOCA Transient w/ RELAP	
4. Level 1 PRA w/ LBE's	Frequency/Consequence Results
5. Well reasoned events pathways for LBEs	
6. Selection of mitigating SSC's	
7. Reliability of mitigating SSCs	

Known Gaps/holes

Future Work

Special Considerations, descriptions, or acknowledgments