Legend:
1. CMC: Circulating Melt Containment
2. CDR: Cathode Discharge Removal
3. EDI: Electrodeionization
4. SNF: Spent Nuclear Fuel
5. VPP: Vacuum Process Pretreatment
6. Z: Zirconium
7. O: Oxygen
8. H: Hydrogen
9. ^: Superheat
10. ^: Subcool

Notes:
1. Based on proposed data from Design Basis Document and Vendor proposals.
2. Operating conditions are 87 degrees F and 46% RH (base line wet bulb assumed constant).
3. Cooling tower efficiency is based on 60°C.
4. Cooling tower efficiency is based on 60°C.
5. Cooling tower efficiency is based on 8°C.
6. The atomization of KOH in EDI system input is assumed to be 50%.
7. Cooling tower runs at night for 8 hours and NCO water for 16 hours.

Summary Balance:
- In Flow: 915,337 gpd
- Out Flow: 915,337 gpd
- Difference: 0 gpd

Units: All flows are in gallons per day.

PRELIMINARY DESIGN
Legend:
- CCC: Cycles of Concentration
- CT: Combustion Turbine
- RO: Reverse Osmosis
- EDI: Electrodeionization

Notes:
1. Based on proposal data from Design Basis Document and Vendor proposals.
2. High ambient conditions are 87 degrees F and 40% R.H.
3. Cooling tower blowdown is based on 8 CCC.
4. Evaporative cooler is a wetted media type. Evap Cooler Blowdown is based on 2 CCC.
5. Evaporative cooler evaporation calculated from GE turbine Data.
6. The demineralization EDI system reject is assumed to be 20%.
7. Maximum usage accounts for 2 additional service water hoses, emergency shower use, and emergency shower use.
8. Lake Seneca supply pumps have a maximum flow rate of 450 gpm. Tank storage dampens flow to the tank.

Units: All flows are in gallons per minute
Legend:

COC: Cycles of Concentration
CT: Combinational Tideline
EO: Reverse Osmosis
EDI: Electrodeionization

Notes:
1. Based on proposal data from Design Basis Document and Vendor proposals.
2. High ambient conditions are 87 degrees F and 48% R.H.
3. Cooling tower blowdown is based on 2% COC.
4. Evaporative cooler is wetted media type. Swamp Cooler Blowdown is based on 2% COC.
5. Evaporative cooler evaporation calculated from D.E. literature data.
6. Cooling tower water flow based on 87% efficiency.
7. Maximum usage accounts for 2 additional service water hoses, employee shower use, emergency shower use, and CT wash water tank use.
8. Lake Seneca supply pumps have a maximum flow rate of 450 gpm. Tank storage demineral flow to the tank.

Units: All flows are in gallons per minute

NOTE 5:

PRELIMINARY DESIGN