

REACTOR TRIP BREAKER REPLACEMENT

Oconee Nuclear Station

March 8, 2004

- ❖ **Introductions**
- ❖ **10CFR 50.59 Application**
- ❖ **CRD Related Modifications**
- ❖ **RTB Interfaces**
- ❖ **RTB replacement**
- ❖ **Technical Specification Change**
- ❖ **Closing Remarks**

- ❖ Oconee is undergoing extensive refurbishment to address equipment age and obsolescence issues
- ❖ CRDCS Upgrade is scheduled for implementation during the 3EOC21 RFO which begins October 7, 2004
- ❖ The 10CFR 50.59 rule is applied to all Oconee changes. RG 1.187 endorses NEI 96-07 which provides guidance in implementing the rule
- ❖ Section 4.1.1 of NEI 96-07, Rev. 1 clarifies that aspects of proposed activities that require a TS change must be made via the license amendment process, while the 50.59 process should be applied to the balance of the modification
- ❖ The aspects of this modification (RTB replacement) directly related to the TS change were submitted to the NRC for review

- ❖ CRDM replacement
- ❖ RTB
- ❖ DCRDCS
- ❖ RPS
- ❖ CRD In-Containment Cables
- ❖ CRD Reactor Building Penetrations

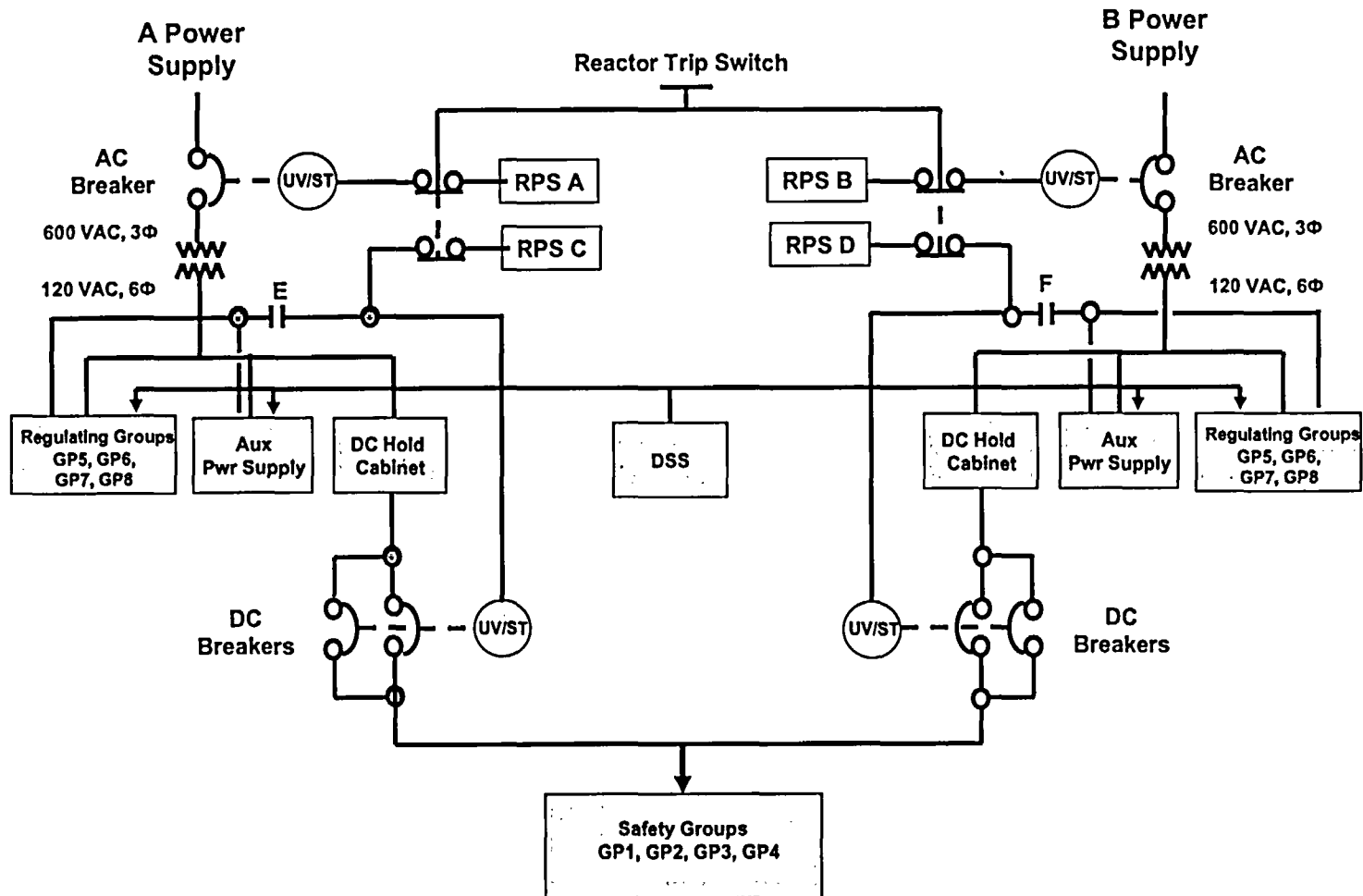
- ❖ Non safety-related
 - CRDCS
 - Main Turbine Trip
 - Generator Trip
 - Main Steam Stop Valves
 - RPS shunt trip

- ❖ Safety-related
 - RPS undervoltage trip

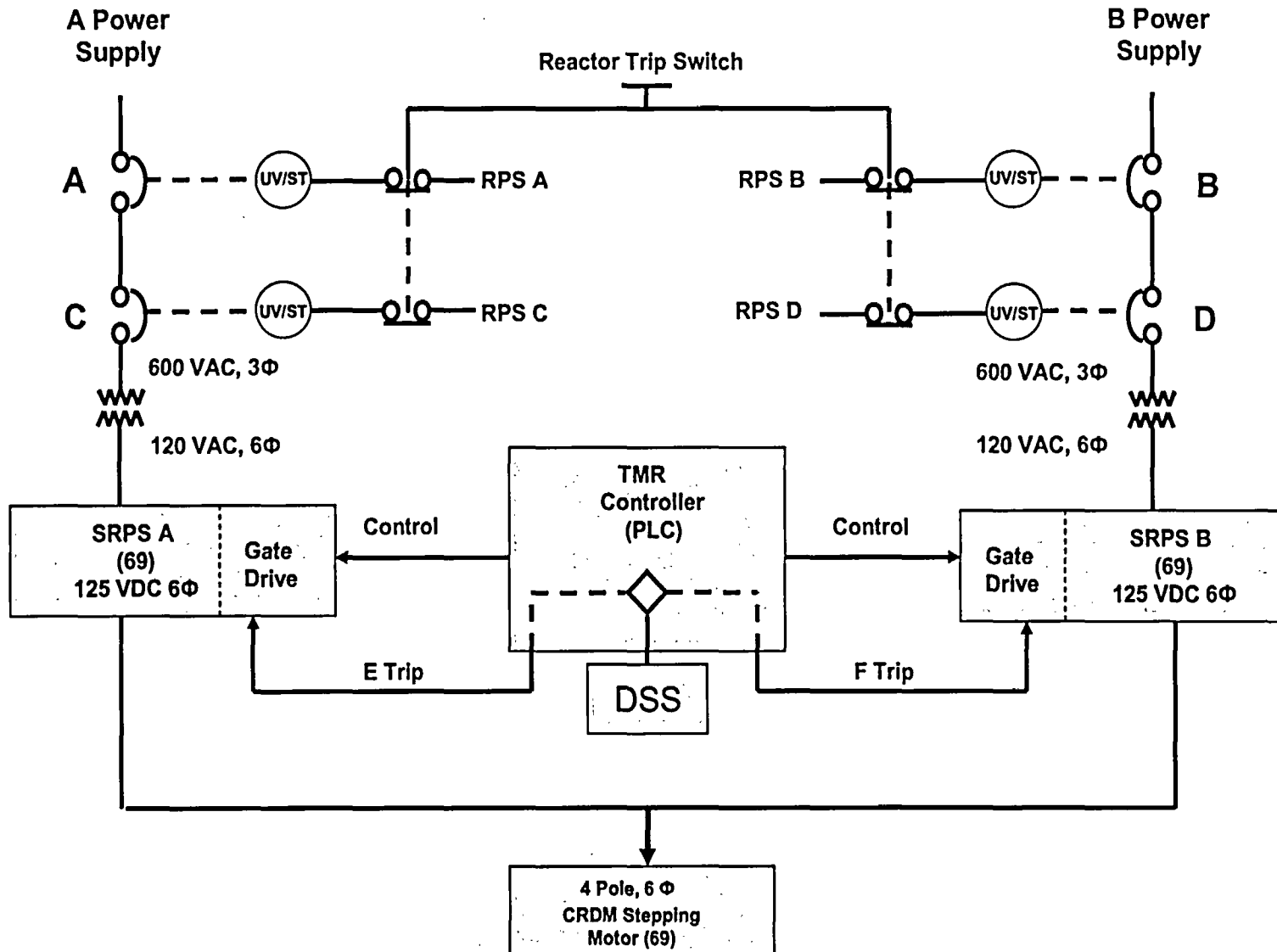
- ❖ Existing configuration
- ❖ New configuration
- ❖ Why change is acceptable
- ❖ New RTB configuration similar to what is installed at later vintage B&W plants



EXISTING RTB CONFIGURATION



NEW RTB CONFIGURATION



- ❖ RPS Manual Trip
- ❖ RPS Automatic Trip
- ❖ Diverse Scram System Trip
- ❖ Source Interrupt Trip

- ❖ LCO requires the following to be OPERABLE:
 - Two AC CRD trip breakers
 - Four DC CRD trip breakers;
 - Eight electronic trip assembly (ETA) relays



PROPOSED TECH SPECS FOR NEW CONFIGURATION

- ❖ LCO requires four AC CRD trip breakers to be OPERABLE
- ❖ ACTION required when LCO not met are the same as existing requirements for AC CRD trip breakers
- ❖ Eliminated requirements for non safety related ETA relay requirements
- ❖ Eliminated requirements for DC CRD trip breakers



❖ Closing Remarks