

**CI-0703****TAB 7: TECHNICAL DISCIPLINES**

Electrical

Space heaters 240 volts, operated at 120 volts.

Meters, indicating lights, protective relays shall be mounted on the front of the switchgear panels and arranged in an approved, logical, symmetrical manner. Meters and readout devices shall be mounted at eye level (approx. 5'-6" A.F.F.).

POWER CIRCUIT BREAKERS

The power circuit breakers shall be 3 pole, single throw, vacuum break, draw-out type, 5 cycle operation, with self-aligning primary and secondary disconnecting devices.

the breakers shall be 100% continuous duty, 5 cycle operation maximum. Each breaker shall be equipped with "stored energy operation" type, anti-pump operating mechanism. It shall be possible to open and close all breakers manually. Remote operation of each breaker from a remote control panel. OPEN and CLOSED complete with visual verification (indicating light). breakers to have capability of lock out, tag out, locked in open position.

The draw out mechanism shall hold breaker rigidly in the fully connected, and full test/disconnect position, with the door closed. Breaker shall be capable of being locked in the test/disconnect position. Breaker cell door handle shall be capable of being locked in the door closed position.

Interlocks shall be provided that will prevent disconnecting the breaker from the bus stabs or inserting the breaker into the bus stabs unless the breaker is in the tripped (open) position. Interlocks shall be provided to only allow installation of the properly rated breakers in the appropriate rated cells.

A non-metallic barrier shall be provided that effectively closes six "bus" stab disconnect holes when the breaker is withdrawn.

Breaker shall be capable of being manually racked into or out of the connected position with the front door closed. A toggle switch shall be provided on the cell door to disconnect the breaker.

Breakers shall have digital read out capability complete with network connectivity.

Vendor shall state any requirements necessary to provide protection from transient overvoltage's that could result during operation of the breakers quoted.