

Part 3: Equipment Control

300) Introduction

300.00.10) The design and construction of control circuits have a major effect upon the proper operation of the service circuit breakers and interrupter switches with which they are associated. We Energies has a vital interest in circuits which influence the ability of Customer-owned service equipment to perform switching and fault clearing functions. The design and construction of control circuits often receive less attention than the related power circuits, but a power system can operate only as effectively as permitted by its control circuits.

300.00.20) All control circuits for service circuit breakers and electrically operated interrupter switches shall be constructed in accordance with the requirements listed in following Section II. We Energies will specify the type, range, and settings of overcurrent relays and the associated current transformer ratios.

310) Control Circuit Practices

Circuit breakers or automatic switches should open for overcurrent conditions as specified by We Energies.

310.10) Control Circuit Relays

310.10.10) Standard device function numbers shall be assigned to identify the functions of all relays. Device function numbers may be found in American National Standard C37.2.

310.10.20) Relays shall be connected to provide proper operation and phasing for the intended application.

310.20) Control Circuits

A means shall be provided to disable the control package for purposes of securing a hold off position.

310.30) Bus Fault Detection

310.30.10) A bus fault detection system shall act to detect a fault and then open all incoming line switches or circuit breakers.

310.30.20) The alternate line switch or circuit breaker shall be blocked from closing after operation of bus fault detection system.

310.30.30) Bus fault protection requirements may vary with equipment insulation medium, construction, proximity of protective device, unprotected bus exposure, system application, interrupting duty, etc.