

FINAL REPORT FOR PRD NO. 79/12

I. Description of Deficiency:

Rosemount has identified a problem with their Model 510 DU master and slave trip units. The maximum current drain for the master and slave trip units exceeds the original specified value.

Actual current requirements may exceed the original specified value for two reasons. The current required by the gross failure circuitry was not considered by Rosemount in the original specification. The gross failure circuitry requirements include the gross failure LED current, the silicon controlled rectified (SCR) biasing current, and the trip output LED current. In addition, current requirements increased because of design changes to the trip units in question. The design changes pertain to the operating requirements of an integrated circuit, designated as Type 555, which is a component in the trip unit's negative 4.7 volt power supply.

II. Safety Implication:

Bechtel has reviewed the power sources for all the safety-related Rosemount Model 510 DU master and slave trip units to determine if the larger current drains would adversely affect the operation of the systems to which they are designated. As a result of this evaluation, it has been determined that power supplies P41-JY-K600 A and B for Units 1 and 2 (Bailey Model 808094003) are not large enough to handle the larger maximum current drains specified by Rosemount. All other power sources have adequate capacity to handle the larger current drains.

III. Corrective Action Taken:

The inadequate power supplies are being replaced. NCR 4126 was issued noting the discrepancy condition. The NCR has been dispositioned for GE to furnish the power supplies, and Bechtel to install and checkout the new power supplies per General Electric's FDDR/FDI.

Details of the corrective action are delineated in Bechtel's Management Corrective Action Report, MCAR - GGNS No. 51.