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NOTE TO: File

THRU: M. Chiramal, Plant Systems Unit
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SUBJECT: PEACH BOTTOM UNIT NUMBER 3 OCCURRENCE ON FEBRUARY 25, 1981

OCCURRENCE

On February 25, 1981 at 8:29 p.m. Unit Number 3 reactor was manually scrammed after an inadvertant RHR relay logic "A" signal initiated simultaneous closure of both recirculation pump discharge valves. The recirculation pumps then tripped in accordance with interlock logic. Also, Groups II and III isolations occurred on the reactor vessel low water level initiation as designed. This event occurred while station personnel were attempting to isolate and remove a ground associated with the "A division" of the 125 volt dc subsystem.

ANALYSIS OF OCCURRENCE

Figure 1 is a simplified electrical schematic of the GE RHR elementary diagram for relay circuit "A" logic. As wired in the associated panel, the negative 125 volt dc line consists of three physically separate sections, with two of them branching off at terminal BB-58. Figure 1 shows these three sections, and this Figure will be used for the remainder of this analysis. Wires a and b were removed from terminal BB-58 to isolate the considerable number of relays attached to them (all attached relays are not shown on Figure 1). When this was done, the sections identified as 1 and 2 of the negative ground became positive through the relay coils of K14A, K15A and K16A. The third section of the negative ground remained unchanged and is marked -. Due to this action (disconnecting wires from terminal), HGA type relay K136A picked up and sealed itself in. To energize this coil current passed through the HFA type coils of K132A and K133A but these relays did not pick up. When the two wires a and b were reattached to terminal BB-58, the relays K132A and K133A picked up since relay K136A had sealed in. One of these two relays provide a contact to the closing circuitry of one recirculation pump discharge valve and the other provides a contact to the closing circuitry of the other recirculation pump discharge valve. These actions occurred while station personnel were attempting to isolate and remove a ground associated with the "A division" of the 125 volt dc subsystem.

RECOMMENDATIONS

As a result of this occurrence station personnel have recommended that all battery ground tracing be performed by ohmmeter with associated circuit fuses removed. The Plant Systems Unit concurs with this recommendation, however for future occurrences of this nature involving the isolation and removal of grounds, assurance should be ascertained that the disconnection and reconnection of associated circuitry is minimized.

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