

DUKE POWER COMPANY
OCONEE UNIT 3

Report No.: UE-287/75-6

Report Date: June 3, 1975

Event Date: April 30, 1975

Facility: Oconee Unit 3, Seneca, South Carolina

Identification of Event: Source range nuclear instrumentation inoperable

Conditions Prior to Event: Reactor trip

Description of Event:

On April 30, 1975, during the performance of the Oconee Unit 3 loss of electrical load test, a reactor trip occurred. During the ensuing shutdown, the source range nuclear instrumentation channels did not come on scale to maintain overlap between the source and intermediate range nuclear instrumentation channels. Source range channel NI-1 had been inoperable since April 28, 1975 due to the failure of the preamplifier. Source range channel NI-2 was determined to have had a deenergized high voltage power supply. Source range channel NI-2 was immediately restored to operable status and indicated a normal neutron level.

Designation of Apparent Cause of Event:

During the repair of source range channel NI-1, comparison measurements between the high voltage power supplies of the two channels were performed. In the course of these measurements, the power supply to channel NI-2 was turned on and off several times. The apparent cause of this event was the failure to ensure that the power supply switch for source range channel NI-2 was left in the "On" position after testing had been completed.

Analysis of Event:

The source range nuclear instrumentation channels were inoperable for a period of 35 minutes during and after a reactor trip. Technical Specification 3.5.1 requires the source range channel to be operable during refueling, startup, and when the reactor is critical with power level not greater than 10 percent full power. None of these modes were in progress when NI-2 was inoperable. The source range channels have no trip functions; however, the startup rod withdrawal inhibit would not have functioned had a high startup rate been present. In this instance, however, a shutdown rather than a startup was in progress. In addition, the intermediate range channels also have a startup rate rod withdrawal inhibit associated with them and this would have prevented a high startup rate. It is concluded that the health and safety of the public was not affected.

Corrective Action:

The immediate corrective action was to return NI-2 to an operable status. NI-1 was also returned to an operable status on May 8, 1975. This incident has been reviewed with the individuals involved and with the entire Instrument Group.