

50-225

DEPARTMENT OF NUCLEAR ENGINEERING &
ENGINEERING PHYSICS

INTERDEPARTMENTAL MEMORANDUM

Date: January 28, 1992
TO: Dr. Robert C. Block, Department Head &
Chairman, Nuclear Safety Review Board
FROM: Dr. D.R. Harris, Director RCF
E.F. Muzzey, Associate Engineer
RE: Safety Switches Installed

The installation of the Reactor Rod Drive Safety Switches required by the Nuclear Regulatory Commission is complete and tested. Individual testing of Rod Drives 3, 5, 4, and 7 was conducted and completed on January 10, 1992 by Associate Engineer, Ernest Muzzey, Facility Supervisor, Kenneth Connor, and David Hayes. The function of the switches is to disconnect "Up-Drive" power to the Rod Drive if, in the event of a Rod Drive control malfunction, the Rod Drive raises the Reactor Control Rod past the 36" maximum designed rod extension. The Safety Switch operates independently of the Rod Drive Limit Switches and associated mechanical components. This was accomplished by mounting the Safety Switches to the bottom plate of the Reactor Rod Drive assembly and adjacent to the Rack Gear that pulls the control rod out of the reactor. A bracket directly mounted to the same Rack Gear as the Safety Switch is mounted next to activates the Safety Switch if the Rack Gear travels more than 36 inches. The Safety Switch does not require mechanical or electrical resetting and does not interfere with Scram or Control Rod Drive-In function. A visual flashing function of the Up Limit Switch bulb in the control console now alerts the reactor operator to the fact that the Safety Switch has been activated.

DRH:jjd

cc: K. Connor, Supervisor
D. Hayes
A. Bergles, Dean, School of Eng.
T. Michaels, USNRC, Bethesda
R. Rohr Adjunct Professor
Members, NSRB
G. Judd, Vice Provost, Acad. Affairs
T. Dragoun, USNRC, King of Prussia

A020 1/0