LICENSEE: NEW YORK POWER AUTHORITY
SITE: FITZPATRICK 1 EN NUMBER:26133
DOCKET: 05000333 EVENT DATE: 09-28-93
RX TYPE: BWR EVENT TIME: 11:30
VENDORS: GE-4 NOTIFY DATE: 09-28-93
EMERGENCY CLASS: N/A REGION: 1 STATE: NY TIME: 13:09
OPS OFFICER: JACK LEWIS
10 CFR SECTION: AINB 50.72(b)(2)(iii)(B) POT RHR INOP

UNIT	SCRAM CODE	RX CRIT	INIT PWR	INITIAL MODE	CURR PWR	CURRENT MODE
1	N	Y	92	POWER OPERATION	92	POWER OPERATION

-MOTOR OPERATED VALVE MOTOR FAILURE REVIEW-

A REVIEW OF THE ACTUATOR DESIGN FOR CONTAINMENT ISOLATION VALVES 10 MOV 25A AND 10 MOV 25B HAS DETERMINED THAT THE VALVE MOTORS COULD FAIL DUE TO REPEATED STARTS.

THE LICENSEE BELIEVES THE PROBLEM IS DUE TO A DESIGN DEFICIENCY RELATED TO THE TORQUE SWITCH SIZE SELECTION. THEY BELIEVE THE TORQUE SWITCH SIZE IS TOO SMALL.

THESE VALVE ARE REQUIRED TO BE OPERABLE ANY TIME THE REACTOR IS CRITICAL OR THE REACTOR TEMPERATURE IS GREATER THAN 212 F AND THERE IS FUEL IN THE VESSEL.

BRIEF DESCRIPTION OF THE PROBLEM IS AS FOLLOWS:

THESE VALVES ARE ASSOCIATED WITH RESIDUAL HEAT REMOVAL SYSTEM, SHUTDOWN COOLING MODE AND ARE NORMALLY CLOSED DURING POWER OPERATION. THEY RECEIVE A CONTINUOUS CLOSE SIGNAL DURING POWER OPERATION.

NORMALLY AFTER THE VALVES ARE FULLY SHUT, THE TORQUE SWITCH CONTACTS WOULD OPEN REMOVING THE ELECTRICAL SIGNAL FROM THE VALVE. HOWEVER, AFTER THE VALVES ARE FULLY SHUT THE MOTOR GEARS RELAX, WHICH ALLOWS THE TORQUE SWITCH CONTACTS TO RECLOSE AND THIS ALLOWS A CLOSE SIGNAL TO THE VALVE AGAIN WHICH ALLOWS THE MOTOR TO RE-ENERGIZE IN THE CLOSE DIRECTION. THE TORQUE SWITCHES WILL THEN RE-OPEN WHICH ALLOWS THE GEARS TO RELAX AGAIN AND REPEAT THE PROCESS. THIS CONTINUES OVER AND OVER UNTIL THE VALVE MOTOR FAILS.

THE LICENSEE IS DOING AN EVALUATION TO DETERMINE IF A PART 21 REPORT IS NECESSARY.

THE LICENSEE INFORMED THE NRC RESIDENT INSPECTOR.