

LICENSEE: PUBLIC SERVICE ELECTRIC & GAS CO.
 SITE: HOPE CREEK 1 EN NUMBER: 28014
 DOCKET: 05000354 EVENT DATE: 11-10-94
 RX TYPE: BWR EVENT TIME: 14:17
 VENDORS: GE-4 NOTIFY DATE: 11-10-94
 EMERGENCY CLASS: N/A REGION: 1 STATE: NJ TIME: 15:17
 OPS OFFICER: TIM MCGINTY
 10 CFR SECTION: AIND 50.72(b)(2)(iii)(D) ACCIDENT MITIGATION
 UNIT SCRAM RX INIT INITIAL MODE CURR CURRENT MODE
 CODE CRIT PWR PWR
 1 N Y 100 POWER OPERATION 100 POWER OPERATION

ECCS ROOM COOLER COOLING WATER SUPPLY VALVES FAILED TO OPEN FOR UNKNOWN REASONS.

WHILE TESTING THE SACS (SAFETY AUXILIARIES COOLING SYSTEM), LOOP AIR OPERATED GATE VALVES FOR QUARTERLY SURVEILLANCE, SEVERAL OF THE VALVES HAVE FAILED TO OPEN WHEN REQUIRED. THE SACS IS A "SAFETY RELATED COOLING WATER SYSTEM FOR ECCS PUMPS AND EDGs". THE LICENSEE HAS DISASSEMBLED AND INSPECTED THE VALVES AND HAS NOT FOUND ANY REASON FOR THE FAILURES. THIS REPORT IS BEING MADE DUE TO THE POSSIBLE GENERIC FAILURE OF THIS TYPE OF VALVE.

HOPE CREEK HAS 32 OF THIS TYPE OF VALVE PACKAGE. THEY ARE HILLAR ACTUATOR, AIR POWERED GATE VALVES. THERE ARE THREE DIFFERENT TYPES OF HILLAR ACTUATOR MODEL #'s:

- 1) MODEL # 8-SA-A026, WITH A 3" ANCHOR-DARLING GATE VALVE
- 2) MODEL # 10-SA-A047, WITH A 4" ANCHOR-DARLING GATE VALVE
- 3) MODEL # 10-SA-A049, WITH A 6" ANCHOR-DARLING GATE VALVE

THE LICENSEE IS CURRENTLY TESTING THE VALVES AT A WEEKLY INTERVAL (VICE 92 DAYS), AND HAS NOT EXPERIENCED ANY PROBLEMS SINCE INSTITUTING MORE FREQUENT TESTING. THE MOST RECENT FAILURE INVOLVED TWO VALVES ABOUT A WEEK AGO. HISTORICALLY, HOWEVER, THERE HAVE BEEN OTHER FAILURES THAT THEY HAVE NOT BEEN ABLE TO ATTRIBUTE TO A SPECIFIC MECHANICAL PROBLEM. THE LICENSEE IS WORKING WITH BOTH THE ACTUATOR AND VALVE MANUFACTURERS TO ATTEMPT TO IDENTIFY THE SOURCE OF THE PROBLEM.

ALL OF THE VALVES ARE ON THE SAME COOLING WATER SYSTEM (SACS), PROVIDING FLOW TO THE ECCS EQUIPMENT ROOM COOLERS IN VARIOUS LOCATIONS (TWO COOLERS PER ECCS PUMP). BOTH VALVES TO BOTH COOLERS FOR A PARTICULAR ECCS PUMP WOULD HAVE TO FAIL TO AFFECT AN INDIVIDUAL ECCS PUMP, AND THERE IS PROCEDURAL GUIDANCE IN PLACE FOR OPERATOR ACTION ON HIGH ROOM TEMPERATURES. THE VALVES ARE NORMALLY CLOSED, AND FAIL SAFE (SPRING OPEN) WHEN THE SOLENOID IS DE-ENERGIZED.

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THE LICENSEE HAS NOT CURRENTLY DECLARED ANY ECCS EQUIPMENT INOPERABLE AT THIS TIME DUE TO THIS PROBLEM. THE PROBLEM SEEMS TO SHOW UP ONLY WHEN THE QUARTERLY TEST IS PERFORMED, AND NO FAILURES HAVE BEEN FOUND WHEN THEY ARE STROKED WEEKLY. ABOUT A YEAR AGO, A DESIGN CHANGE TO THE AIR SUPPLY OF THE ACTUATOR WAS PERFORMED, AND THERE WERE NO ADDITIONAL FAILURES UNTIL THE TWO THAT OCCURRED LAST WEEK.

THE LICENSEE HAS INFORMED THE RESIDENT INSPECTOR.