

P21 92217  
Publicly Available

POWER REACTOR

EVENT NUMBER: 24515

| FACILITY: DRESDEN                          |            | REGION: 3 |          | NOTIFICATION DATE: 10/27/92   |          |                 |
|--|------------|-----------|----------|-------------------------------|----------|-----------------|
| UNIT: [ ] [2] [3]                          |            | STATE: IL |          | NOTIFICATION TIME: 21:21 [ET] |          |                 |
| RX TYPE: [1] GE-1, [2] GE-3, [3] GE-3      |            |           |          | EVENT DATE: 10/27/92          |          |                 |
| NRC NOTIFIED BY: PALANYK                   |            |           |          | EVENT TIME: 19:40 [CST]       |          |                 |
| HQ OPS OFFICER: GREG SCARFO                |            |           |          | LAST UPDATE DATE: 10/27/92    |          |                 |
| EMERGENCY CLASS: NOT APPLICABLE            |            |           |          | NOTIFICATIONS                 |          |                 |
| 10 CFR SECTION:                            |            |           |          | GARY SHEAR RDO                |          |                 |
| ADEG 50.72(b)(1)(ii) DEGRAD COND DURING OP |            |           |          |                               |          |                 |
| NLCO TECH SPEC LCO A/S                     |            |           |          |                               |          |                 |
| UNIT                                       | SCRAM CODE | RX CRIT   | INIT PWR | INIT RX MODE                  | CURR PWR | CURR RX MODE    |
| 2  | N          | Y         | 91       | POWER OPERATION               | 91       | POWER OPERATION |
| 3  | N          | Y         | 96       | POWER OPERATION               | 96       | POWER OPERATION |

EVENT TEXT

TWO CORE SPRAY PUMPS WERE DECLARED INOPERABLE AFTER THE DISCOVERY THAT FOUR SAFETY BUSES UTILIZED ABB TYPE 27N RELAYS AS SECONDARY UNDERVOLTAGE RELAYS.

AFTER THE REVIEW OF THE PART 21 (SETPOINT DRIFT DUE TO TOTAL DOSE EXPOSURE) REGARDING ABB TYPE 27N RELAYS, IT WAS DETERMINED THAT THESE RELAYS WERE USED AS SECONDARY UNDERVOLTAGE RELAYS ON SAFETY BUSES "23-1", "24-1", "33-1", AND "34-1". THE POTENTIAL INCREASE IN THE RELAY TRIP SETPOINT COULD RESULT IN PREVENTING CORE SPRAY PUMPS AND LOW PRESSURE CORE INJECTION (LPCI) PUMPS FROM STARTING DURING A LOSS-OF-OFFSITE-POWER EVENT. CORE SPRAY PUMPS "2B" AND "3A" HAVE BEEN DECLARED INOPERABLE AND TECHNICAL SPECIFICATION ACTION STATEMENT 3.5.A.2 (7 DAY LCO) WAS ENTERED.

THE ABOVE CORE SPRAY PUMPS WERE DECLARED INOPERABLE DUE TO THE FOLLOWING SCENARIO. DURING A POSTULATED LOCA WITH FUEL FAILURE, THE "2B" AND "3A" CORE SPRAY PUMPS WOULD PUMP TORUS INVENTORY THROUGH LINES THAT PASS CLOSE TO THE FOUR AFFECTED SAFETY BUSES. WITH FISSION-PRODUCTS ENTRAINED IN THE COOLANT, THE SECONDARY UNDERVOLTAGE RELAYS ON THOSE SAFETY BUSES WOULD BE EXPOSED TO ELEVATED RADIATION LEVELS. SETPOINT DRIFT WOULD OCCUR AND PREVENT THE COMPLETION OF A "PUMP START PERMISSIVE" (WHOSE INPUTS COME FROM THESE RELAYS) DURING A LOSS OF OFFSITE POWER.

THE SHORT-TERM CORRECTIVE ACTION IS TO INSTALL SHIELDING TO THE SECONDARY UNDERVOLTAGE RELAYS AND THE CORE SPRAY SYSTEM. LONG TERM CORRECTIVE ACTIONS WILL BE DETERMINED PENDING THE COMPLETION OF AN INVESTIGATION. THE LICENSEE INFORMED THE NRC RESIDENT INSPECTOR.