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# Licensee Event Report (LER) Compilation

For month of December 1985

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Oak Ridge National Laboratory

Prepared for  
U.S. Nuclear Regulatory  
Commission

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For month of December 1985

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Oak Ridge National Laboratory  
Nuclear Safety Information Center  
Oak Ridge, TN 37831

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Abstract

This monthly report contains Licensee Event Report (LER) operational information that was processed into the LER data file of the Nuclear Safety Information Center (NSIC) during the one month period identified on the cover of the document. The LERs, from which this information is derived, are submitted to the Nuclear Regulatory Commission (NRC) by nuclear power plant licensees in accordance with federal regulations. Procedures for LER reporting for revisions to those events occurring prior to 1984 are described in NRC Regulatory Guide 1.16 and NUREG-1061, *Instructions for Preparation of Data Entry Sheets for Licensee Event Reports*. For those events occurring on and after January 1, 1984, LERs are being submitted in accordance with the revised rule contained in Title 10 Part 50.73 of the Code of Federal Regulations (10 CFR 50.73 - Licensee Event Report System) which was published in the Federal Register (Vol. 48, No. 144) on July 26, 1983. NUREG-1022, *Licensee Event Report System - Description of Systems and Guidelines for Reporting*, provides supporting guidance and information on the revised LER rule.

The LER summaries in this report are arranged alphabetically by facility name and then chronologically by event date for each facility. Component, system, keyword, and component vendor indexes follow the summaries. Vendors are those identified by the utility when the LER form is initiated; the keywords for the component, system, and general keyword indexes are assigned by the computer using correlation tables from the Sequence Coding and Search System. Questions concerning this report or its contents should be direct to

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[ 1 ]      ARKANSAS NUCLEAR 2      DOCKET 50-368      LER 85-018  
REACTOR TRIP DUE TO COMPONENT FAILURE IN CONTROL ELEMENT ASSEMBLY CALCULATORS.  
EVENT DATE: 081685      REPORT DATE: 091685      NSSS: CE      TYPE: PWR  
VENDOR: COPES-VULCAN, INC.  
SYSTEMS ENGINEERING LABORATORIES, INC.

(NSIC 196003) ON 8-16-85 AT 0929 HRS A REACTOR TRIP OCCURRED. EMERGENCY FEEDWATER WAS ACTUATED ON LOW SG LEVEL. MANUAL CONTROL OF EPW WAS TAKEN TO MAINTAIN DESIRED SG LEVELS. STEAM DUMP VALVE 2CV-0306 WAS OPENED AS DESIGNED ON THE REACTOR TRIP BUT DID NOT CLOSE WHEN STEAM PRESSURE WAS REDUCED. HOWEVER, THE OPEN VALVE DID NOT HAVE A SIGNIFICANT EFFECT ON POST TRIP PARAMETERS. VALVE 2CV-0306 WAS ISOLATED PROMPTLY. THE FEEDBACK ARM ON THE VALVE POSITIONER WAS FOUND TO BE BROKEN. THE FEEDBACK ARM WAS REPLACED. VALVE 2CV-0306 WAS VERIFIED OPERABLE AND RETURNED TO SERVICE. INVESTIGATION INTO THE CAUSE OF THE REACTOR TRIP REVEALED THAT FIELD EFFECT TRANSISTORS (FET) HAD FAILED IN THE HIGH LEVEL MULTIPLEXER CARDS FOR THE CONTROL ELEMENT ASSEMBLY CALCULATOR (CEAC) NUMBER 2 ANALOG INPUT. THIS RESULTED IN ERRONEOUS CONTROL ELEMENT ASSEMBLY (CEA) POSITION SIGNALS TO CEAC 2 AND CORE PROTECTION CALCULATOR (CPC) CHANNEL C. THESE ERRONEOUS SIGNALS RESULTED IN LARGE PENALTY FACTORS BEING GENERATED IN CEAC 2 WHICH WERE INPUT TO THE CPC'S. AS A RESULT THE CPC'S GENERATED LOW DNBR REACTOR TRIP SIGNALS. AMPLIFIER AND HIGH LEVEL MULTIPLEXER CARDS WERE REPLACED AS NECESSARY IN THE CPC/CEAC ANALOG INPUT CHASSIS. SINCE IT IS BELIEVED THAT FAILURE OF MORE THAN ONE FET WOULD BE REQUIRED TO PRODUCE THE ERRONEOUS SIGNALS, DEVELOPMENT OF TESTS TO IDENTIFY SINGLE FAILURES IN THESE CARDS IS BEING INVESTIGATED.

[ 2] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 85-019  
LOW STEAM GENERATOR PRESSURE CAUSES MAIN STEAM ISOLATION DURING PLANT COOLDOWN.  
EVENT DATE: 091385 REPORT DATE: 101385 NSSS: CE TYPE: PWR

(INSIC 196245) DURING A PLANT COOLDOWN ON 9-13-85 FOR REPLACEMENT OF A RCP SEAL, THE MSIS ACTUATED ON LOW SG PRESSURE AT 1039 HRS. ALL COMPONENTS ACTUATED AND FUNCTIONED PROPERLY. SECONDARY SYSTEM PRESSURE WAS ALLOWED TO INCREASE ABOVE THE ACTUATION SETPOINT OF 751 PSIA AND BY 1045 HRS THE MSIS WAS RESTORED TO THE PRE-ACTUATION CONDITION. THE REACTOR WAS SHUT DOWN WITH CONTROL RODS INSERTED AND REACTOR TRIP CIRCUIT BREAKERS OPEN AT THE TIME OF MSIS ACTUATION. THE MSIS FUNCTION IS A PORTION OF THE ESF'S THAT RECEIVES AN ACTUATION ON LOW SG PRESSURE BASED ON A VARIABLE SETPOINT. DURING A COOLDOWN THE LICENSED CONTROL ROOM OPERATOR MANUALLY DECREASES THIS SETPOINT (PER PROCEDURE) BASED ON RECEIVING AN ANNUNCIATED PRETRIP INDICATION OF LOW SG PRESSURE. THE CAUSE OF THIS EVENT WAS THE LICENSED CONTROL ROOM OPERATOR'S INATTENTION TO THE PRETRIP CONDITION DUE TO POORLY DEFINED SPECIFIC RESPONSIBILITY AND INAPPROPRIATE ADMINISTRATIVE TASKS ASSIGNED CONSIDERING OPERATIONS IN PROGRESS. AFTER RESETTNG THE MSIS, THE PLANT COOLDOWN CONTINUED WITHOUT FURTHER INCIDENT. DISCUSSIONS WERE HELD WITH THE SHIFT OPERATIONS SUPERVISORS RE-EMPHASIZING THE IMPORTANCE OF ENSURING THAT PERSONNEL ARE ASSIGNED SPECIFIC TASKS OF MONITORING AND CONTROL FROM THEIR PANEL STATIONS, AND OF LIMITING ADMINISTRATIVE TASKS DURING PERIODS OF MAJOR PLANT EVOLUTIONS.

[ 3 ]            ARNOLD                                 DOCKET 50-331            LER 85-025  
INADVERTENT STEAM LINE HIGH RADIATION RPS TRIP DURING SURVEILLANCE TEST.  
EVENT DATE: 070885      REPORT DATE: 080785          NSSS: GE                TYPE: BWR

(NSIC 196286) AT 1610 HRS ON 7-8-85, WHILE THE REACTOR WAS SHUT DOWN FOR A REFUELING OUTAGE, A FULL RPS TRIP SIGNAL AND A CONTAINMENT ISOLATION GROUP I: MSIV'S, MSIV DRAINS AND RECIRCULATION SAMPLE VALVES ISOLATION SIGNAL WERE RECEIVED FROM THE MAIN STEAM LINE RADIATION MONITORS. CONTROL RODS HAD PREVIOUSLY BEEN FULLY INSERTED FOLLOWING REFUELING. AT THE TIME OF THE TRIP, TECHNICIANS WERE PERFORMING A MAIN CONDENSER VACUUM PUMP ISOLATION FUNCTIONAL

(INSIC 196232) ON 8-5-85 IN PREPARATION FOR REMOVING THE 'A' EMERGENCY DG FROM SERVICE FOR A QUARTERLY SCAVENGING AIR LOWER INSPECTION, AN OPERABILITY TEST WAS PERFORMED ON THE 'B' DIESEL. A FUEL OIL QUALITY TEST FOR THE 'B' DIESEL WAS ALSO PERFORMED. THE OPERABILITY TEST WAS SUCCESSFULLY CONCLUDED AND THE 'A' EDG WAS TAKEN OUT OF SERVICE. THE PLANT ENTERED A VOLUNTARY 7 DAY LCO. HOWEVER, WHEN TESTS OF THE FUEL SAMPLES TAKEN FROM THE 'B' EDG DAY TANK WERE COMPLETED, IT WAS FOUND THAT SEDIMENT LEVELS IN THE SAMPLES WERE SLIGHTLY HIGHER THAN SPECIFIED BY TECH SPEC 4.8.A.1.D WHICH REFERENCES ASTM D975-68. THEREFORE, EVEN THOUGH THE OPERABILITY TEST ON THE 'B' DIESEL HAD BEEN SATISFACTORY, IT WAS DECLARED INOPERABLE. SINCE BOTH EDG'S WERE THEN INOPERABLE, AN UNUSUAL EVENT WAS DECLARED AND THE PLANT ENTERED A 24 HR LCO AND BEGAN REDUCING POWER IN ACCORDANCE WITH TECH SPEC 3.5.G.1. THE 'A' EDG WAS RETURNED TO SERVICE, THUS ENDING THE 24 HR LCO. FILTERED RECIRCULATION OF THE 'B' EDG DAY TANK WAS PERFORMED AND THE FUEL QUALITY TEST WAS SUCCESSFULLY CONCLUDED ON 8-6-85, RETURNING THE 'B' EDG TO OPERABLE CONDITION.

(NSIC 196231) WHILE PERFORMING A DIESEL FIRE PUMP OPERABILITY TEST, A LEAK WAS DETECTED IN THE FIRE MAIN OUTSIDE THE REACTOR BLDG. A PORTION OF THE FIRE MAIN WAS ISOLATED TO INITIATE REPAIRS. THIS ACTION ALSO ISOLATED ALL REACTOR BLDG HOSE STATIONS INCLUDING 8 WHICH ARE REQUIRED BY TECH SPEC 3.13.E.1. ACTION WAS IMMEDIATELY INITIATED TO RESTORE THE FUNCTION OF THESE INOPERABLE HOSE STATIONS WITHIN THE ONE HR LIMIT OF TECH SPEC 3.13.E.2. THIS WAS ACCOMPLISHED BY CONNECTING THE REACTOR BLDG FIRE SUPPRESSION SYSTEM TO AN OPERABLE SECTION OF THE FIRE MAIN. HOWEVER, THE TIME REQUIRED TO LOCATE AND ASSEMBLE THE NECESSARY 'Y' FITTINGS AND PIPING SPOOLS AND MAKE THE INTERCONNECTION EXCEEDED 1 HR.

(NSIC 196287) ON 8-22 AT 1330 HRS, BOTH EMERGENCY DG'S WERE DECLARED INOPERABLE AND IN ACCORDANCE WITH TECH SPECS 3.5.G.1, A 24 HR LCO WAS DECLAR/D. THIS ACTION WAS TAKEN DUE TO THE DETERMINATION BY PLANT PERSONNEL THAT IN THE THEN EXISTING PLANT ELECTRICAL LINEUP, THE LOSS OF 1 OF 2 TRANSFORMERS THAT COULD SUPPLY VITAL POWER BUSES FROM OFFSITE POWER, CONCURRENT WITH A LOCA, COULD HAVE DEFEATED THE LOAD SEQUENCING LOGIC OF THE EMERGENCY DG'S. THEREFORE, A CORE SPRAY PUMP AND 2 RHR PUMPS (PER DIESEL) WOULD HAVE ATTEMPTED TO LOAD SIMULTANEOUSLY ONTO THE DIESEL (ONCE IT OBTAINED NOMINAL VOLTAGE) RATHER THAN IN 5 SEC SEQUENCED INTERVALS. THE VITAL BUS LOADS, IN THIS SITUATION, COULD HAVE CAUSED THE DG'S TO TRIP DURING LOADING. TO ENSURE BUS VITAL LOADS ALWAYS SEQUENCE UPON BUS TRANSFERS, KEYLOCK TEST SWITCHES WERE PLACED IN THE 'TEST' POSITION ENDING THE LCO AT 2240 HRS. AS THE VITAL LOADS WOULD THEN ALWAYS SEQUENCE FOLLOWING

TRANSFER, (REGARDLESS OF WHETHER THE DG'S OR A TRANSFORMER WAS SUPPLYING THE POWER) PROPER VITAL EQUIPMENT OPERATION WAS ASSURED. THE CONSERVATIVE DECLARATION OF THE EDG'S INOPERABLE WAS BASED UPON THE DETERMINATION THAT A CREDIBLE EVENT (LOSS OF ONLY 1 TRANSFORMER), CONCURRENT WITH A LOCA, COULD HAVE INTRODUCED A COMMON MODE FAILURE OF THE ONSITE EMERGENCY AC POWER SUPPLY SYSTEM. THIS SITUATION COULD HAVE BEEN MORE LIMITING THAN A DESIGN BASIS LOSS OF OFFSITE POWER EVENT CONSIDERED IN ACCIDENT ANALYSIS.

[ 7]           ARNOLD   DOCKET 50-331                         LER 85-035  
RCIC INOPERABLE DUE TO TURBINE CONTROL FAILURES.  
EVENT DATE: 090485      REPORT DATE: 100485                         NSSS: GE                         TYPE: BWR  
VENDOR: TERRY STEAM TURBINE COMPANY  
                WOODWARD GOVERNOR COMPANY

(NSIC 196352) ON 9-4-85 THE RCIC WAS DECLARED INOPERABLE AFTER IT FAILED A SURVEILLANCE TEST. THIS PLACED THE PLANT IN A 7 DAY LCO, CONTINGENT UPON THE CONTINUED OPERABILITY OF THE HPCI, WHICH WAS TESTED AND PROVED OPERABLE. THE RCIC TURBINE HAD TRIPPED ON ITS FIRST MANUAL START, AND THE RCIC PUMP DID NOT MEET OPERABILITY REQUIREMENTS FOR DIFFERENTIAL PRESSURE PER ASME SECTION XI AND TECH SPEC 3.5.E.2. THE CAUSE OF THE TURBINE TRIP WAS A WORN MECHANICAL OVERSPEED TRIP LINKAGE SYSTEM. THE WORN AREAS OF THE LINKAGE WERE REFURBISHED, AND NEW PARTS ARE ON ORDER. THE FAILURE OF THE RCIC PUMP TO MEET ASME REQUIREMENTS WAS DUE TO AN INACCURATE RCIC TURBINE TACHOMETER. READINGS TAKEN WITH A PORTABLE TACHOMETER INDICATE THE PUMP HAS EXPERIENCED LITTLE IF ANY DEGRADATION SINCE INSTALLATION. A NEW TURBINE GOVERNOR CONTROL BOX (WOODWARD GOVERNOR CO EG-M), WHICH CONTAINS THE TACHOMETER CIRCUITRY HAS BEEN ORDERED. UNTIL IT IS REPLACED, ASME TESTS WILL USE A PORTABLE TACHOMETER. THE EXISTING GOVERNOR CIRCUITRY FULFILLS ALL OPERABILITY REQUIREMENTS. THE RCIC SYSTEM SUCCESSFULLY COMPLETED MULTIPLE OPERABILITY TESTS AND WERE DECLARED OPERABLE ON 9-9-85, ENDING THE 7 DAY LCO. RCIC SURVEILLANCE TESTING FREQUENCY WILL BE PERFORMED ONCE A WEEK FOR A MONTH. ALTHOUGH THE REDUNDANT SYSTEM (HPCI) WAS OPERABLE, THIS EVENT IS BEING REPORTED BECAUSE IT INVOLVES THE INOPERABILITY OF A SINGLE TRAIN SAFETY SYSTEM.

[ 8] BEAVER VALLEY 1 DOCKET 50-334 LER 84-011 REV 1  
UPDATE ON MAIN STEAM SAFETY VALVE LIFT SETTINGS OUTSIDE ALLOWABLE LIMITS.  
EVENT DATE: 101284 REPORT DATE: 011185 NSSS: WE TYPE: PWR  
VENDOR: DRESSER INDUSTRIES, INC.

(INSIC 196419) ON 10/12/84, WHILE IN HOT STANDBY, LIFT SETTINGS ON EIGHT (8) OF THE FIFTEEN (15) MAIN STEAM SAFETY VALVES WERE FOUND OUTSIDE THE TECH SPEC 3.7.1.1 OPERATING LIMITS OF PLUS OR MINUS 1%. OF THE EIGHT VALVES, ONE HAD A LIFT SETTING SLIGHTLY BELOW THE NORMAL OPERATING LIMIT, WHILE SEVEN (7) HAD LIFT SETTINGS ABOVE THEIR NORMAL OPERATING LIMITS. THE VALVES WERE ALL ADJUSTED TO WITHIN THE ALLOWABLE LIMITS AND TESTED SATISFACTORILY. THE ROOT CAUSE FOR THIS INCIDENT HAS BEEN ATTRIBUTED TO SETPOINT DRIFT. THE VALVES ARE TYPE 3707 RAX-RT21, MANUFACTURED BY THE DRESSER VALVE DIVISION. AS A RESULT OF THIS INCIDENT, ONE FAILED MAIN STEAM SAFETY VALVE WAS SENT TO WYLE LABORATORIES FOR OVERHAUL AND POSSIBLE REPAIR. THIS VALVE TESTED SATISFACTORILY AT WYLE; HOWEVER, THE VALVE DISC WAS REPLACED BASED ON A RECOMMENDATION FROM THE DRESSER REPRESENTATIVE. THIS VALVE WAS THEN RE-INSTALLED AT BEAVER VALLEY. A PORTION OF THE MAIN STEAM SAFETY VALVES WERE AGAIN TESTED DURING THE PLANT STARTUP FROM THE CURRENT REFUELING OUTAGE. THE VALVES CHOSEN FOR TESTING WERE THE FIVE (5) VALVES FROM THE 10/12/84 TEST IN WHICH THE LIFT SETPOINTS COULD NOT BE DETERMINED. DURING THIS TEST, TWO VALVES EXCEEDED THEIR OPERATIONAL LIMITS. THE CAUSE WAS AGAIN ATTRIBUTED TO SETPOINT DRIFT. THESE TWO VALVES WERE ADJUSTED TO WITHIN THEIR OPERATIONAL LIMITS AND RETURNED TO SERVICE.

[ 9] BEAVER VALLEY 1 DOCKET 50-334 LER 84-019 REV 1  
 UPDATE ON IMPROPER LIFT SETTINGS FOR PRESSURIZER CODE SAFETY VALVE.  
 EVENT DATE: 120884 REPORT DATE: 011185 NSSS: WE TYPE: PWR  
 VENDOR: TARGET ROCK CORP.

(NSIC 196420) THE B PRESSURIZER CODE SAFETY RELIEF VALVE WAS SENT OUT FOR TESTING DURING THE FOURTH REFUELING OUTAGE DUE TO ABNORMAL TEMPERATURE INDICATIONS RECEIVED DURING STARTUP FOLLOWING THE THIRD REFUELING OUTAGE. THE VALVE WAS TESTED FOR SET PRESSURE AND LEAKAGE. THE VALVE SUCCESSFULLY MET THE LEAKAGE TEST REQUIREMENTS ON BOTH THE PILOT AND MAIN DISCS. THE "AS RECEIVED" SET PRESSURE OF THE PILOT CARTRIDGE WAS NOT WITHIN THE ACCEPTABLE LIMITS OF 2485 + OR - 1%. THE SET PRESSURE OF THE CARTRIDGE WAS ADJUSTED AND THE PILOT SUCCESSFULLY RETESTED.

[ 10] BEAVER VALLEY 1 DOCKET 50-334 LER 85-016  
 MAINTENANCE AND TESTING ERRORS CAUSE OT-DELTA-T/OP-DELTA-T REACTOR TRIP.  
 EVENT DATE: 091685 REPORT DATE: 100785 NSSS: WE TYPE: PWR

(NSIC 196442) ON 9-16-85 TWO MAINTENANCE SURVEILLANCE PROCEDURES (MSP'S) WERE IN PROGRESS: 1) MSP 6.38, LOOP A OVERPOWER/OVERTEMPERATURE DELTA-T AND TWO MSP 46.04A, CONTROL ROOM CONTAINMENT HYDROGEN RECORDER. AS PER THE PROCEDURE MSP 6.38, THE LOOP A OT-DELTA-T AND OP-DELTA-T BISTABLES WERE TRIPPED. DURING THE PERFORMANCE OF MSP 46.04A, A CABLE SHIELD INADVERTENTLY GROUNDED THE HYDROGEN RECORDER'S POWER SUPPLY (VITAL BUS II). THIS CAUSED A SPIKE ON THE VITAL BUS, CAUSING THE LOOP B OT-DELTA-T AND OP-DELTA-T BISTABLES TO TRIP. THIS COMPLETED THE 2 OUT OF 3 OT-DELTA-T AND THE 2 OUT OF 3 OP-DELTA-T LOGICS OF THE 2 REACTOR TRIPS. BOTH TRIPS OCCURRED AT 10:26. THE PLANT RESPONDED NORMALLY AND THE OPERATORS STABILIZED THE PLANT USING THE REACTOR TRIP RESPONSE PROCEDURE. INVESTIGATION SHOWED THAT ELECTRICAL TAPE, WHICH HAD PROVIDED INSULATION FOR THE CABLE SHIELD, HAD COME LOOSE EXPOSING THE SHIELD AND ALLOWING IT TO GROUND THE POWER SUPPLY. THE TAPE WAS REPLACED WITH HEAT SHRINK TUBING. ALL SIMILAR RECORDERS WERE INSPECTED TO ENSURE THAT NO ADDITIONAL PROBLEMS EXISTED. NO FURTHER PROBLEMS WERE FOUND.

[ 11] BROWNS FERRY 1 DOCKET 50-259 LER 84-022 REV 3  
 UPDATE ON DESIGN OVERSIGHT ON LOAD SHED LOGIC AND SINGLE FAILURE CRITERIA.  
 EVENT DATE: 051284 REPORT DATE: 122884 NSSS: GE TYPE: BWR  
 OTHER UNITS INVOLVED: BROWNS FERRY 2 (BWR)  
 BROWNS FERRY 3 (BWR)

(NSIC 196310) AN IE BULLETIN 79-01B INVESTIGATION DETERMINED THAT A SINGLE FAILURE OR A LOSS OF COOLANT ACCIDENT AND A LOSS OF OFFSITE POWER, COULD CAUSE EQUIPMENT NECESSARY FOR ELECTRICAL BOARD ROOM COOLING TO BE LOST. THE CAUSE OF THIS CONDITION IS A DESIGN OVERSIGHT. SINGLE FAILURE OF A DISTRIBUTION BOARD COULD CAUSE THE LOSS OF REDUNDANT COOLING EQUIPMENT IN SOME ELECTRICAL BOARD ROOMS. DURING A LOCA IN CONJUNCTION WITH LOSS OF OFFSITE POWER, NORMAL VENTILATION FOR ELECTRICAL BOARD ROOMS IS LOAD SHED WITH NO PROVISIONS FOR MANUAL RESTART. AS INTERIM CORRECTIVE MEASURES, OPERATING INSTRUCTIONS HAVE BEEN REVISED TO ALLOW FOR RESTARTING THE NECESSARY EQUIPMENT WITHIN 1 HR BY USING ELECTRICAL JUMPERS AND/OR MECHANICALLY PROVIDING AN EXHAUST AIR DUCT OPENING. PRELIMINARY RESULTS OF A DESIGN STUDY ARE TO CHANGE THE ELEVATION 621 AIR CONDITIONER'S POWER FEEDS AND BYPASS THE FAN LOAD SHED LOGIC CONTACTS. FINALIZATION OF THIS DESIGN CONCEPT AND THE SCHEDULE FOR IMPLEMENTATION ARE EXPECTED TO BE COMPLETE AND ADDRESSED IN AN LER UPDATE BY 5-1-85.

[ 12] BROWNS FERRY 1 DOCKET 50-259 LER 85-047  
 IMPROPER HEAT TRACE TAPE ON TWO STANDBY LIQUID CONTROL LINES.  
 EVENT DATE: 011185 REPORT DATE: 101685 NSSS: GE TYPE: BWR  
 VENDOR: NELSON ELECTRIC

(INSC 196383) ON 1-11-85, THE TEMPERATURE OF 1 OF THE 2 STANDBY LIQUID CONTROL PUMP SUCTION LINES WAS FOUND INDICATING LOWER THAN THE HEATER CONTROL SETPOINT OF 80 F. INVESTIGATION REVEALED 1 OF THE 2 HEAT TRACE TAPE TRANSFORMERS HAD FAILED. THE REASON FOR THE TRANSFORMER FAILURE WAS INCORRECT HEAT TRACE TAPE (TOO HIGH OF A WATTAGE) INSTALLED ON BOTH HEAT TRACE CIRCUITS, THUS OVERLOADING THE TRANSFORMERS. THE INCORRECT HEAT TRACE WAS INSTALLED AS A RESULT OF A DISCREPANCY IN THE VENDOR SUPPLIED INFORMATION. THE NET EFFECT OF THE HEAT TRACE OVERSIZING WAS A REDUCTION IN THE RELIABILITY OF THE TRANSFORMERS TO THE EXTENT THAT A MORE FREQUENT THAN NORMALLY EXPECTED REPLACEMENT WAS REQUIRED. TWO REDUNDANT TRACE HEATER SYSTEMS EXIST, AND THE POSSIBILITY OF A SIMULTANEOUS LOSS OF BOTH SYSTEMS DUE TO THE RELIABILITY REDUCTION WAS LOW. THE SUCTION PIPING TEMPERATURE IS PHYSICALLY CHECKED ONCE PER SHIFT SO AN UNDETECTED PROBLEM WITH TECH SPEC TEMPERATURE LIMITS IS VERY UNLIKELY. TECH SPEC 3.4.A WAS MET THROUGHOUT THIS EVENT PERIOD IN THAT AT LEAST ONE HEAT TRACE CIRCUIT REMAINED OPERABLE AT ALL TIMES PREVENTING THE SODIUM PENTABORATE SOLUTION FROM FALLING BELOW SPECIFIED TEMPERATURES. THE PROPER SIZED (WATTAGE) HEATING TAPE WILL BE INSTALLED PRIOR TO THE RESTART OF UNIT 1.

[ 13]        BROWNS FERRY 1                                DOCKET 50-259                LER 85-049  
INOPERABILITY OF ALL DIESEL GENERATORS BECAUSE OF SEISMICALLY UNQUALIFIED BATTERY  
RACKS.  
EVENT DATE: 062385        REPORT DATE: 102585                NSSS: GE                        TYPE: BWR  
OTHER UNITS INVOLVED: BROWNS FERRY 2 (BWR)  
                              BROWNS FERRY 3 (BWR)

(NSIC 196328) DURING PERFORMANCE OF WORK ON THE DIESEL GENERATOR (DG) BATTERY RACKS, SEVERAL BATTERY RACK SUPPORT STUDS WERE BROKEN. ON JUNE 23, 1985, DURING A POST MAINTENANCE REVIEW OF A MAINTENANCE REQUEST USED TO REPAIR THE DG BATTERY RACK STUD, IT WAS DETERMINED THAT THE WELD REPAIR PROCEDURE USED WAS NOT SUITABLE FOR THE WELDING OF AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) A-307 MATERIAL. SUBSEQUENT INVESTIGATIONS DISCOVERED THE STUD MATERIAL USED ON THE BATTERY RACKS WAS NOT ASTM A-307 MATERIAL BUT ASTM A-325 MATERIAL WHICH IS NOT SUITABLE FOR WELDING BY TVA PROCEDURES. THE DGS WERE DECLARED INOPERABLE ON SEPTEMBER 24, 1985, BECAUSE OF THE BATTERY RACK STUDS SEISMIC CONCERNS AND AN UNRELATED SURVEILLANCE PROBLEM (LER 259/85041). THE DG BATTERY RACKS WERE BROUGHT INTO A SEISMICALLY QUALIFIED CONFIGURATION BY INSTALLATION OF STUDS MADE OF A MATERIAL QUALIFIED FOR THE APPLICATION.

[ 14]        BROWNS FERRY 1                                      DOCKET 50-259                      LER 85-041  
ALL DIESEL GENERATORS DECLARED INOPERABLE DUE TO MISSED SURVEILLANCE.  
EVENT DATE: 081485     REPORT DATE: 092785                  NSSS: GE                                  TYPE: BWR  
OTHER UNITS INVOLVED: BROWNS FERRY 2 (BWR)  
                             BROWNS FERRY 3 (BWR)

(NSIC 196326) DURING SYSTEM OPERATIONAL READINESS REVIEWS, IT WAS DETERMINED THAT THE MANUFACTURER'S MULTIYEAR DIESEL GENERATOR INSPECTION RECOMMENDATIONS HAVE NOT BEEN COMPLETELY IMPLEMENTED INTO THE MAINTENANCE PROGRAM. THE 6- AND 12-YEAR RECOMMENDATIONS FOR INTERNAL PARTS INSPECTIONS WERE NOT INCLUDED IN THE ANNUAL MAINTENANCE AND INSPECTIONS AS PART OF SURVEILLANCE INSTRUCTION 4.9.A.1.D. THIS IS CONSIDERED A MISSED SURVEILLANCE AND REQUIRES THE STANDBY DIESEL GENERATORS TO BE DECLARED TECHNICALLY INOPERABLE. THE VENDOR RECOMMENDATIONS WILL BE INCORPORATED IN PLANT INSTRUCTIONS AND IMPLEMENTED. CONCURRENT WITH THIS DETERMINATION, ALL EIGHT DIESEL GENERATOR BATTERY RACKS WERE UNABLE TO MEET SEISMIC REQUIREMENTS DUE TO THE HOLDDOWN STUD MATERIAL PROBLEMS. THIS ALSO RESULTED IN DECLARING THE STANDBY DIESELS INOPERABLE. REPAIR WORK TO RESTORE SEISMIC QUALIFICATION IS PROCEEDING (LER 259/85-049).

(NSIC 196210) RESULTS OF THE "AS FOUND" PRIMARY CONTAINMENT LOCAL LEAK RATE TESTS OBTAINED FOR UNIT 1 INDICATED LEAKAGE RATES IN EXCESS OF TECH SPEC REQUIREMENTS. TECH SPECS REQUIRE THAT LEAKAGE THROUGH EACH MAIN STEAM ISOLATION VALVE NOT EXCEED 11.5 STANDARD CUBIC FEET PER HOUR WHEN TESTED AT 25 POUNDS PER SQUARE INCH GAUGE, AND ALSO, THAT THE LEAKAGE FOR ALL PRIMARY CONTAINMENT PENETRATIONS AND ISOLATION VALVES NOT EXCEED 60 PERCENT OF LA. LEAKAGE FOR THE FOUR STEAMLINES WAS MEASURED TO BE 38.8, 18.7, 263, AND 50.1 STANDARD CUBIC FEET PER HOUR (SCFH), RESPECTIVELY. LEAKAGE MEASURED FOR EACH STEAMLINE IS A COMBINED LEAKAGE FOR BOTH THE INBOARD AND OUTBOARD PRIMARY CONTAINMENT ISOLATION VALVES. IN ADDITION, THE LEAKAGE THROUGH THE STEAMLINES COMBINED WITH LEAKAGE ON OTHER PRIMARY CONTAINMENT ISOLATION VALVES EXCEEDED 60 PERCENT LA. PRIOR TO THE RETURN OF UNIT 1 TO SERVICE, ALL PRIMARY CONTAINMENT PENETRATIONS WILL BE TESTED AND REPAIRED AS REQUIRED. THE RESULTS OF THESE TESTS WILL BE PROVIDED IN A SEPARATE REPORT IN ACCORDANCE WITH TECH SPEC 6.7.3.C.1.F.

[ 16]        BROWNS FERRY 1                                  DOCKET 50-259              LER 85-044  
USE OF UNSPECIFIED MATERIAL ON MAIN STEAM LINE AXIAL RESTRAINT.  
EVENT DATE: 081985     REPORT DATE: 091785     NSSS: GE              TYPE: BWR  
OTHER UNITS INVOLVED: BROWNS FERRY 2 (BWR)  
                             BROWNS FERRY 3 (BWR)

(NSIC 196211) ON AUGUST 19, 1985, DURING THE UNIT 1 REFUELING OUTAGE, PLANT PERSONNEL DISCOVERED SEVEN NAILS INSTALLED ON THE UNIT 1 MAIN STEAM LINE AXIAL SUPPORTS INSTEAD OF COTTER PINS. THE NAILS HAD APPARENTLY BEEN INSTALLED DURING CONSTRUCTION INSTEAD OF THE SPECIFIED 3/8-INCH STAINLESS STEEL COTTER PINS. BECAUSE OF THE STEAM TUNNEL ENVIRONMENT, CORROSION OF THE NAILS COULD EVENTUALLY CAUSE THE NAILS TO FAIL IN SUCH A MANNER THAT THE CLEVIS PIN MOVEMENT WOULD NOT BE RESTRAINED. THE MAIN STEAM LINE OUTSIDE THE DRYWELL COULD BE DAMAGED AS A RESULT OF RESTRAINT FAILURE DUE TO A LOSS OF THE CLEVIS PIN. PRIMARY CONTAINMENT INTEGRITY WOULD NOT BE EFFECTED. INSPECTIONS ON UNIT 2, WHICH WAS IN A REFUELING OUTAGE, AND ON UNIT 3, WHICH WAS IN COLD SHUTDOWN, REVEALED ONE COTTER PIN MISSING ON UNIT 2. THE CLEVIS PIN DID NOT SHOW ANY SIGNS OF MOVEMENT. COTTER PINS WILL BE INSTALLED ON UNITS 1 AND 2 BY SEPTEMBER 30, 1985.

[ 17]        BROWNS FERRY 1                      DOCKET 50-259                      LER 85-00  
APRM SURVEILLANCE TEST CAUSES REACTOR SCRAM.  
EVENT DATE: 082505     REPORT DATE: 092405     NSSS: GE                      TYPE: BWR  
VENDOR: SQUARE D COMPANY

(NSIC 196270) ON 8-25-85 A FULL SCRAM INADVERTENTLY OCCURRED ON UNIT 1 DURING PERFORMANCE OF A WEEKLY SURVEILLANCE INSTRUCTION ON THE APRM. THE UNIT WAS IN A REFUELING OUTAGE WITH ALL THE CONTROL RODS FULLY INSERTED. THE INADVERTENT SCRAM OCCURRED WHEN AN APRM MODE SWITCH FOR THE CHANNEL UNDER TEST WAS PLACED IN THE 'STANDBY' POSITION IN ACCORDANCE WITH THE SI. DIAGNOSIS OF THE EVENT WAS HAMPERED BY PROBLEMS THAT WERE EXPERIENCED WITH THE SEQUENTIAL EVENTS RECORDER (SER) AT THE TIME OF THE SCRAM. DURING THE INVESTIGATION OF THE SCRAM A DEFECTIVE APRM BYPASS SWITCH IN THE ALTERNATE APRM GROUP WAS FOUND AND REPLACED. THE INVESTIGATION DID NOT, HOWEVER, CONCLUSIVELY DETERMINE THE CAUSE OF THE SCRAM. ON 9-8-85 A SIMILAR SCRAM INADVERTENTLY OCCURRED ON UNIT 1 DURING PERFORMANCE OF THE SAME SI. THIS EVENT IS CURRENTLY UNDER INVESTIGATION AND WILL BE ADDRESSED IN A SEPARATE LER (259/85-048).

[ 18]        BROWNS FERRY 1                                DOCKET 50-259        LER 85-045  
 INADEQUATE EECW FLOW TO RESIDUAL HEAT REMOVAL AND CORE SPRAY ROOM COOLERS.  
 EVENT DATE: 090485        REPORT DATE: 100485        NSSS: GE        TYPE: BWR  
 OTHER UNITS INVOLVED: BROWNS FERRY 3 (BWR)

(NSIC 196435) DURING PERFORMANCE OF TECHNICAL INSTRUCTION (TI)-33 (EMERGENCY EQUIPMENT COOLING WATER FLOW VERIFICATION) ON 9-4-85, EECW FLOW TO BOTH LOOPS OF THE CORE SPRAY ROOM COOLERS ON UNIT 1 AND LOOP II OF THE RHR ROOM COOLER ON UNIT 3 WAS FOUND LOWER THAN SPECIFIED MINIMUMS. FOLLOWING COMPLETION OF THIS TEST ON 9-5-85, THE REQUIRED FLOWS TO THE CORE SPRAY AND RHR ROOM COOLERS WERE RESET TO THEIR REQUIRED VALUES. THE EECW SYSTEM IS A RAW WATER SYSTEM THAT SUPPLIES COOLING WATER TO STANDBY EMERGENCY EQUIPMENT. OVER A PERIOD OF TIME, FLOW BLOCKAGE TO SOME COMPONENTS CAN OCCUR AS A RESULT OF SILT ACCUMULATION, BIOFOULING, AND CORROSION. TO ENSURE THAT ADEQUATE FLOW TO THESE COMPONENTS IS MAINTAINED, FLOW TO THESE COMPONENTS IS RESET ONCE EVERY 6 WEEKS USING TI-33. AS A RESULT OF FINDING THESE INADEQUATE FLOWS, AN EVALUATION OF PAST TI-33 DATA WILL BE PERFORMED TO EVALUATE WHETHER OR NOT THE FREQUENCY FOR PERFORMANCE OF THIS INSTRUCTION SHOULD BE INCREASED. IN ADDITION, TAGS WILL BE HUNG ON ALL THROTTLE VALVES THAT REGULATE EECW FLOWS TO THESE COMPONENTS TO PREVENT INADVERTENT MANIPULATION OF THESE VALVES.

[ 19]        BROWNS FERRY 1                                DOCKET 50-259        LER 85-048  
 APRM SURVEILLANCE TEST CAUSES REACTOR SCRAM.  
 EVENT DATE: 090885        REPORT DATE: 100885        NSSS: GE        TYPE: BWR

(NSIC 196327) ON SEPTEMBER 8, 1985, AN INADVERTENT SCRAM OCCURRED ON UNIT 1 DURING PERFORMANCE OF A WEEKLY SURVEILLANCE INSTRUCTION (SI) ON THE AVERAGE POWER MONITORS (APRMS). THE UNIT WAS IN A REFUELING OUTAGE WITH ALL CONTROL RODS FULLY INSERTED. THE INADVERTENT SCRAM OCCURRED WHEN AN APRM MODE SWITCH FOR THE CHANNEL UNDER TEST WAS PLACED IN THE "STANDBY" POSITION IN ACCORDANCE WITH THE SI. THE COMPUTER LOGS INDICATED THAT A HALF SCRAM ON THE REACTOR PROTECTION SYSTEM PRODUCED BY THE PREVIOUSLY TESTED APRM CHANNEL HAD NOT RESET. THE SI WAS REPEATED AS A TEST, BUT THE FAILURE OF THE RPS CHANNEL TO RESET COULD NOT BE REPRODUCED. TO PREVENT SIMILAR RECURRENCE, THE SI WILL BE REVISED TO ADD EXPLICIT STEPS TO VERIFY THAT THE HALF SCRAM IS FULLY RESET AND THE SCRAM SOLENOID GROUP INDICATING LIGHTS ARE ILLUMINATED BEFORE PROCEEDING TO TEST THE NEXT APRM CHANNEL. PREVIOUS EVENT 259/85-043.

[ 20]        BROWNS FERRY 1                                DOCKET 50-259        LER 85-046  
 TESTING ERROR CAUSES INOPERABLE TURBINE BUILDING EFFLUENT MONITOR.  
 EVENT DATE: 091285        REPORT DATE: 101185        NSSS: GE        TYPE: BWR  
 OTHER UNITS INVOLVED: BROWNS FERRY 2 (BWR)  
                               BROWNS FERRY 3 (BWR)

(NSIC 196382) ON 9-12-85, A PERSONNEL ERROR RESULTED IN THE REQUIREMENTS OF TECH SPEC 3.8.B.8 NOT BEING MET. A CHEMICAL LAB TECHNICIAN INADVERTENTLY LEFT THE CONTINUOUS AIR MONITOR (CAM) SAMPLE HOSE TO THE TURBINE BLDG VENTILATION CAM DISCONNECTED WHICH WAS NOT PER APPROVED PROCEDURES. THIS LEFT A RELEASE PATH UNMONITORED. THE SURVEILLANCE INSTRUCTION INVOLVED, SI 4.8.B.1.A, HAS BEEN REVISED TO REQUIRE SECOND-PARTY VERIFICATION FOR ASSURING PROPER CAM CONFIGURATION UPON SOURCE CHECK COMPLETION. AS THE CAM WAS SOURCE CHECKED ON 9-13-85, THE DISCONNECTED HOSE WAS DISCOVERED AND WAS RECONNECTED. THIS ENDED THE EVENT. THE PERSON INVOLVED IS BEING DISCIPLINED; AND WITH THE APPROPRIATE PROCEDURE REVISION, THE PROPER CORRECTIVE ACTION WILL BE COMPLETED.

[ 22]        BROWNS FERRY 3                      DOCKET 50-296                      LER 84-001 REV 1  
UPDATE ON INADEQUATE COOLING WATER TO DIESEL GENERATORS.  
EVENT DATE: 010384     REPORT DATE: 121484     NSSS: GE                      TYPE: BWR  
VENDOR: GENERAL MOTORS

[ 23]        BROWNS FERRY 3                                  DOCKET 50-296                      LER 85-009  
INTERNAL COMPONENT FAILURES OF RHR PUMP MOTORS.  
EVENT DATE: 032085     REPORT DATE: 092085                NSSS: GE                              TYPE: BWR  
OTHER UNITS INVOLVED: BROWNS FERRY 1 (BWR)  
VENDOR: GENERAL ELECTRIC CO.

[ 24]        BROWNS FERRY 3                                DOCKET 50-296        LER 85-022  
RADIATION MONITOR TESTING ERROR CAUSES INADVERTENT CONTAINMENT ISOLATION.  
EVENT DATE: 082385    REPORT DATE: 091385        NSSS: GE        TYPE: BWR

(NSIC 196221) AN INADVERTENT CONTAINMENT ISOLATION OCCURRED DURING PERFORMANCE OF A SURVEILLANCE INSTRUCTION ON A UNIT 3 REACTOR BLDG EXHAUST RADIATION MONITOR. THE ISOLATION OCCURRED WHEN A TEMPORARY JUMPER WAS REMOVED WHILE THE RADIATION MONITOR MODE SWITCH WAS IN THE 'TRIP TEST' POSITION. THE EVENT IS CATEGORIZED AS A PROCEDURAL DEFICIENCY IN THAT THE SURVEILLANCE INSTRUCTION DID NOT REQUIRE THAT THE RM MODE SWITCH BE PLACED IN 'OPERATE' PRIOR TO REMOVAL OF THE JUMPER. THE RM

SWITCH WAS RETURNED TO THE 'OPERATE' POSITION AND THE ISOLATION RESET. TO PREVENT SIMILAR OCCURRENCES THE SI STEP SEQUENCE WILL BE REVISED.

[ 25] BRUNSWICK 1 DOCKET 50-325 LER 84-003 REV 1  
 UPDATE ON HPCI TURBINE SPEED CONTROLLER FAILURE.  
 EVENT DATE: 021984 REPORT DATE: 091984 NSSS: GE TYPE: BWR  
 VENDOR: WOODWARD GOVERNOR COMPANY

(NSIC 196321) ON FEBRUARY 19, 1984, AT 2115, WHILE PERFORMING AN OPERABILITY TEST OF THE UNIT 1 HIGH PRESSURE COOLANT INJECTION (HPCI) SYSTEM, IT WAS DISCOVERED THAT SPEED CONTROL OF THE HPCI TURBINE WAS VERY ERRATIC. AT THE TIME THE REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM WAS OPERABLE. THE HPCI TURBINE ELECTRONIC SPEED CONTROLLER (EGM), WOODWARD GOVERNOR CO. PART NO. 9903-14, WAS FOUND TO BE NOT FUNCTIONING PROPERLY. THE SUBJECT EGM UNIT WAS REPLACED AND THE HPCI SYSTEM WAS SATISFACTORILY TESTED AND RETURNED TO SERVICE ON FEBRUARY 23, 1984, AT 2115. THE FAILED EGM UNIT WAS SENT TO THE MANUFACTURER FOR ASSESSMENT OF THE UNIT FAILURE. HOWEVER, NO PROBLEMS WERE FOUND WITH THE UNIT. FOLLOWING THE RETURN OF THE EGM UNIT FROM THE MANUFACTURER, FURTHER TESTING OF THE EGM UNIT WAS CONDUCTED BY THE PLANT I&C MAINTENANCE GROUP. THIS TESTING WAS UNSUCCESSFUL IN REVEALING ANY PROBLEMS WITH THE EGM UNIT. DUE TO THE UNDETERMINED CAUSE OF FAILURE INVOLVING THE SUBJECT EGM UNIT, IT HAS BEEN PURGED FROM THE PLANT STORES INVENTORY.

[ 26] BRUNSWICK 1 DOCKET 50-325 LER 84-033 REV 1  
 UPDATE ON FAILURE OF COMMON CHLORINE DETECTION SYSTEM TO MEET FSAR/TECHNICAL SPECIFICATIONS DESIGN CRITERIA.  
 EVENT DATE: 111984 REPORT DATE: 031485 NSSS: GE TYPE: BWR  
 OTHER UNITS INVOLVED: BRUNSWICK 2 (BWR)

(NSIC 196368) WHILE PERFORMING A DESIGN REVIEW OF THE CONTROL BLDG EMERGENCY VENTILATION SYSTEM (CB HVAC) FOLLOWING DISCUSSIONS WITH THE RESIDENT NRC INSPECTOR'S OFFICE, IT WAS DETERMINED THAT THE CHLORINE ISOLATION PORTION OF THE SYSTEM DID NOT SATISFY THE DESIGN CRITERIA ESTABLISHED IN THE FSAR OR THE BASIS TO TECH SPECS. THE BASIS TO TECH SPEC 3/4 3.5.5 (CHLORINE DETECTION SYSTEM) STATES THAT THE CHLORINE DETECTION SYSTEM IS CONSISTENT WITH REG GUIDE 1.95. REG GUIDE 1.95 AND THE FSAR (SECTION 6.4.2.2) BOTH INDICATE THAT THE CB HVAC WILL BE ISOLATED BY EITHER A HIGH CHLORINE SIGNAL AT THE CONTROL BLDG AIR INTAKE PLENUM OR BY A HIGH CHLORINE SIGNAL AT THE CHLORINE STORAGE LOCATION. CONTRARY TO THESE REQUIREMENTS, THE CB HVAC WILL ONLY ISOLATE ON A HIGH CHLORINE SIGNAL IN THE CONTROL BLDG AIR INTAKE PLENUM. TO CORRECT THIS PROBLEM, A PLANT MODIFICATION WILL BE IMPLEMENTED TO BRING THE CHLORINE DETECTION SYSTEM INTO CONFORMANCE WITH THE REQUIRED DESIGN CRITERIA. UNTIL THE PLANT MODIFICATION IS COMPLETED AND MADE OPERATIONAL, ADDITIONAL SURVEILLANCE REQUIREMENTS HAVE BEEN IMPOSED ON THE EXISTING SYSTEM BY THE PLANT NUCLEAR SAFETY COMMITTEE (PNSC) TO ASSURE ADEQUATE CHLORINE PROTECTION FOR THE OPERATIONS PERSONNEL IN THE CONTROL ROOM.

[ 27] BRUNSWICK 1 DOCKET 50-325 LER 85-046  
 INADEQUATE RESPONSE TIME TESTING OF CONTAINMENT ISOLATION INSTRUMENT LOGIC CIRCUITRY.  
 EVENT DATE: 082185 REPORT DATE: 091985 NSSS: GE TYPE: BWR  
 OTHER UNITS INVOLVED: BRUNSWICK 2 (BWR)

(NSIC 196399) ON 8-21-85, IT WAS IDENTIFIED PLANT PROCEDURES DID NOT ADEQUATELY RESPONSE TIME TEST CERTAIN LOGIC CIRCUITRY RELAYS OF THE SECONDARY CONTAINMENT ISOLATION INSTRUMENTATION. THE TESTING REQUIREMENT IS REFLECTED BY TECH SPECS TABLE 3.3.2-3, ITEMS 2.A, 2.B, AND 2.C. THE SUBJECT RESPONSE TIME TESTS ARE FOR THE REACTOR BLDG EXHAUST VENTILATION HIGH RADIATION (PERIODIC TEST PT-45.2.4-1, (-2)), HIGH DRYWELL PRESSURE (PT-A24.2), AND REACTOR LOW WATER LEVEL NO. 2

(PT-A22.2-1 (-2)). THE PROCEDURAL PROBLEMS APPLY TO UNITS 1 AND 2 AND WERE DISCOVERED DURING A REVIEW AND REWRITING OF PLANT MAINTENANCE SURVEILLANCE PROCEDURES. THE PROCEDURAL PROBLEMS RESULTED FROM INSUFFICIENT TECHNICAL REVIEW AND INADEQUATE PROCEDURAL OVERLAP CONTROLS DURING ORIGINAL AND SUBSEQUENT PROCEDURE DEVELOPMENT. ON 8-25-85, THE SUBJECT LOGIC CIRCUITRY WAS SATISFACTORILY TESTED USING A PLANT SPECIAL PROCEDURE. BY 12-31-85, SYSTEM TEST DESCRIPTIONS WILL BE DEVELOPED AND IMPLEMENTED FOR RESPONSE TIME TESTS TO PROVIDE ENHANCED DEFINITION AND CONTROL OF PROCEDURAL OVERLAP POINTS.

[ 28]        BRUNSWICK 1                                DOCKET 50-325        LER 85-047  
INADVERTENT CONTAINMENT ISOLATION AND CORE SPRAY INITIATION.  
EVENT DATE: 082685        REPORT DATE: 092585        NSSS: GE                TYPE: BWR

(NSIC 196350) ON 8-26-85, AT 1520, WITH UNIT 1 IN A REFUEL/MAINTENANCE OUTAGE, AUTO-INITIATION OF 1A AND 1B CORE SPRAY AND AUTO-START OF DG'S 1-4 OCCURRED DUE TO A LOCA SIGNAL. A PRIMARY CONTAINMENT GROUP 1, AUTO-ISOLATION OF THE REACTOR BLDG VENTILATION SYSTEM, AND AUTO-START OF THE REACTOR BLDG STANDBY GAS TREATMENT (SBGT) TRAIN 1B OCCURRED DUE TO A LOW LEVEL NO. 2 SIGNAL. SBGT TRAIN 1A AND THE RHR SYSTEM PUMPS OF THE B LOW PRESSURE COOLANT INJECTION (LPCI) LOOP WERE UNDER EQUIPMENT CLEARANCE AND THE A LPCI LOOP WAS IN SHUTDOWN COOLING. THE REACTOR HEAD WAS REMOVED, THE REACTOR CAVITY FLOODED, AND THE FUEL POOL GATES REMOVED. THE CS PUMPS WERE SECURED SHORTLY AFTER EVENT DISCOVERY. THE LOCA SIGNAL RESULTED FROM A LOW LEVEL NO. 3 SIGNAL FROM REACTOR LEVEL INSTRUMENTS N031A AND C. THE INSTRUMENTS SAW A PRESSURE SPIKE ON THEIR COMMON REFERENCE SENSING LEG, WHICH IS SHARED BY REACTOR PRESSURE INSTRUMENT N021A. N021A WAS BEING RETURNED TO SERVICE FOLLOWING TESTING WHEN RESIDUAL PRESSURE FROM TEST EQUIPMENT VENTED INTO THE SUBJECT REFERENCE SENSING LEG CAUSING THE PRESSURE SPIKE. THE SUBJECT TEST PROCEDURE REGARDING N021A HAS BEEN REVISED TO ENSURE VENTING PRIOR TO RETURNING TO SERVICE. INVOLVED PLANT TECHNICIANS HAVE BEEN COUNSELED TO EXERCISE CAREFUL MANIPULATIONS AND CAUTION DURING FUTURE SIMILAR TESTING EVOLUTIONS.

[ 29]        BRUNSWICK 1                                DOCKET 50-325        LER 85-048  
AUTOMATIC START SIGNALS TO CONTROL BUILDING EMERGENCY AIR FILTRATION SYSTEM.  
EVENT DATE: 090385        REPORT DATE: 100285        NSSS: GE                TYPE: BWR  
OTHER UNITS INVOLVED: BRUNSWICK 2 (BWR)

(NSIC 196351) ON 9-3-85 AT 0347, 0416, AND 0424, AUTOMATIC START SIGNALS TO THE UNITS 1 AND 2 COMMON CONTROL BLDG EMERGENCY AIR FILTRATION (CBEAF) SYSTEM WERE INITIATED BY THE BLDG FIRE DETECTION SYSTEM. THE CBEAF SYSTEM WAS ALREADY IN SERVICE AS IT HAD BEEN MANUALLY STARTED PRIOR TO THESE EVENTS. UNIT 1 WAS IN A REFUEL/MAINTENANCE OUTAGE AND UNIT 2 WAS AT 100%. AFTER EACH EVENT, THE SUBJECT FIRE ALARM WAS RESET FOLLOWING VERIFICATION THAT AN ACTUAL FIRE CONDITION DID NOT EXIST. CONTROL OPERATORS OF BOTH UNITS BECAME AWARE OF THESE EVENTS THROUGH CONTROL ROOM ALARM ANNUNCIATORS. THE CAUSE OF THE FIRE ALARM AT 0347 WAS NOT DETERMINED. THE FIRE ALARMS AT 0416 AND 0424 ARE ATTRIBUTED TO CONDENSATION FROM THE UNIT 1 COMPUTER ROOM AIR CONDITIONER, WHICH LEAKED ON A ROOM FIRE DETECTOR. THE SUBJECT CONDENSATION LEAK WAS REPAIRED. AS A RESULT OF PRIOR SIMILAR EVENTS (SUCH AS THAT ALREADY REPORTED IN LER 1-85-040) INVOLVING AUTO STARTS OF THE CBEAF SYSTEM DUE TO SPURIOUS FIRE ALARMS, A PLANT MODIFICATION WILL BE IMPLEMENTED TO REMOVE INPUT OF SELECTED FIRE DETECTORS FROM THE CBEAF SYSTEM INITIATION LOGIC AND THEREBY REDUCE THE NUMBER OF CHALLENGES TO THE SYSTEM. STARTING OF THE CBEAF SYSTEM PLACES IT INTO ITS DESIGN MODE OF OPERATION.

[ 30]        BRUNSWICK 1                                DOCKET 50-325        LER 85-049  
INADEQUATE RESPONSE TIME TESTING OF MAIN STEAM LINE TUNNEL TEMPERATURE  
CONTAINMENT ISOLATION INSTRUMENTATION LOGIC CIRCUITRY.  
EVENT DATE: 090585        REPORT DATE: 100385        NSSS: GE                TYPE: BWR  
OTHER UNITS INVOLVED: BRUNSWICK 2 (BWR)

(NSIC 196285) ON 9-5-85, IT WAS IDENTIFIED PLANT PROCEDURES DID NOT ADEQUATELY RESPONSE TIME TEST CERTAIN RELAYS OF THE PRIMARY CONTAINMENT ISOLATION INSTRUMENTATION LOGIC. THE TESTING REQUIREMENT IS REFLECTED BY TECH SPECS TABLE 3.3.2-3, ITEM 1.D. THE SUBJECT RESPONSE TIME TESTS ARE FOR THE MAIN STEAM LINE TUNNEL TEMPERATURE SWITCHES (PERIODIC TEST PT-45.2.1) AND PRIMARY CONTAINMENT ISOLATION VALVES CIRCUIT (PT-45.2.6). THE UNTIMED LOGIC SUPPORTS THE PCI SYSTEM EXCLUSIVELY. THE PROCEDURAL PROBLEMS APPLY TO UNITS 1 AND 2 AND WERE DISCOVERED DURING A REVIEW AND REWRITING OF PLANT MAINTENANCE SURVEILLANCE PROCEDURES. UNIT 1 WAS IN A REFUEL MAINTENANCE OUTAGE AND PREPARATIONS WERE UNDERWAY FOR STARTUP OF UNIT 2. THE PROCEDURAL PROBLEMS ARE ATTRIBUTED TO INSUFFICIENT TECHNICAL REVIEW DURING ORIGINAL PROCEDURAL DEVELOPMENT. ON 9-7-85, THE SUBJECT LOGIC CIRCUITRY WAS SATISFACTORILY TESTED USING A PLANT SPECIAL PROCEDURE. AS PREVIOUSLY REPORTED IN LERS 1-85-020 AND 1-85-046, SYSTEM TEST DESCRIPTIONS WILL BE DEVELOPED AND IMPLEMENTED BY 12-31-85 FOR RESPONSE TIME TESTS TO PROVIDE ENHANCED DEFINITION AND CONTROL OF PROCEDURAL OVERLAP POINTS.

[ 31]        BRUNSWICK 1                                DOCKET 50-325        LER 85-051  
WORKMAN BUMPS LPRM CABLE CAUSING INADVERTENT RPS ACTUATION.  
EVENT DATE: 092185        REPORT DATE: 101885        NSSS: GE        TYPE: BWR

(NSIC 196400) DURING A UNIT 1 REFUEL/MAINTENANCE OUTAGE ON 9-21-85 AT 0355, AN UPSCALE TRIP OF REACTOR POWER INTERMEDIATE RANGE MONITOR (IRM) D OCCURRED WHILE UNDERVESSEL WORK INVOLVING CONTROL ROD DRIVES WAS IN PROGRESS. AT THE TIME, THE RPS SHORTING LINKS WERE REMOVED. CONSEQUENTLY, AN AUTO TRIP OF BOTH RPS LOGIC CHANNELS A AND B RESULTED. BOTH LOGIC CHANNELS WERE RESET SHORTLY THEREAFTER. THIS EVENT IS ATTRIBUTED TO THE SUBJECT WORK WITHIN THE CLOSE CONFINES OF THE UNDERVESSEL AREA. AN INVOLVED CONTRACT EMPLOYEE, WHO WAS DRESSED OUT IN AN AIRLINE BUBBLE SUIT, ACCIDENTLY BUMPED THE SIGNAL CABLE OF LOCAL POWER RANGE MONITOR (LPRM) 3A-04-29, WHICH INPUTS TO IRM D. AN UPSCALE ELECTRONIC NOISE SPIKE IN THE LPRM OCCURRED AND THE EVENT RESULTED. THE INPUT OF THE SUBJECT LPRM TO IRM D WAS BYPASSED AND THE RPS TRIP SIGNAL WAS RESET. A HIGH VOLTAGE AND RESISTANCE CHECK OF THE SUBJECT LPRM DID NOT REVEAL PROBLEMS WHICH MAY HAVE CONTRIBUTED TO THE EVENT. FOLLOWING FURTHER TESTING AND ANY REQUIRED REPAIRS AND/OR ADJUSTMENTS, THE LPRM WILL BE RETURNED TO SERVICE.

[ 32]        BRUNSWICK 1                                DOCKET 50-325        LER 85-052  
RADIATION MONITOR FAILURE CAUSES CONTAINMENT ISOLATION.  
EVENT DATE: 092485        REPORT DATE: 101885        NSSS: GE        TYPE: BWR  
VENDOR: GENERAL ELECTRIC CORP. (NUCLEAR ENG DIV)

(NSIC 196401) AT APPROX 2125 ON 9-24-85, A UNIT 1 'DOWNSCALE-INOPERATIVE' ALARM ANNUNCIATION FOR THE UNIT REACTOR BLDG VENTILATION EXHAUST RADIATION MONITORS, 1-D12-RM-N010A AND B, OCCURRED. WHILE INVESTIGATING THE ANNUNCIATION, THE UNIT SHIFT FOREMAN MANUALLY TAPPED ON THE METER FACE OF HIGH VOLTAGE POWER SUPPLY, 1-D12-K609-1A, OF MONITOR N010A. A PRIMARY CONTAINMENT GROUP 6 ISOLATION AND AUTO START OF THE REACTOR BLDG STANDBY GAS TREATMENT SYSTEM OCCURRED. IN ACCORDANCE WITH TECH SPECS, N010A WAS DECLARED INOPERABLE AND PLACED IN THE TRIPPED CONDITION. THIS EVENT RESULTED FROM A COLD SOLDER JOINT AT AN OUTPUT LEAD CONNECTION OF THE K609-1A HIGH VOLTAGE TRANSFORMER. THE COLD SOLDER JOINT, IN CONJUNCTION WITH THE MINIMAL FORCE FROM THE INVESTIGATIVE METER FACE TAPPING, CAUSED FLUCTUATIONS IN THE K609-1A OUTPUT FROM THE NORMAL 575V DC. CONSEQUENTLY, N010A ACTUATED TO INITIATE THE GROUP 6 AND SBTG START LOGIC. THE SUBJECT LEAD WAS RESOLDERED TO RESTORE DESIRED OUTPUT VOLTAGE FROM K609-1A, GE PART NO. 112C2235-G4, AND WITHIN 2 HRS THE N010A MONITOR WAS RETURNED TO SERVICE.

[ 34]        BRUNSWICK 2                                DOCKET 50-324                LER 85-006  
INADVERTENT ISOLATION OF HPCI DURING TESTING.  
EVENT DATE: 090685    REPORT DATE: 100285        NSSS: GE                        TYPE: BWR

[ 35] BYRON 1 DOCKET 50-454 LER 84-012 REV 1  
UPDATE ON REMOVAL OF NON-ESF BUS RESULTS IN DE-ENERGIZING SEVERAL RADIATION  
MONITORS.  
EVENT DATE: 111084 REPORT DATE: 012485 NSSS: WE TYPE: PWR  
OTHER UNITS INVOLVED: BYRON 2 (PWR)

(NSIC 196020) A UNIT 2 NON-ESF ELECTRICAL BUS WAS POWERED DOWN RESULTING IN AN UNEXPECTED LOSS OF POWER TO 5 PROCESS RADIATION MONITORS REQUIRED TO BE OPERABLE BY TECH SPECS. RADIATION MONITORING OF THE GAS DECAY TANK EFFLUENT, LIQUID RADWASTE EFFLUENT, STATION BLOWDOWN, AND UNIT 1 AND UNIT 2 AUX BLDG VENT STACK EFFLUENT WAS AFFECTED. THE TECH SPEC ACTION REQUIREMENTS WERE INITIATED IMMEDIATELY FOR THE 5 MONITORS. THE POWER SUPPLY BOOK DID NOT CLEARLY IDENTIFY THESE MONITORS AS BEING POWERED FROM THE NON-ESF BUS. THEREFORE, THE MONITORS' POWER SUPPLY WAS NOT EVALUATED AS A PIECE OF EQUIPMENT THAT WOULD BE LOST DURING THE BUS OUTAGE. THE POWER SUPPLY BOOK HAS BEEN CORRECTED.

[ 36] BYRON 1 DOCKET 50-454 LER 84-020 REV 1  
UPDATE ON SOURCE RANGE CHANNEL SPIKING.  
EVENT DATE: 112584 REPORT DATE: 011785 NSSS: WE TYPE: PWR

(NSIC 196322) WHILE IN OPERATING MODE 5 (INITIAL CORE LOADING), SOURCE RANGE CHANNEL N32 INDICATED NOISE SPIKES ON FOUR OCCASIONS (2 ON 11/25 AND 2 ON 11/30) RESULTING IN CONTAINMENT EVACUATION ALARMS. SOURCE RANGE CHANNEL N31 INDICATED NO INCREASE IN COUNT RATE AND RCS BORON SAMPLES SHOWED NO ABNORMALITY. AFTER SURVEYING CONTAINMENT AND DETERMINING THAT CONTAINMENT WAS SAFE, PERSONNEL WERE ALLOWED TO RETURN. MODIFICATIONS AND IMPROVEMENTS HAVE BEEN IMPLEMENTED ON THE SOURCE RANGE CHANNELS AS THE RESULT OF A COMPREHENSIVE ACTION PLAN, AND THE BYRON SOURCE RANGE CHANNELS ARE NOW PERFORMING ACCEPTABLY. A CORRELATION WAS NOTED BETWEEN A DEFECTIVE VAPOR LIGHT IN THE VICINITY OF THE SOURCE RANGE PREAMPLIFIERS TRYING TO START (IT HAD A BAD BALLAST AND CONTINUALLY CYCLED THROUGH ITS STARTUP) AND NOISE PICKUP. THE LIGHT WAS POWERED-DOWN AND A SIGNIFICANT DECREASE IN NOISE RESULTED. PER WESTINGHOUSE RECOMMENDATION, VAPOR LIGHTS SHOULD NOT BE USED IN THE VICINITY OF THE PREAMPLIFIERS. THE NOISE WAVEFORM ON THE SOURCE RANGE CHANNEL CABLES WAS MONITORED AND FOUND TO BE PARTICULARLY EXCESSIVE ON THE CABLES BETWEEN THE PROCESS COMPUTER AND NIS RACK. THE CABLES RAN IN CLOSE PROXIMITY TO A CABLE FROM THE CONDENSATE-CONDENSATED BOOSTER PUMP 1A STATOR TEMPERATURE RTD. WHEN THE PUMP WAS STOPPED THE NOISE LEVEL DROPPED TO ZERO. ANOTHER CORRELATION NOTED DURING TROUBLESHOOTING WAS BETWEEN OPENING DOORS ON THE 7300 PROCESS INSTRUMENTATION RACKS AND NOISE SPIKES.

[ 37]      BYRON 1                                  DOCKET 50-454      LER 85-063  
TURBINE TRIP WITH PERMISSIVE P-7 NOT LOCKED IN CAUSES REACTOR TRIP.  
EVENT DATE: 070885    REPORT DATE: 080785      NSSS: WE              TYPE: PWR

(NSIC 196253) DURING UNIT 1 STARTUP, CONTROL ROD P-8 BECAME MISALIGNED FROM ITS BANK. WITH CONTINUED CONTROL BANK MOTION, THE ROD BECAME FURTHER MISALIGNED. SINCE T-AVE WAS DECREASING, THE DECISION WAS MADE TO TRIP THE TURBINE. THE TURBINE TRIP CAUSED A REACTOR TRIP BECAUSE PERMISSIVE P-7 (REACTOR AND TURBINE POWER BELOW 10%) WAS NOT ACTUATED. THE OPERATOR FAILED TO VERIFY THAT THE P-7 LIGHT WAS LIT PRIOR TO TRIPPING THE TURBINE. PERMISSIVE P-7 IS ACTUATED AND WILL PREVENT A REACTOR TRIP ON A TURBINE TRIP ONLY IF BOTH NUCLEAR POWER (P-10) AND TURBINE POWER (P-13) ARE BELOW 10%. THE TURBINE POWER SIGNAL INPUT TO P-7 IS GENERATED BASED ON TURBINE IMPULSE STAGE PRESSURE. AT THIS TIME TURBINE IMPULSE STAGE PRESSURE INSTRUMENTATION WAS GIVING A FALSE HIGH INDICATION OF TURBINE POWER. THIS PREVENTED P-7 FROM ACTUATING EVEN THOUGH BOTH THE REACTOR AND TURBINE POWER WERE BELOW 10%. RESCALING OF IMPULSE PRESSURE WILL BE DONE AS A PART OF THE STARTUP TESTING PROGRAM BASED ON DATA OBTAINED AT 100% POWER. THIS WILL PROVIDE CORRECT INDICATION FOR THE OPERATOR. IN ADDITION, THE TRAINING DEPARTMENT WILL RE-EMPHASIZE THAT PRIOR TO INITIATING A TURBINE TRIP, P-7 MUST BE VERIFIED TO BE ACTUATED IN ORDER TO AVOID A REACTOR TRIP. THE CONTROL ROD P-8 MISALIGNMENT WAS CAUSED BY ONE PIN IN THE CRD MECHANISM RECEPTACLE NOT MAKING PROPER CONTACT WITH ITS CORRESPONDING SOCKET IN THE POWER CABLE PLUG.

[ 38] BYRON 1 DOCKET 50-454 LER 85-081  
RHR SYSTEM INOPERABLE DUE TO SURVEILLANCE LINEUP.  
EVENT DATE: 073185 REPORT DATE: 082885 NSSS: WE TYPE: PWR  
VENDOR: LIMITORQUE CORP.

(NSIC 196009) AFTER COMPLETION OF AN ASME RHR PUMP OPERABILITY SURVEILLANCE ON 7-31-85, IT WAS CONFIRMED BY THE STATION TECH STAFF THAT THE CURRENT TESTING VALVE LINE-UP PLACED THE PLANT IN AN UNANALYZED CONDITION. THE CROSS-TIE VALVES, 1RH9716A AND B, HAD BEEN CLOSED TO FACILITATE TESTING. THIS, HOWEVER, ALLOWS FOR THE OPERABLE RHR PUMP TO ONLY DELIVER BORATED WATER INTO 2 OUT OF 4 COLD LEGS DURING THE INJECTION PHASE OF AN ACCIDENT. BYRON STATION'S ACCIDENT ANALYSIS ASSUMES ALL 4 COLD LEG INJECTION PATHS ARE AVAILABLE. AS CORRECTIVE ACTION, THE

PERMANENT PROCEDURES, 1BVS 5.2.F.3-1 AND 5.2.F.3-2 HAVE BEEN REVISED. AIR 6-85-307 WILL TRACK THE REVIEW AND REVISION OF OTHER STATION PROCEDURES THAT MAY ALSO DIRECT THE CLOSURE OF THESE VALVES.

[ 39]       BYRON 1                               DOCKET 50-454       LER 85-085  
ASME INSPECTION NOT PERFORMED ON TWO SI VALVE WELDS.  
EVENT DATE: 082985   REPORT DATE: 092385   NSSS: WE       TYPE: PWR

(NSIC 196303) IT WAS DETERMINED THAT TWO ASME CODE CLASS 2 WELDS IN THE SAFETY INJECTION SYSTEM WERE NOT EXAMINED PER ASME CODE REQUIREMENTS DURING THE UNIT 1 PRESERVICE INSPECTION. WHILE PERFORMING THE PRESERVICE INSPECTION OF THE SAFETY INJECTION SYSTEM OF BYRON UNIT 2, THE INSPECTION PERSONNEL REALIZED THAT THE VALVE-TO-PIPE WELD FOR THE CONTAINMENT SUMP OUTLET ISOLATION VALVES (ISI8811A AND ISI8811B) ON UNIT 1 HAD BEEN MISIDENTIFIED. UPON NOTIFICATION, THE OPERATING DEPARTMENT DECLARED AN UNUSUAL EVENT AND PLACED THE UNIT IN HOT STANDBY (MODE 3) WITHIN THE TIME FRAME REQUIRED BY THE TECH SPECS. ON SEPTEMBER 3, 1985, RELIEF FROM THE ASME CODE REQUIREMENTS WAS GRANTED BY THE NRC, ALLOWING RESUMPTION OF OPERATION AND DEFERRAL OF THE ASME EXAMINATION REQUIREMENTS OF THE TWO SUBJECT WELDS UNTIL THE FIRST OUTAGE OF AN EXPECTED DURATION OF GREATER THAN TEN (10) DAYS.

[ 40]       BYRON 1                               DOCKET 50-454       LER 85-086  
ENVIRONMENTALLY UNQUALIFIED TERMINAL STRIPS IN MSIV'S.  
EVENT DATE: 082985   REPORT DATE: 092785   NSSS: WE       TYPE: PWR  
VENDOR: CONNECTRON, INC.  
          PARKER HANNIFIN CORP.

(NSIC 196304) THE MAIN STEAM ISOLATION VALVES (MSIV'S) WERE DECLARED INOPERABLE DUE TO ENVIRONMENTALLY UNQUALIFIED TERMINAL STRIPS LOCATED IN THE JUNCTION BOXES ON THE MSIV'S. THE ENVIRONMENTALLY UNQUALIFIED TERMINAL STRIPS WERE REMOVED AND THE WIRES WERE REATTACHED WITH RAYCHEM SPLICE KITS PER APPROVED PROCEDURES. RAYCHEM SPLICE CONNECTIONS HAVE BEEN ENVIRONMENTALLY QUALIFIED FOR THE STEAM TUNNEL AREA.

[ 41]       BYRON 1                               DOCKET 50-454       LER 85-088  
SPURIOUS RADIATION MONITOR SIGNALS CAUSE AUTO START OF MAIN CONTROL ROOM VENTILATION SYSTEM.  
EVENT DATE: 090885   REPORT DATE: 092785   NSSS: WE       TYPE: PWR  
VENDOR: GENERAL ATOMIC CO.

(NSIC 196254) ON 9-8 PROCESS RADIATION MONITOR OPR34J (MAIN CONTROL ROOM OUTSIDE AIR INTAKE 'B') WENT INTO THE INTERLOCK MODE AS A RESULT OF A NOISE SPIKE ON THE MONITOR'S GAS CHANNEL. ON 9-11 AT 1509, PROCESS RADIATION MONITOR OPR33J (MAIN CONTROL ROOM OUTSIDE AIR INTAKE 'B') ALSO WENT INTO THE INTERLOCK MODE AS A RESULT OF A NOISE SPIKE ON THE MONITOR'S GAS CHANNEL. THIS CAUSED THE TRAIN B MAIN CONTROL ROOM VENTILATION SYSTEM TO TRANSFER TO ITS ESF CONFIGURATION ON BOTH OCCASIONS. THE SOURCE OF THESE NOISE SPIKES IS PRESENTLY UNKNOWN. MONITORING INSTRUMENTATION HAS BEEN PLACED ON OPR34J IN ORDER TO OBTAIN DATA ON INPUT VOLTAGE AND AREA RF LEVELS SHOULD A SPIKE OCCUR AGAIN.

[ 42]       CALLAWAY 1                           DOCKET 50-483       LER 85-035  
THREE TECHNICAL SPECIFICATION VIOLATIONS INVOLVING FIRE WRAPPING OR FIRE WATCHES OCCUR.  
EVENT DATE: 062485   REPORT DATE: 081985   NSSS: WE       TYPE: PWR

(NSIC 196308) THIS LER CONSISTS OF SEVERAL RELATED INCIDENTS. EACH OCCURRED WITH THE PLANT IN MODE 1, POWER OPERATION, AT 100% REACTOR POWER. ON 6-24-85, NUCLEAR

ENGINEERING PERSONNEL BECAME AWARE OF PARTIAL RESULTS OF A RACEWAY INSPECTION IDENTIFYING FIRE WRAP DEFICIENCIES, BUT FAILED TO RECOGNIZE THE APPLICABILITY OF TECH SPECS. THE RESULTS WERE FORWARDED TO PLANT PERSONNEL. FIRE WATCHES WERE ESTABLISHED IN THE AFFECTED AREAS ON 7-25-85. ON 7-26-85 FW PERSONNEL DISCOVERED THEY PATROLLED A WRONG AREA, FAILING TO MEET TECH SPEC IN ONE AREA. THE PATROL FOR THE CORRECT AREA WAS ESTABLISHED ON 7-26-85. ON 8-1-85 THE FW WAS INADVERTENTLY CANCELLED FOR ONE AREA, BECAUSE FIRE PROTECTION PERSONNEL HAD FAILED TO INITIATE THE PROPER DOCUMENTATION. THE PROPER FIRE WATCH WAS RE-ESTABLISHED ON 8-2-85. THE RACEWAY INSPECTION HAS BEEN COMPLETED, EXCEPT FOR 1 LOCATION IN CONTAINMENT. FP PERSONNEL HAVE REVIEWED THE RESULTS AND ENSURED APPROPRIATE FW ARE IN PLACE. PAPERWORK HAS BEEN INITIATED TO CORRECT THE RACEWAY DEFICIENCIES. PROCEDURES WILL BE REVIEWED FOR POTENTIAL CLARIFICATION OF PERSONNEL RESPONSIBILITIES FOR REPORTING SIGNIFICANT ITEMS OF CONCERN TO APPROPRIATE PLANT MANAGEMENT. ADDITIONAL TRAINING RELATIVE TO APPLICABILITY OF TECH SPEC AND REPORTABILITY WILL BE CONDUCTED. THIS EVENT DID NOT PRESENT A SAFETY CONCERN.

[ 43] CALLAWAY 1 DOCKET 50-483 LER 85-040  
FAILURE TO PERFORM FIRE WATCH IN CONTAINMENT.  
EVENT DATE: 091085 REPORT DATE: 101085 NSSS: WE TYPE: PWR  
VENDOR: VELAN VALVE CORP.

(NSIC 196452) ON 9-10-85 THE 2300-2400 CDT FIREWATCH PATROL COVERING A PORTION OF THE CONTAINMENT BLDG WAS PERFORMED LATE CAUSING A VIOLATION OF TECH SPEC 3.7.10.2.B. THE FIREWATCH WAS PERFORMED LATE DUE TO NOT OBTAINING ACCESS INTO THE CONTAINMENT BLDG. THIS RESULTED FROM A COMBINATION OF EVENTS THAT TOGETHER LED TO THE LATE PERFORMANCE OF THE REQUIRED 2300-2400 FIREWATCH PATROL. A CONTRIBUTING FACTOR WAS A LATER THAN NORMAL ARRIVAL TIME OF THE FIREWATCH PERSONNEL AT THE ACCESS AREA BECAUSE BACK-TO-BACK FIREWATCHES WERE BEING PERFORMED (I.E., COVERING 2 HRS WITH 1 FIREWATCH BY GOING IN BEFORE THE HR AND COMING OUT AFTER THE HR). TO PREVENT RECURRENCE OF THIS SITUATION, THE FIREWATCH PATROL POST INSTRUCTIONS HAS BEEN CHANGED TO EMPHASIZE THE IMPORTANCE OF ALLOWING AMPLE TIME TO PERFORM FIREWATCHES. FIREWATCH, HEALTH PHYSICS, AND OPERATIONS PERSONNEL HAVE BEEN INSTRUCTED THAT BACK-TO-BACK FIREWATCH PATROLS ARE NOT ALLOWABLE.

[ 44] CATAWBA 1 DOCKET 50-413 LER 85-041  
LOSS OF MAIN FEEDWATER PUMP DURING SHUTDOWN.  
EVENT DATE: 061385 REPORT DATE: 071285 NSSS: WE TYPE: PWR

(NSIC 196248) AFTER DECLARING AN UNUSUAL EVENT AT 2145 HRS ON 6-12-85, DUE TO UNIDENTIFIED RCS LEAKAGE, REACTOR POWER WAS REDUCED TO 15%. AT THIS POWER LEVEL, THE FEEDWATER FLOW PATH WAS SWAPPED FROM THE LOWER FEEDWATER NOZZLES TO THE UPPER AUX FEEDWATER NOZZLES. DURING THIS PLANT EVOLUTION, A LOW SUCTION FLOW TRIP OF MAIN FEEDWATER (MF) PUMP B OCCURRED, CAUSING AN AUTO-START OF BOTH AUX FEEDWATER MOTOR-DRIVEN PUMPS AND MAIN FEEDWATER ISOLATION. THE REACTOR WAS SUBSEQUENTLY MANUALLY TRIPPED FROM 6% POWER AS REQUIRED BY THE LOSS OF SG FEEDWATER ABNORMAL PROCEDURE. THE MF PUMP TRIP OCCURRED DURING A FLOW REDUCTION DUE TO A NORMAL PLANT SHUTDOWN SEQUENCE. THE MF PUMP B RECIRCULATION VALVE WAS NOT CAPABLE OF MODULATING QUICKLY ENOUGH TO PROVIDE ADEQUATE PUMP MINIMUM FLOW. THEREFORE, THIS INCIDENT IS CLASSIFIED AS A DESIGN DEFICIENCY. THIS INCIDENT IS REPORTABLE PURSUANT TO 10 CFR 50.73 (A)(2)(IV), AND 10 CFR 50.72, (B)(2)(II).

[ 45] CATAWBA 1 DOCKET 50-413 LER 85-043  
LOSS OF CONDENSER VACUUM FOLLOWING OPENING OF MFP TURBINE DRAIN VALVE LOSS OF MAIN FEEDWATER.  
EVENT DATE: 062285 REPORT DATE: 072285 NSSS: WE TYPE: PWR

(NSIC 196250) ON 7-23-85 AT AROUND 1330 HRS, FIRE BARRIER PENETRATION C-AX-228-W-9 WAS DETERMINED TO BE INOPERABLE DUE TO THE UNSEALED INSTALLATION OF 2 TEMPORARY CABLES WHICH PENETRATED THE FIRE BARRIER. UPON DISCOVERY OF THE INOPERABLE PENETRATION, STATION SECURITY WAS IMMEDIATELY NOTIFIED AND AN HOURLY FIRE WATCH WAS ESTABLISHED. THE TEMPORARY CABLES WERE SUBSEQUENTLY REMOVED AND THE FIRE BARRIER WAS RESEALED. CONSTRUCTION DOCUMENTATION INDICATES THAT THE TEMPORARY CABLES WERE ROUTED THROUGH THE PENETRATION ON 4-10-84, WHICH WAS PRIOR TO TURNOVER OF ALL UNIT 1 FIRE BARRIER PENETRATIONS TO NUCLEAR PRODUCTION AND THE APPLICABILITY OF TECH SPECS. SUBSEQUENT INSPECTIONS WERE PERFORMED ON ALL UNIT 1 FIRE BARRIER PENETRATIONS, HOWEVER, THE INOPERABLE PENETRATION WAS NOT DISCOVERED AT THESE TIMES. THEREFORE, THIS INCIDENT IS CLASSIFIED AS A PERSONNEL ERROR. THIS INCIDENT IS REPORTABLE PURSUANT TO 10 CFR 50.73 (A)(2)(I)(B).

(NSIC 196251) ON 7-29-85 AT 1330 HRS, IT WAS DISCOVERED THAT THE RESPONSE TIME TESTING FOR AUX FEEDWATER TRANSFER OF SUCTION SOURCE TO NUCLEAR SERVICE WATER HAD BEEN IMPROPERLY PERFORMED. THE TEST PROCEDURE FAILED TO CONSIDER THE ACTUATION TIME ASSOCIATED WITH THE PRESSURE SWITCHES OF THE CA PUMPS. BECAUSE OF THIS AND THE FACT THAT NO PROGRAM EXISTED TO ENSURE ALL REQUIRED RESPONSE TIMES WERE BEING TESTED PROPERLY, THIS EVENT IS CLASSIFIED AS A PROCEDURAL DEFICIENCY. UNIT 1 WAS IN MODE 1 AT THE TIME THIS INCIDENT WAS DISCOVERED, BUT THE SITUATION HAD EXISTED SINCE MODE 3 WAS INITIALLY ENTERED ON 10-22-84. THIS IS THE REQUIRED MODE FOR CA TO BE OPERABLE. THIS INCIDENT IS REPORTABLE PURSUANT TO 10 CFR 50.73(A)(2)(I)(B).

(NSIC 196252) ON 7-29-85 AT 1936 HRS, THE B TRAIN OF THE CONTROL ROOM VENTILATION SYSTEM WAS ACTUATED DURING PREOPERATIONAL TESTING OF THE UNIT 2 B-TRAIN DG LOAD SEQUENCER. IN ORDER TO SIMULATE A BLACKOUT CONDITION, THE TEST PROCEDURE SPECIFIED THAT A LOCKOUT RELAY WAS TO BE MANUALLY ACTUATED BY DEPRESSING THE PLUNGER ON THE RELAY. DUE TO THE CLOSE PROXIMITY OF THE PLUNGER WITH OTHER ELECTRICAL EQUIPMENT, THE TEST COORDINATORS CHOSE TO ELECTRICALLY ACTUATE AN OVERCURRENT RELAY BY INSTALLING A JUMPER. THE ACTUATION OF THE OVERCURRENT RELAY CAUSED THE NORMAL INCOMING BREAKER TO B TRAIN 4160V BUS 2ETB TO TRIP. THE SUBSEQUENT UNDERVOLTAGE CONDITIONS ACTUATED THE UNIT 2 B TRAIN DG LOAD SEQUENCER. THE CONTROL ROOM AREA FILTER TRAIN B PRESSURE FAN MOTOR WAS AUTOMATICALLY

STARTED FOLLOWING THE 8 SECOND UNDERVOLTAGE TEST BY THE SEQUENCER. THIS EVENT IS CLASSIFIED AS A PERSONNEL ERROR. THE TEST PROCEDURE WAS NOT FOLLOWED CORRECTLY. IN ADDITION, A PROCEDURE CHANGE WAS NOT INITIATED AS REQUIRED BY STATION DIRECTIVES. THIS INCIDENT IS REPORTABLE PER 10 CFR 50.73(A)(2)(IV) AND 10 CFR 50.72(B)(2)(II).

[ 49] CATAWBA 1 DOCKET 50-413 LER 85-050  
INADVERTENT ISOLATION OF THE MAIN FIRE PROTECTION SYSTEM.  
EVENT DATE: 080785 REPORT DATE: 091185 NSSS: WE TYPE: PWR

(NSIC 196451) FROM 8-7-85, AT 2355 HRS. TO 8-8-85, AT 0410 HRS, BOTH DISCHARGE HEADERS OF THE FIRE PROTECTION PUMPS WERE ISOLATED, RENDERING THE EXTERIOR/INTERIOR FIRE PROTECTION SYSTEM INOPERABLE. WHEN THE UNIT SUPERVISOR AUTHORIZED THE ISOLATION OF ONE OF THE RY HEADERS TO SUPPORT MAINTENANCE WORK, HE DID NOT REALIZE THAT THE OTHER RY HEADER WAS ALREADY ISOLATED. THIS WAS CAUSED BY THE UNIT SUPERVISOR NOT REVIEWING THE ACTIVE TAGOUTS ON THE RY SYSTEM AND BY NOT PROPERLY FOLLOWING THE FIRE IMPAIRMENT REPORTING STATION DIRECTIVE. THEREFORE, THIS INCIDENT HAS BEEN CLASSIFIED AS A PERSONNEL ERROR. A REVIEW OF THE CONTROLLED RY FIRE IMPAIRMENT FLOW DIAGRAMS BY THE FIRE PROTECTION CONTROL OPERATOR LED TO THE DISCOVERY OF THE INCIDENT AND SUBSEQUENT RETURN TO OPERABILITY OF ONE RY PUMP DISCHARGE HEADER. THIS INCIDENT IS REPORTABLE PURSUANT TO 10 CFR 50.73(A)(2)(I)(B).

[ 50] COOK 1 DOCKET 50-315 LER 84-007 REV 2  
UPDATE ON DISCOVERY OF ERROR IN "DETECTOR" COMPUTER CODE.  
EVENT DATE: 052284 REPORT DATE: 050385 NSSS: WE TYPE: PWR

(NSIC 196414) ON 5-22-84, A DETECTOR COMPUTER CODE PROGRAMMING ERROR WAS DISCOVERED IN THE CALCULATIONAL LOGIC WHILE IN THE PROCESS OF MODIFYING THE CODE. THIS CODE ANALYZES RAW FLUX MAP DATA TO DETERMINE COMPLIANCE WITH POWER DISTRIBUTION TECH SPECS. THIS ERROR WAS PRESENT IN DETECTOR VERSION 23, WHICH WAS USED IN ANALYZING THE FIRST 47 FLUX MAPS TAKEN DURING UNIT 1 CYCLE 8. THE PURPOSE OF THIS REVISION IS TO REQUEST AN EXTENSION OF THE COMMITMENT DATES FOR THE TWO REMAINING (OUT OF FOUR COMMITTED) COMMITMENTS MADE IN VOLUNTARY LER 84-007-1. THESE TWO REMAINING COMMITMENTS ARE: 1) SET UP A STANDARD INPUT MODEL TO PROVIDE A COMMON BENCHMARK FOR ALL FUTURE VERSIONS OF "DETECTOR"; COMMITTED TO HAVE COMPLETED BY APRIL 30, 1985, AND, 2) DEVELOP A POST-PROCESSING CODE TO MORE CLOSELY AND EFFICIENTLY MONITOR "DETECTOR" PERFORMANCE AND RESULTS; COMMITTED TO HAVE COMPLETED BY JUNE 30, 1985. AS PER CONVERSATION WITH MARY MCCORMICK-BARKER OF REGION III ON APRIL 1, 1985, THE LICENSEE HAS REQUESTED AN EXTENSION OF SIX MONTHS FOR BOTH COMMITMENTS, I.E., 1) STANDARD INPUT MODEL-DUE OCTOBER 31, 1985, AND, 2) POST-PROCESSING CODE-DUE DECEMBER 31, 1985.

[ 51] COOK 1 DOCKET 50-315 LER 84-021 REV 1  
UPDATE ON IMPROPERLY CALCULATED CALIBRATION CONSTANTS FOR RADIATION MONITORING INSTRUMENTS.  
EVENT DATE: 082984 REPORT DATE: 121484 NSSS: WE TYPE: PWR  
OTHER UNITS INVOLVED: COOK 2 (PWR)  
VENDOR: EBERLINE INSTRUMENT CORP.

(NSIC 196415) ON AUGUST 29, 1984, IT WAS DISCOVERED DURING A SPECIAL GAIN VERSUS THRESHOLD COMPARISON THAT THE CALIBRATION CONSTANTS USED BY THE EBERLINE RADIATION MONITORING SYSTEM TO CONVERT A CHANNEL RESPONSE IN COUNTS PER MINUTE INTO THE DESIRED UNITS (E.G., MR/HR, MICROCI/CC, AND MICROCI) HAD BEEN CALCULATED INCORRECTLY. THE ERROR IS BEING REPORTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50.73 (A)(2)(V). THE PROCEDURE USED TO CALCULATE THE CALIBRATION CONSTANTS WAS CHANGED TO CORRECT THE ERROR AND ALL CALIBRATION CONSTANTS WERE CORRECTED AND ENTERED INTO THE COMPUTER MEMORY OF THE RADIATION MONITORING SYSTEM.

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[ 52]      COOK 1                      DOCKET 50-315      LER 84-033 REV 1
UPDATE ON INOPERABLE FIRE DOORS.
EVENT DATE: 120684    REPORT DATE: 021185    NSSS: WE      TYPE: PWR
OTHER UNITS INVOLVED: COOK 2 (PWR)
VENDOR: KINNEAR STEEL ROLLING DOORS
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(NSIC 196416) IT WAS DISCOVERED DURING A POST-MAINTENANCE REVIEW OF TECH SPEC FIRE DOOR SURVEILLANCE TEST AND REPAIR DOCUMENTATION THAT ROLL-UP FIRE DOORS #313 (UNIT 1 PRESSURIZER HEATER TRANSFORMER ROOM), #343 (UNIT 1 4KV SWITCHGEAR ROOM) AND #314 (UNIT 2 PRESSURIZER HEATER TRANSFORMER ROOM) HAD NOT MET THE SURVEILLANCE TEST PROCEDURE ACCEPTANCE CRITERIA. THE DOORS HAD NOT BEEN DECLARED INOPERABLE AND THE REQUIREMENTS OF TECH SPEC 3.7.10 ACTION ITEM (A) HAD NOT BEEN MET DUE TO A PERSONNEL ERROR IN INTERPRETING THE SURVEILLANCE TEST PROCEDURE ACCEPTANCE CRITERIA. FIRE DOORS 313 AND 314 HAD BEEN IN NON-COMPLIANCE FOR 13 DAYS AND DOOR 343 FOR 6 DAYS. THE PURPOSE OF THIS REVISION IS TO INCLUDE THE SAFETY ASSESSMENT OF THE EVENT. IT IS THE LICENSEE'S OPINION THAT NONE OF THE AREAS WERE IN DANGER OF A FIRE PROPAGATING DUE TO INOPERABLE FIRE DOORS.

[ 53] COOK 1 DOCKET 50-315 LER 84-035 REV 1  
UPDATE ON INOPERABLE FIRE DOORS.  
EVENT DATE: 122184 REPORT DATE: 032985 NSSS: WE TYPE: PWR  
OTHER UNITS INVOLVED: COOK 2 (PWR)  
VENDOR: OMEGA ENGINEERING, INC.

(NSIC 196417) ON 12/21/84, A REVIEW WAS PERFORMED OF THE 18-MONTH SURVEILLANCE TEST PROCEDURE FOR THE ICE CONDENSER INTERMEDIATE DECK DOORS. DURING THE REVIEW IT WAS DISCOVERED THAT THE ACCEPTANCE CRITERIA OF THE PROCEDURE WERE NOT IN COMPLIANCE WITH THE REQUIREMENTS OF TECH SPEC 4.6.5.3.2B. SUBSEQUENT REVIEW OF THE DATA FROM THE MOST RECENT UNIT 1 AND UNIT 2 SURVEILLANCE TEST REVEALED THAT 7 DOORS IN UNIT 1 EXCEEDED THE ACTUAL TECH SPEC REQUIREMENT OF 4.6.5.3.2B. THE SEVEN DOORS WERE DECLARED INOPERABLE AND A UNIT 1 SHUTDOWN WAS INITIATED. THE DOORS WERE LUBRICATED, TESTED UTILIZING THE CORRECTED PROCEDURE AND DECLARED OPERABLE AT 1640 HOURS ON 12/21/84. TO PREVENT A RECURRENCE OF THIS TYPE, ALL MAINTENANCE PERSONNEL INVOLVED IN WRITING PROCEDURES HAVE BEEN INFORMED OF THIS INCIDENT, AND HAVE BEEN REMINDED OF THE NECESSITY TO ACCURATELY TRANSCRIBE TECHNICAL DATA FROM REFERENCE DOCUMENTS INTO PROCEDURES. THE NEED TO THOROUGHLY PROOFREAD SUCCESSIVE DRAFTS AND/OR REVISIONS TO A PROCEDURE WAS STRESSED SINCE THE ERROR IN THE PROCEDURE WAS MOST LIKELY THE RESULT OF A TYPOGRAPHICAL MISTAKE

[ 54] COOK 1 DOCKET 50-315 LER 85-033  
POTENTIAL LOSS OF CONTAINMENT INTEGRITY DURING CORE ALTERATIONS.  
EVENT DATE: 072585 REPORT DATE: 082385 NSSS: WE TYPE: PWR

(NSIC 196227) ON 7-25-85 WITH THE UNIT IN MODE 6 THE SENIOR REACTOR OPERATOR FOR CORE ALTERATIONS (SRO-CA) CONDUCTED AN INSPECTION OF THE CONTAINMENT AND NOTICED CONDENSATION BACKED UP DUE TO A CLOSED FLOOR DRAIN VALVE. THE FLOOR DRAIN WAS REQUIRED TO BE CLOSED FOR CONTAINMENT INTEGRITY DURING CORE ALTERATIONS. SINCE CORE ALTERATIONS WERE STOPPED TEMPORARILY FOR A LUNCH PERIOD, THE CRO-CA OPENED THE VALVE (APPROX 0450 HRS) TO ALLOW THE CONDENSATE TO DRAIN. HIS INTENTION WAS TO RECLOSE IT IMMEDIATELY AFTER THE CONDENSATION HAD DRAINED, HOWEVER, HE BECAME INVOLVED IN OTHER ACTIVITIES AND NEVER CLOSED THE VALVE. IT WAS DISCOVERED TO BE OPEN BY CONTROL ROOM PERSONNEL AT 1453 HRS AND WAS IMMEDIATELY CLOSED (10 HRS AFTER CORE ALTERATIONS HAD RESUMED). THIS WAS NOT A VIOLATION OF REQUIRED CONTAINMENT ISOLATION SINCE A WATER SEAL PREVENTED AN ATMOSPHERE TO ATMOSPHERE PATH. THE POTENTIAL EXISTED, HOWEVER, FOR A SIMILAR EVENT WHICH COULD HAVE CAUSED A LOSS OF INTEGRITY AND IS THE BASIS FOR THIS REPORT. WE ARE DEVELOPING ADMINISTRATIVE CONTROLS WHICH WILL MINIMIZE THE POTENTIAL FOR A RECURRENCE OF THIS TYPE OF AN EVENT. THESE CONTROLS WILL BE ESTABLISHED PRIOR TO EITHER UNITS NEXT REFUELING OUTAGE (DEC. 1985).

[ 55] COOK 1 DOCKET 50-315 LER 85-048  
 INCORRECT REPLACEMENT PART INSTALLED ON THE TURBINE DRIVEN AUXILIARY FEEDWATER PUMP.  
 EVENT DATE: 091785 REPORT DATE: 101885 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: COOK 2 (PWR)

(NSIC 196281) ON 9-17-85 AT 1100 HRS, WITH BOTH UNITS 1 AND 2 IN MODE 5, IT WAS DISCOVERED THAT THE INCORRECT TRIP AND THROTTLE VALVE SOLENOID WAS INSTALLED ON BOTH THE UNIT 1 AND 2 TURBINE DRIVEN AUX FEEDWATER PUMPS. THIS DISCREPANCY WAS DISCOVERED WHILE CONSIDERING A DESIGN CHANGE TO THE SOLENOID COIL BRACKET. THE CORRECT SOLENOIDS WERE INSTALLED AND TESTED ON BOTH UNIT 1 AND 2 BY 9-25-85. THIS REPORT IS BEING SUBMITTED ON AN INTERIM BASIS TO PERMIT THE COMPLETION OF THE ENGINEERING EVALUATION.

[ 56] COOK 2 DOCKET 50-316 LER 84-004 REV 1  
 UPDATE ON ICE CONDENSER ICE BASKET WEIGHTS BELOW TECH SPEC LIMIT.  
 EVENT DATE: 032084 REPORT DATE: 111584 NSSS: WE TYPE: PWR

(NSIC 196261) THIS IS A REV TO LER 84-004 SUBMITTED ON 4-19-84. ON 3-20-84, WHILE IN MODE 5, THE ICE INVENTORY WITHIN THE ICE CONDENSER WAS DETERMINED TO BE BELOW THE LCO AS STATED IN TECH SPEC 3.6.5.1.D. THE SURVEILLANCE REQUIREMENT STIPULATING THE MINIMUM AVERAGE ICE WEIGHT OF THE SAMPLE BASKETS FROM EACH ROW/GROUP COULD NOT BE SATISFIED. LOSSES WERE DUE TO SUBLIMATION AND SUBSEQUENT ICE MIGRATION. THE ICE WEIGHT OF THE DEFICIENT ROWS WAS INCREASED BY AN EXTENSIVE ICE REPLENISHMENT PROGRAM. THIS WEIGHT INCREASE BROUGHT THE ROW/GROUP AVERAGES WELL WITHIN TECH SPEC LIMITS AND SHOULD ALSO INSURE ACCEPTABLE ICE BASKET WEIGHTS AT THE NEXT SCHEDULED SURVEILLANCE. SIMILAR EVENTS: 315/83-073, 315/82-072, 316/83-059, 316/82-116 AND 316/82-025.

[ 57] COOK 2 DOCKET 50-316 LER 84-019 REV 1  
 UPDATE ON PROTECTIVE FUNCTION CHANNEL NOT TRIPPED WITH RC PUMP OUT OF SERVICE.  
 EVENT DATE: 071084 REPORT DATE: 121884 NSSS: WE TYPE: PWR

(NSIC 196262) ON 7-10-84, THE UNIT WAS IN MODE 3 WITH T-AVG ABOVE P-12 (541 F) PREPARING FOR A STARTUP FOLLOWING A REFUELING OUTAGE. AT 0240 HRS, 1 OF THE 4 OPERATING RC PUMPS WAS REMOVED FROM SERVICE DUE TO INDICATION OF PUMP PROBLEMS. TECH SPEC 3.3.2.1, TABLE 3.3-3, ITEM 4D: REQUIRES THAT WHEN T-AVG IS ABOVE P-12 (541 F) THE T-AVG CHANNEL ASSOCIATED WITH THE PROTECTION FUNCTIONS DERIVED FROM THE OUT OF SERVICE RC LOOP BE PLACED IN THE TRIPPED CONDITION WITHIN 1 HR. THIS ACTION WAS NOT TAKEN. THE CONDITION EXISTED UNTIL 0633 AT WHICH TIME T-AVG DECREASED BELOW 541 F. THIS SITUATION WAS NOT RECOGNIZED AT THE TIME OF THE OCCURRENCE. THE ANNUNCIATOR RESPONSE PROCEDURE FOR THE RTD BYPASS RETURN FLOW LOW REQUIRES THE LOOP BISTABLES TO BE TRIPPED WITHIN 1 HR. HOWEVER, THE PROCEDURE WAS NOT REFERRED TO SINCE THIS IS AN EXPECTED ALARM WHENEVER A RC PUMP IS REMOVED FROM SERVICE. UNIT 1 AND 2 SHUTDOWN, HEATUP, AND RC PUMP OPERATION PROCEDURES HAVE BEEN REVISED TO ENSURE THAT T-AVG IS REDUCED TO BELOW P-12 (541 F) WITHIN 1 HR WHENEVER THERE ARE LESS THAN 4 RCP'S RUNNING. ADDITIONALLY, TRAINING HAS BEEN DONE ON THIS SITUATION AS PART OF THE LICENSED OPERATOR REQUALIFICATION PROGRAM.

[ 58] COOK 2 DOCKET 50-316 LER 85-020  
 INOPERABLE FIRE DAMPER.  
 EVENT DATE: 082285 REPORT DATE: 092085 NSSS: WE TYPE: PWR

(NSIC 196440) ON 8-22-85 AT 2200 HRS WITH THE RCS IN MODE 5, A SAFETY RELATED FIRE DAMPER WAS FOUND INOPERABLE DURING THE PERFORMANCE OF SURVEILLANCE TESTING PURSUANT TO SURVEILLANCE REQUIREMENT 4.7.10.1.B. THE 2 LOWER SECTIONS OF THE CURTAIN TYPE DAMPER WERE FOUND LYING ON THE LEDGE OF THE PENETRATION. THE

REMAINING INSTALLED SECTIONS WERE FOUND WITH THE RELEASE MECHANISM PROPERLY INSTALLED. THESE SECTIONS DROPPED INTO POSITION AS DESIGNED UPON TEST ACTUATION. AN OPENING 5.5 X 16 INCHES REMAINED IN THE PENETRATION. THE SUBJECT PENETRATION IS NEAR THE CEILING IN A WALL COMMON TO THE AB PLANT BATTERY ROOM AND THE CONTROL ROD DRIVE MOTOR-GENERATORS ROOM AND WAS LAST VERIFIED OPERABLE ON 5-21-84. DETECTION AND CARBON DIOXIDE SUPPRESSION SYSTEMS HAVE REMAINED OPERABLE DURING THE ENSUING TIME PERIOD. THE DAMPER WAS REPAIRED, TESTED AND RETURNED TO SERVICE AT 1510 HRS ON 8-23-85. SINCE INVESTIGATION COULD NOT DETERMINE THE SPECIFIC CIRCUMSTANCES RELATING TO THE CAUSE AND TIME OF OCCURRENCE, THIS EVENT IS PRESUMED TO HAVE EXCEEDED THE REQUIREMENTS OF ACTION STATEMENT A OF TECH SPEC 3.7.10. A FORMAL ENGINEERING EVALUATION OF THE SAFETY IMPLICATIONS OF THIS EVENT IS BEING CONDUCTED AND WILL BE REPORTED IN AN UPDATED REPORT.

[ 59] COOK 2 DOCKET 50-316 LER 85-024  
 ERRONEOUS SG LEVEL SIGNALS CAUSE ESF ACTUATION RESULTING IN A REACTOR TRIP SIGNAL.  
 EVENT DATE: 090685 REPORT DATE: 100785 NSSS: WE TYPE: PWR

(NSIC 196282) ON 9-6-85 AT 0847 HRS, WITH UNIT 2 IN MODE 5, AN AUTOMATIC ESF ACTUATION OCCURRED RESULTING IN A REACTOR TRIP SIGNAL. THE INITIATING EVENT WAS A LOW-LOW LEVEL INDICATION FOR SG NO. 2. THE LOW SG LEVEL INDICATION WAS THE RESULT OF SIMULTANEOUSLY TRIPPING 2 OF THE 3 SG NO. 2 LEVEL CHANNEL BISTABLES. ONE OF THE CHANNELS, BLP-121, WAS TRIPPED WHILE PERFORMING SURVEILLANCE TESTING. THE OTHER CHANNEL, BLP-122, HAD BEEN IN THE TRIPPED CONDITION SINCE 8-24-85, WHEN IT WAS REMOVED FROM SERVICE FOR REPAIRS. THE CONTROL ROOM STATUS LIGHT (INDICATING THAT BLP-122 WAS IN THE TRIPPED CONDITION) HAD BEEN RESET CONTRARY TO ESTABLISHED PLANT POLICY. CONSEQUENTLY, THE TECHNICIAN CONDUCTING THE SURVEILLANCE TEST HAD NO WAY OF KNOWING THAT AN ESF ACTUATION WAS IMMINENT UPON TRIPPING BLP-121. SINCE ADHERENCE TO ESTABLISHED PLANT POLICY WOULD HAVE PREVENTED THE INCIDENT, AND THE INDIVIDUAL INVOLVED COULD NOT BE IDENTIFIED, NO PREVENTIVE ACTION WAS TAKEN.

[ 60] COOK 2 DOCKET 50-316 LER 85-025  
 MISSED SURVEILLANCE TESTS FOR TURBINE STOP VALVE AND RCP BREAKER POSITION TRIP.  
 EVENT DATE: 090685 REPORT DATE: 100785 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: COOK 1 (PWR)

(NSIC 196284) ON 9-6-85, AT 1545 HRS AND 9-7-85 AT 0915 HRS, WITH UNIT 1 IN MODE 5 AND UNIT 2 IN MODE 5, IT WAS DISCOVERED DURING A REVIEW OF SURVEILLANCE REQUIREMENTS FOR TECH SPEC 3.3.1.1 (REACTOR TRIP INSTRUMENTATION) THAT SURVEILLANCE REQUIREMENTS 4.3.1.1 ITEM 18B AND ITEM 20 WERE PREVIOUSLY NOT FULLY COMPLIED WITH. SURVEILLANCE ITEM 18B (TURBINE STOP VALVE CLOSURE) WAS PERFORMED ON A MONTHLY BASIS (FOR BOTH UNITS 1 AND 2). IT WAS DETERMINED THAT THIS SURVEILLANCE MUST ALSO BE VERIFIED WITHIN 7 DAYS OF A REACTOR STARTUP. THIS ADDITIONAL SURVEILLANCE REQUIREMENT WAS NOT PREVIOUSLY IDENTIFIED. SURVEILLANCE ITEM 20 (RCP BREAKERS POSITION TRIP) FOR UNIT 2 CANNOT BE DOCUMENTED AS BEING PERFORMED BETWEEN THE PERIOD OF 7-7-79, AND 4-4-81. TO PREVENT RECURRENCE, THE SURVEILLANCE REQUIREMENTS 4.3.1.1.1 ITEM 18B AND ITEM 20 HAVE BEEN ADDED TO THE COMPUTERIZED NUCLEAR TEST SCHEDULE FOR REACTOR STARTUP FOR UNIT 1 AND 2.

[ 61] COOK 2 DOCKET 50-316 LER 85-027  
 UNSEALED FIRE BARRIER PENETRATIONS IN WALL BETWEEN ESSENTIAL SERVICE WATER PUMP ROOMS FOR UNITS 1 AND 2.  
 EVENT DATE: 091185 REPORT DATE: 101085 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: COOK 1 (PWR)

(NSIC 196283) ON 9-11-85 AT 1800 HRS, WITH BOTH UNITS 1 AND 2 IN MODE 5, IT WAS DETERMINED THAT THE FIRE RATING OF THE WALL SEPARATING THE UNIT 1 AND 2 ESSENTIAL SERVICE WATER (ESW) PUMP ROOMS WAS NOT CONSISTENT WITH CURRENT APPENDIX R

REQUIREMENTS. THE INCONSISTENCY WAS BASED ON THE FACT THAT OPEN (UNSEALED) PENETRATIONS EXISTED. A CONTINUOUS FIRE WATCH WAS PROMPTLY ESTABLISHED AND A WORK ORDER INITIATED TO SEAL THE SUBJECT PENETRATIONS. ON 9-12-85, THE OPEN PENETRATIONS WERE PERMANENTLY SEALED. SINCE THE ESW PUMP ROOMS, FOR BOTH UNITS 1 AND 2, CONTAINED FIRE DETECTORS, AND A FIRE, IF IT HAD OCCURRED, WOULD HAVE BEEN IMMEDIATELY BROUGHT TO THE ATTENTION OF CONTROL ROOM PERSONNEL, IT IS CONCLUDED THAT THERE WAS NO SIGNIFICANT DEGRADATION OF FIRE PROTECTION CAPABILITY DUE TO THIS INCIDENT.

[ 62] COOK 2 DOCKET 50-316 LER 85-028  
HIGH LEVEL IN SPRAY ADDITIVE TANK.  
EVENT DATE: 091585 REPORT DATE: 101585 NSSS: WE TYPE: PWR

(NSIC 196393) ON SEPTEMBER 15, 1985 AT 1345 HOURS, WITH UNIT 2 IN MODE 5 (COLD SHUTDOWN), THE SPRAY ADDITIVE TANK VOLUME WAS DISCOVERED TO BE 4700 GALLONS, 100 GALLONS GREATER THAN THE MAXIMUM VOLUME PERMITTED BY TECH SPEC 3.6.2.2 (NOT APPLICABLE IN MODE 5). AS A RESULT, THE UNIT HAS BEEN IN APPLICABLE MODES WITH TANK VOLUME ABOVE SPECIFICATION. THE SPRAY ADDITIVE TANK WAS DECLARED INOPERABLE AT 1345 HOURS SEPTEMBER 15, 1985. THE TANK WAS DRAINED TO MEET SPECIFICATIONS AND RETURNED TO OPERABLE STATUS AT 1430 HOURS ON SEPTEMBER 18, 1985. THE CAUSE OF THE CONDITION WAS PROCEDURAL DEFICIENCIES. TO PREVENT RECURRENCE THE APPROPRIATE PROCEDURES WILL BE REVISED BY NOVEMBER 15, 1985. A SAFETY EVALUATION WAS CONDUCTED WHICH CONSIDERED TWO CASES FOR THE HIGH VOLUME CONDITION, WHETHER THE ASSUMED INVENTORY ADDITION COULD HAVE INCREASED OR REDUCED THE CAUSTIC CONCENTRATION. IN BOTH CASES THE LONG TERM EFFECT ON THE SPRAY SOLUTION PH WAS INCONSEQUENTIAL. BASED ON THIS EVALUATION, IT IS CONCLUDED THAT THE EXCESS SODIUM HYDROXIDE SOLUTION IN THE SPRAY ADDITIVE TANK DID NOT CONSTITUTE AN UNREVIEWED SAFETY QUESTION AS DEFINED IN 10CFR50.59.

[ 63] COOPER DOCKET 50-298 LER 84-011 REV 1  
UPDATE ON HPCI OVERSPEED TRIP CONTROL VALVE DIAPHRAGM FAILURE.  
EVENT DATE: 082884 REPORT DATE: 103184 NSSS: GE TYPE: BWR  
VENDOR: ROBERTSHAW CONTROLS COMPANY

(NSIC 196315) ON 8-28-84 A STATION OPERATOR DETECTED LUBE OIL LEAKAGE IN THE HPCI PUMP ROOM. THE ORIGIN OF THE LUBE OIL LEAKAGE WAS TRACED TO A FAILED DIAPHRAGM ON THE HPCI TURBINE OVERSPEED TRIP AUTO RESET CONTROL VALVE ACTUATOR. THE FUNCTION OF THE SUBJECT CONTROL VALVE IS TO REGULATE THE DURATION OF AN OVERSPEED TRIP CONDITION; I.E., THE TIME PERIOD FROM OVERSPEED TRIP TO OVERSPEED TRIP RESET. FAILURE OF THE CONTROL VALVE DIAPHRAGM CAUSED THE CONTROL VALVE TO FAIL CLOSED. THIS CONDITION WOULD PRECLUDE PROPER OPERATION OF THE OVERSPEED TRIP PISTON IN THE EVENT OF AN OVERSPEED EVENT. HOWEVER, THIS CONDITION WOULD NOT AFFECT NORMAL OPERATION OF THE HPCI PUMP. ADDITIONAL INFO WAS DISCOVERED WHICH INDICATED THAT THE FAILED DIAPHRAGM WAS NOT THE ORIGINAL DIAPHRAGM SUPPLIED WITH THE UNIT, AS REPORTED. THE FAILED DIAPHRAGM WAS A REPLACEMENT DIAPHRAGM INSTALLED ON 3-3-82. THIS IMPROVED DESIGN DIAPHRAGM WAS INSTALLED PER GE SERVICE INFO LETTER 358, DATED 6-81. THIS SIL ADDRESSED A PROBLEM WITH PROCUREMENT OF VALVE DIAPHRAGMS FOR THE SUBJECT CONTROL VALVE APPLICATION. THIS IMPROVED VERSION OF THE DIAPHRAGM IS DESIGNED FOR A MINIMUM OF 1000 CYCLES. PLANT OPERATING RECORDS INDICATE THAT THE FAILED DIAPHRAGM WAS CYCLED APPROX 950 TIMES BEFORE FAILURE, BETWEEN 3-3-82 AND 8-28-84.

[ 64] COOPER DOCKET 50-298 LER 85-005  
EXCESSIVE PRIMARY CONTAINMENT LOCAL LEAKAGE RATE.  
EVENT DATE: 081885 REPORT DATE: 091785 NSSS: GE TYPE: BWR  
VENDOR: ALLIS CHALMERS  
ANCHOR VALVE CO.  
ATWOOD & MORRILL CO., INC.

CHICAGO BRIDGE AND IRON COMPANY  
CONVAL INC.

(NSIC 196390) PRIMARY CONTAINMENT LOCAL LEAK RATE TESTING PERFORMED DURING THE 1984-85 OUTAGE AT COOPER NUCLEAR STATION YIELDED NINE TYPE C (ISOLATION VALVE) AND TWO TYPE B (DOUBLE O-RING SEAL) PENETRATION FAILURES, CONSTITUTING A TOTAL "AS FOUND" LEAKAGE RATE IN EXCESS OF TECH SPEC LIMITS. FIVE ISOLATION VALVES WERE REPLACED AND TWELVE WERE REPAIRED. SEALS WERE REPLACED ON BOTH TYPE B PENETRATIONS AND THE TOTAL LEAKAGE WAS REDUCED TO WITHIN SPECIFIED LIMITS. A PROGRAM TO TREND "AS FOUND" LEAKAGE AND MAKE THE NECESSARY REPAIRS OR REPLACEMENTS HAS BEEN IMPLEMENTED AS A LONG RANGE PLAN TO REDUCE "AS FOUND" LEAKAGE TO LESS THAN 0.60 LA (189 SCFH).

[ 65]	COOPER	DOCKET 50-298	LER 85-006
HPCI SUCTION VALVE FAILS.			
EVENT DATE: 081985		REPORT DATE: 091885	NSSS: GE
VENDOR: ANCHOR VALVE CO.			TYPE: BWR
LIMITORQUE CORP.			

(NSIC 196222) AT 0240, 8-19-85, THE HPCI SYSTEM WAS DECLARED INOPERABLE DUE TO FAILURE OF THE MOTOR OPERATOR ON THE SYSTEM SUCTION VALVE. THE REACTOR WAS IN COLD SHUTDOWN CONDITION, COOLANT TEMPERATURE APPROX 177 DEGREES F AND THE REACTOR VENTED. OPERABILITY OF THE SYSTEM IS NOT REQUIRED BY TECH SPECS PRIOR TO A REACTOR PRESSURE OF 113 PSIG. THE FAILURE OCCURRED WHILE STROKING THE VALVE TO PROVE OPERABILITY IN PREPARATION FOR REACTOR STARTUP. INVESTIGATION REVEALED THAT THE VALVE OPERATOR MOTOR HAD FAILED DUE TO A MISADJUSTED TORQUE SWITCH. THE MOTOR WAS REPLACED AND THE TORQUE SWITCH WAS READJUSTED. THE VALVE WAS THEN CYCLED REPEATEDLY WITH SATISFACTORY RESULTS. NO TECH SPECS WERE VIOLATED AND THE EVENT REPRESENTED MINIMAL SAFETY CONSEQUENCE.

[ 66]	COOPER	DOCKET 50-298	LER 85-007
HPCI INOPERABLE DUE TO ISOLATION OF A PRESSURE SWITCH.			
EVENT DATE: 082385		REPORT DATE: 092085	NSSS: GE
			TYPE: BWR

(NSIC 196224) WHILE PERFORMING THE DAILY OPERATION OF THE HPCI SYSTEM AUX OIL PUMP, SHORTLY AFTER STARTUP FROM AN EXTENDED OUTAGE, THE HPCI STEAM SUPPLY STOP VALVE DID NOT OPEN AS REQUIRED. INVESTIGATION REVEALED THAT THE HPCI PUMP LOW SUCTION PRESSURE TURBINE TRIP WAS IN EFFECT WHICH PREVENTED THE HPCI STOP VALVE FROM OPENING. CORRECTIVE ACTION WAS TAKEN IN THE FORM OF TESTING AND CALIBRATION OF THE HPCI PUMP LOW SUCTION PRESSURE SWITCH. DURING THIS PHASE OF THE INVESTIGATION, THE LOW SUCTION PRESSURE SWITCH ISOLATION VALVE WAS FOUND TO BE CLOSED. AFTER RETURNING THE VALVE TO ITS NORMALLY OPEN POSITION, THE HPCI PUMP LOW SUCTION PRESSURE TURBINE TRIP CLEARED AND THE HPCI STOP VALVE OPERATED PROPERLY. THIS EVENT IS CONSIDERED TO BE ATTRIBUTABLE TO PROCEDURAL AND PERSONNEL ERROR, COMPOUNDED BY CHANGING ENVIRONMENTAL CONDITIONS WHICH AFFECTED ACTUATION OF THE ISOLATED PRESSURE SWITCH. IT IS BELIEVED THAT THIS EVENT HAS NO GENERIC IMPLICATIONS.

[ 67]	COOPER	DOCKET 50-298	LER 85-008
GOVERNOR WIRING ERROR CAUSES HPCI TURBINE OVERSPEED.			
EVENT DATE: 082485		REPORT DATE: 092385	NSSS: GE
VENDOR: WOODWARD GOVERNOR COMPANY			TYPE: BWR

(NSIC 196223) AT 1502, 8-24-85, THE HPCI SYSTEM WAS DECLARED INOPERABLE DURING STARTUP FROM AN EXTENDED REFUELING/IGSCC PIPE REPLACEMENT OUTAGE. DURING SURVEILLANCE TESTING TO PROVE AUTO INITIATION OPERABILITY, THE TURBINE TRIPPED ON OVERSPEED. THE HPCI SYSTEM HAD BEEN SUCCESSFULLY TESTED AT 160 PSIG AT 0735, 8-21-85. UPON DECLARATION OF SYSTEM INOPERABILITY, THE ACTIVE COMPONENTS OF THE

OTHER COOLANT INJECTION SYSTEMS AND THE AUTOMATIC DEPRESSURIZATION SYSTEM WERE PROMPTLY TESTED AND VERIFIED OPERABLE IN ACCORDANCE WITH TECH SPECS. SUBSEQUENT TROUBLESHOOTING DETERMINED THAT THE ELECTRICAL CONNECTIONS BETWEEN THE GOVERNOR CONTROL AND THE GOVERNOR VALVE ELECTRO-HYDRAULIC SERVO WERE IN ERROR, CAUSING THE GOVERNOR VALVE TO FAIL FULL OPEN. THE SYSTEM WAS SUCCESSFULLY RETESTED AND RETURNED TO SERVICE APPROX 25 HRS AFTER IT WAS DECLARED INOPERABLE. NO TECH SPECS WERE VIOLATED AND THE EVENT REPRESENTED MINIMAL SAFETY CONSEQUENCE. APPLICABLE OPERATING PROCEDURES HAVE BEEN REVISED TO FUNCTIONALLY TEST THE HPCI GOVERNOR CONTROL SYSTEM DURING THE LOW PRESSURE SURVEILLANCE TESTING.

[ 68] COOPER DOCKET 50-298 LER 85-009  
HPCI STEAM INLET VALVE FAILS TO OPEN.  
EVENT DATE: 082585 REPORT DATE: 092485 NSSS: GE TYPE: BWR  
VENDOR: ANCHOR VALVE CO.  
LIMITORQUE CORP.

(NSIC 196278) AT 0200, 8-25-85, THE STEAM INLET VALVE TO THE HPCI SYSTEM FAILED TO OPEN WITH THE MOTOR OPERATOR. THE HPCI SYSTEM HAD BEEN DECLARED INOPERABLE 11 HRS EARLIER DUE TO FAILURE OF THE TURBINE GOVERNOR SYSTEM (REFERENCE LER 85-008). IN ACCORDANCE WITH TECH SPECS, TESTING WAS ALREADY IN PROGRESS TO VERIFY OPERABILITY OF THE OTHER COOLANT INJECTION SYSTEMS AND THE AUTOMATIC DEPRESSURIZATION SYSTEM DUE TO HPCI INOPERABILITY. THE VALVE WAS MANUALLY UNSEATED AND STROKED SEVERAL TIMES WITH THE MOTOR OPERATOR. AMPERAGE READINGS TAKEN INDICATED NO ADJUSTMENTS OR REPAIRS WERE NECESSARY AND THAT THE OPERATOR AND VALVE WERE OPERATING FREELY. THE VALVE WAS RETURNED TO SERVICE APPROX 2 HRS AFTER FIRST DISCOVERY OF INOPERABILITY. THE VALVE HAS BEEN FUNCTIONALLY TESTED SATISFACTORILY ON SEVERAL OCCASIONS IN THE LAST 30 DAYS. NO TECH SPECS WERE VIOLATED AND THE EVENT REPRESENTED MINIMAL SAFETY CONSEQUENCE. ONE KNOWN FACTOR MAY HAVE CONTRIBUTED TO THE VALVE STICKING IN THE SEAT. THE VALVE DISK (GATE) HAD BEEN RESTELLITED DURING THE OUTAGE. THE FAILURE OF THE VALVE TO OPEN IS NOT CONSIDERED GENERIC OR RECURRENT IN NATURE. NO CORRECTIVE ACTION IS PLANNED.

[ 69] CRYSTAL RIVER 3 DOCKET 50-302 LER 85-010  
FAILURE TO OBTAIN GRAB SAMPLES FROM CONDESER VACUUM PUMP EXHAUST SYSTEM.  
EVENT DATE: 080885 REPORT DATE: 090985 NSSS: BW TYPE: PWR

(NSIC 195954) ON AUGUST 7, 1985 AT 0543, CRYSTAL RIVER UNIT 3 ENTERED OPERATIONAL MODE 4, "HOT SHUTDOWN," FROM MODE 5 DURING THE ASCENSION PROCESS FOLLOWING A REFUELING AND MODIFICATION OUTAGE. TECH SPECS REQUIRE THAT THE CONDENSER VACUUM PUMP EXHAUST MONITOR, RM-A12, BE OPERABLE IN MODE 4 OR THAT GRAB SAMPLES BE TAKEN ONCE EVERY 24 HOURS. THIS MONITOR HAD UNDERGONE REPAIR DURING THE OUTAGE AND HAD NOT YET BEEN RETURNED TO SERVICE. THE NUCLEAR SHIFT SUPERVISOR FAILED TO RECOGNIZE THAT ENTRY INTO MODE 4 REQUIRED ENTRY INTO THE ASSOCIATED ACTION STATEMENT FOR RM-A12. NO NOTIFICATION WAS MADE TO THE CHEMISTRY-RADIATION DEPARTMENT THAT GRAB SAMPLES WERE REQUIRED, AND THE SAMPLES WERE NOT TAKEN ON AUGUST 8 AS REQUIRED BY THE ACTION STATEMENT. THE ERROR WAS RECOGNIZED ON AUGUST 9, 1985 AND THE FIRST GRAB SAMPLE WAS TAKEN AT 1110. THE CAUSE OF THIS FAILURE TO RECOGNIZE ENTRY INTO AN ACTION STATEMENT IS PROCEDURE INADEQUACY. THIS APPLICABLE PROCEDURE WILL BE REVISED.

[ 70] CRYSTAL RIVER 3 DOCKET 50-302 LER 85-012  
TWELVE UNPLANNED ACTUATIONS OF EMERGENCY FEEDWATER SYSTEM.  
EVENT DATE: 080985 REPORT DATE: 091385 NSSS: BW TYPE: PWR

(NSIC 196392) FROM AUGUST 9 THROUGH AUGUST 16, 1985, CRYSTAL RIVER UNIT 3 WAS PERFORMING A PLANT HEATUP/STARTUP FOLLOWING A REFUELING AND MODIFICATION OUTAGE. DURING THIS PERIOD, THE LOW STEAM GENERATOR LEVEL FEATURE OF THE EMERGENCY FEEDWATER INITIATION AND CONTROL (EFIC) SYSTEM ACTUATED 12 TIMES. THE EFIC

SYSTEM WAS INSTALLED DURING THE OUTAGE. THERE WERE TWO CAUSES OF THE ACTUATIONS. SIX EVENTS WERE DUE TO A SMALL MARGIN BETWEEN THE NORMAL STEAM GENERATOR LEVEL CONTROL SETPOINT AND THE EPIC LOW LEVEL ACTUATION SETPOINT. SIX OF THE EVENTS WERE CAUSED BY PRESSURE SURGES RESULTING FROM VALVE MANIPULATIONS FOR THE LEVEL TRANSMITTERS WHICH ARE LOCATED ON A COMMON HEADER. IN EACH CASE THE EPIC ACTUATION PARAMETERS WERE VERIFIED TO BE WITHIN NORMAL LIMITS, THEN THE EMERGENCY FEEDWATER WAS RETURNED TO STANDBY STATUS. TECH SPEC 3.7.1.2 REQUIRES TWO OPERABLE TRAINS WITH PROVISIONS FOR CONTINUED OPERATION FOR 72 HOURS WITH ONLY ONE EMERGENCY FEEDWATER TRAIN OPERABLE. WHEN RETURNING THE EMERGENCY FEEDWATER SYSTEMS TO STANDBY STATUS, BOTH EMERGENCY FEEDWATER TRAINS ARE SIMULTANEOUSLY PLACED IN MANUAL CONTROL WHICH PREVENTS AUTOMATIC ACTUATION. IN EACH CASE, TECH SPEC 3.0.3 WAS BRIEFLY ENTERED. THE MARGIN BETWEEN SETPOINTS WAS INCREASED BY RAISING THE NORMAL LEVEL CONTROL SETPOINT FOR THE STEAM GENERATORS. A TECH SPEC CHANGE WILL BE REQUESTED TO PERMIT BYPASSING THE EPIC CHANNELS DURING MAINTENANCE.

[ 71] CRYSTAL RIVER 3 DOCKET 50-302 LER 85-011  
FAILURE TO PERFORM SUMP PUMPS OPERABILITY VERIFICATION AND BREAKER ALIGNMENT  
VERIFICATION.  
EVENT DATE: 081285 REPORT DATE: 091185 NSSS: BW TYPE: PWR

(NSIC 196391) ON AUGUST 11, 1985, THE "A" EMERGENCY DIESEL GENERATOR WAS OUT OF SERVICE FOR MAINTENANCE. IN ACCORDANCE WITH TECH SPECS THE OPERABILITY OF THE SUMP PUMPS IN THE TUNNEL CONTAINING THE DC CONTROL FEEDS TO THE 230KV SWITCHGEAR AND THE CORRECT BREAKER ALIGNMENTS FOR THE REMAINING POWER SOURCES SHALL BE VERIFIED ONCE EVERY EIGHT HOURS. DUE TO OPERATOR ERROR, THIS WAS NOT PERFORMED FOR A PERIOD OF 12 HOURS AND 45 MINUTES BETWEEN 0700 AUGUST 12, 1985 AND 1945 AUGUST 12, 1985. THIS INCIDENT WILL BE CRITIQUED WITH THE OPERATIONS GROUP AND PROCEDURAL CHANGES WILL BE IMPLEMENTED TO PREVENT RECURRENCE OF THIS EVENT. ADDITIONAL ADMINISTRATIVE CONTROLS WILL BE EFFECTED TO ALERT THE OPERATORS TO SPECIAL SURVEILLANCE REQUIREMENTS.

[ 72] DAVIS-BESSE 1 DOCKET 50-346 LER 83-060 REV 1  
UPDATE ON CONTAINMENT ISOLATION VALVES FAILURE TO OPERATE.  
EVENT DATE: 110483 REPORT DATE: 072585 NSSS: BW TYPE: PWR  
VENDOR: LIMITORQUE CORP.

(NSIC 196191) ON 11-4-83 AT 1040 HRS, HYDROGEN DILUTION TRAIN 1 CONTAINMENT ISOLATION VALVE CV5090 FAILED TO OPEN ELECTRICALLY. SINCE THE UNIT WAS ALREADY IN THE ACTION STATEMENT OF TECH SPEC 3.6.4.3 DUE TO TRAIN 2 BEING OUT OF SERVICE, THE UNIT ENTERED THE ACTION STATEMENT OF TECH SPEC 3.0.3. ON 11-4-83 AT 1040 HRS AND ON 11-10-83 AT 0230 HRS, CONTAINMENT VACUUM BREAKER ISOLATION VALVES CV5071 AND CV5070, RESPECTIVELY, FAILED, PLACING THE UNIT IN THE ACTION STATEMENT OF TECH SPEC 3.6.3.1. THE CAUSE OF FAILURE OF CV5090 WAS A FAILURE OF THE TORQUE SWITCH. THE TORQUE SWITCH WAS REPLACED, AND THE VALVE TESTED PER ST 5064.01. CV5090 WAS RETURNED TO SERVICE AT 1435 HRS ON 11-4-83, REMOVING THE UNIT FROM THE ACTION STATEMENT OF TECH SPEC 3.0.3. CV5071 FAILED DUE TO AN IMPROPERLY INSTALLED GEAR LIMIT SWITCH. CV5070 FAILED DUE TO A FAULTY CONTROL SWITCH.

[ 73] DAVIS-BESSE 1 DOCKET 50-346 LER 85-012  
WIRING ERROR FOR AUX FEEDWATER CONTROL ROOM PANEL INDICATORS.  
EVENT DATE: 060385 REPORT DATE: 070285 NSSS: BW TYPE: PWR

(NSIC 196241) ON 6-3-85, DURING THE PERFORMANCE OF THE AUX FEEDWATER SYSTEM REFUELING TEST ST 5071.02, IT WAS NOTED THAT 1 OF THE 2 CONTROL ROOM PANEL FLOW METERS WAS INDICATING FLOW. IN THIS TEST RECIRCULATION FLOWPATH THE FLOW ELEMENT SHOULD SEE NO FLOW. A CHECK OF THE REDUNDANT FLOW METER AND COMPUTER POINT CONCLUDED THAT THE PROBLEM WAS IN THE FLOW INDICATOR FI4521. THE STATION ENTERED THE ACTION STATEMENT OF TECH SPEC 3.3.3.6 WHICH REQUIRES THE INDICATION BE

RESTORED WITHIN 30 DAYS. THE STATION WAS IN MODE 3 (HOT STANDBY) AT THE TIME OF THE OCCURRENCE. THE PROBLEM WAS CORRECTED THE NEXT DAY BEFORE STARTING UP. THE INVESTIGATION FOUND THE DUAL INDICATING PANEL METERS PI4521 AND PI505 HAD THEIR LEADS REVERSED. THIS PROBABLY OCCURRED ON 3-29-85, WHEN THE METER WAS REPLACED. THEREFORE, THIS IS REPORTABLE UNDER 10 CFR 50.73(A)(2)(I)(B).

[ 74]       DAVIS-BESSE 1                               DOCKET 50-346       LER 85-013  
 REACTOR TRIP AND TOTAL LOSS OF FEEDWATER.  
 EVENT DATE: 060985   REPORT DATE: 070985       NSSS: BW       TYPE: PWR  
 VENDOR: CROSBY VALVE  
          FISHER FLOW CONTROL DIV (ROCKWELL INT)  
          GEN ELEC CO (STEAM TURB/ENGRD PROD)  
          LIMITORQUE CORP.  
          ROSEMOUNT, INC.

(NSIC 196242) ON 6-9-85 THE NO. 1 MAIN FEED PUMP TURBINE INCREASED IN SPEED DUE TO A CONTROL FAILURE AND TRIPPED ON OVERSPEED. AN AUTOMATIC PLANT RUNBACK WAS INITIATED. A REACTOR TRIP OCCURRED AT 80% OF FULL POWER ON HIGH RCS PRESSURE. WITHIN 8 SECS OF THE REACTOR TRIP, BOTH MSIV'S CLOSED FROM A SPURIOUS STEAM AND FEEDWATER RUPTURE CONTROL SYSTEM ACTUATION ISOLATING STEAM TO THE NO. 2 MAIN FEED PUMP TURBINE. STEAM GENERATOR WATER LEVELS DECREASED TO THE LOW SG LEVEL TRIP SETPOINT OF THE STEAM AND FEEDWATER RUPTURE CONTROL SYSTEM (SFRCS) AT APPROX 5 1/2 MINS AFTER THE REACTOR TRIP. THE AUX FEEDWATER SYSTEM WAS ACTUATED BY A CONTROL ROOM OPERATOR, WHILE ATTEMPTING TO MANUALLY INITIATE THE SFRCS, INCORRECTLY ACTUATED THE SFRCS ON LOW STEAM PRESSURE INSTEAD OF THE DESIRED LOW SG LEVEL. THEREFORE, EACH SFRCS ACTUATION CHANNEL SENSED THAT ITS RESPECTIVE SG WAS DEPRESSURIZED. BOTH ACTUATION CHANNELS CLOSED THEIR RESPECTIVE AUX FEEDWATER CONTAINMENT ISOLATION VALVES (AF599, AF608), WHICH PREVENTED ANY AUX FEEDWATER FLOW FROM REACHING THE SG'S, LATER THE AUX FEEDWATER PUMPS TRIPPED ON OVERSPEED. RCS TEMPERATURE AND PRESSURE INCREASED DUE TO THE LOSS OF HEAT TRANSFER. THE PRESSURIZER PORV ACTUATED 3 TIMES AND DID NOT RESEAT AT THE PROPER RCS PRESSURE AFTER THE THIRD ACTUATION. OPERATORS PLACED THE STARTUP FEED PUMP IN OPERATION AND LOCALLY RESTORED BOTH AUX FEED PUMPS TO SERVICE.

[ 75]       DAVIS-BESSE 1                               DOCKET 50-346       LER 85-016  
 HIGH PRESSURE INJECTION PUMPS' STARTUP STRAINERS FOUND STILL INSTALLED.  
 EVENT DATE: 080285   REPORT DATE: 083085       NSSS: BW       TYPE: PWR

(NSIC 196357) ON 8-2-85, TOLEDO EDISON DETERMINED THAT STRAINERS FOUND STILL INSTALLED IN THE SUCTION PIPING OF THE HIGH PRESSURE INJECTION PUMPS WAS A CONDITION NOT CONSIDERED IN THE OPERATING DESIGN. THE STRAINERS WERE FOUND DURING MAINTENANCE TO REPAIR A SLIGHT FLANGE LEAK. THE STRAINERS HAD BEEN PLACED IN THE SUCTION PIPING DURING CONSTRUCTION AND WERE TO BE IN PLACE DURING SYSTEM FLUSHING TO PREVENT ANY DEBRIS FROM REACHING THE PUMPS. HOWEVER, THE STRAINERS SHOULD HAVE BEEN REMOVED AFTER SYSTEM FLUSHING PRIOR TO FUNCTIONAL TESTING. OTHER SYSTEMS WERE ALSO CHECKED AND NO OTHER STARTUP STRAINERS WERE FOUND STILL INSTALLED. THIS CHECK INCLUDED THE DECAY HEAT/LOW PRESSURE INJECTION PUMPS, THE CONTAINMENT SPRAY PUMPS, AND THE COMPONENT COOLING WATER PUMPS. THE STRAINERS IN BOTH HIGH PRESSURE INJECTION PUMPS WILL BE REMOVED PRIOR TO MODE 3 (HOT STANDBY) OPERATION. THE FINDING IS REPORTABLE UNDER 10 CFR 50.73(A)(2)(II) AS A CONDITION OUTSIDE THE DESIGN BASIS OF THE PLANT.

[ 76]       DIABLO CANYON 1                           DOCKET 50-275       LER 85-021  
 AXIAL FLUX DIFFERENCE OUTSIDE TARGET BAND.  
 EVENT DATE: 061885   REPORT DATE: 071885       NSSS: WE       TYPE: PWR

(NSIC 196214) ON JUNE 18, 1985 AT 0647 HOURS, THE INDICATED AXIAL FLUX DIFFERENCE (AFD) WENT OUTSIDE OF THE 5% TARGET BAND REQUIRED PER TECH SPEC 3.2.1. PLANT

OPERATORS WERE UNABLE TO REDUCE THE AFD TO WITHIN THE TARGET BAND OR REDUCE REACTOR POWER TO LESS THAN 90% WITHIN 15 MINUTES IN ACCORDANCE WITH ACTION STATEMENTS 3.2.1.A.1.A) OR 3.2.1.A.1.B), RESPECTIVELY. THE CAUSE OF THIS EVENT WAS RAPID XENON BURNOUT AFTER A POWER ESCALATION TO 100% AT A RATE OF APPROXIMATELY 9 MEGAWATTS/MINUTE. THE AFD WAS RESTORED TO WITHIN THE TARGET BANK IN 17.1 MINUTES. TO PREVENT RECURRENCE, AN ADMINISTRATIVE PLANT LOADING/UNLOADING RATE LIMIT OF 5 MEGAWATTS/MINUTE HAS BEEN IMPLEMENTED FOR USE DURING THE COURSE OF NORMAL PLANT LOAD CHANGES. THIS LIMIT IS NOT APPLICABLE TO LOAD SWINGS NECESSARY TO MAINTAIN THE PLANT ON LINE WITH EQUIPMENT PROBLEMS, OR TO COMPLY WITH TECH SPEC-REQUIRED ACTIONS WHICH DEMAND HIGHER LOADING/UNLOADING RATES.

[ 77]        DRESDEN 3                                DOCKET 50-249        LER 85-015  
TESTING ERROR RESULTS IN INADVERTENT START OF THE STANDBY GAS TREATMENT SYSTEM.  
EVENT DATE: 082085        REPORT DATE: 090985        NSSS: GE                TYPE: BWR

(NSIC 196206) WHILE PERFORMING DIS 1700-7, REACTOR BUILDING VENTILATION SYSTEM AND REFUEL FLOOR RADIATION MONITOR FUNCTIONAL TEST, THE REACTOR BUILDING VENTILATION SYSTEM WAS INADVERTENTLY TRIPPED AND ISOLATED. THE STANDBY GAS TREATMENT (SBGT) SYSTEM AUTOMATICALLY STARTED AS REQUIRED. THIS EVENT WAS CAUSED BY A PROCEDURAL VIOLATION. WHILE FUNCTIONALLY TESTING THE A CHANNEL REFUEL FLOOR RADIATION MONITOR THE INSTRUMENT MECHANIC PROPERLY JUMPERED THE TRIP FUNCTION ASSOCIATED WITH THIS MONITOR, BUT INADVERTENTLY DEPRESSED THE TRIP CHECK SWITCH FOR THE REACTOR BUILDING VENTILATION SYSTEM MONITOR INSTEAD OF THE TRIP CHECK SWITCH FOR THE REFUEL FLOOR RADIATION MONITOR. THIS SUBSEQUENTLY CAUSED THE REACTOR BUILDING VENTILATION SYSTEM ISOLATION AND SBGT INITIATION. THE INSTRUMENT MECHANIC RESPONSIBLE FOR THIS EVENT WAS SPOKEN TO ABOUT HIS ERROR. IN ADDITION, TO PREVENT THIS EVENT FROM RECURRING A TAILGATE DESCRIBING THIS EVENT WILL BE PRESENTED TO THE INSTRUMENT MAINTENANCE DEPARTMENT. THIS EVENT WAS OF MINIMAL SAFETY SIGNIFICANCE SINCE THE SBGT SYSTEM AUTO-STARTED AS DESIGNED. THIS IS THE FIRST OCCURRENCE OF AN EVENT OF THIS TYPE.

[ 78]        DRESDEN 3                                DOCKET 50-249        LER 85-016  
HPCI ROOM COOLER BREAKER FAILED.  
EVENT DATE: 082685        REPORT DATE: 092385        NSSS: GE                TYPE: BWR  
VENDOR: GENERAL ELECTRIC CO.

(NSIC 196266) DURING NORMAL UNIT OPERATION, WHILE CONDUCTING ROUTINE ROUNDS, THE UNIT 3 EQUIPMENT ATTENDANT (EA) OBSERVED THE HPCI ROOM COOLER FAN BREAKER SMOKING. THE EA IMMEDIATELY RACKED THE BREAKER OUT AND INFORMED THE SHIFT FOREMAN OF THIS EVENT. PER TECH SPEC 3.5.C, HPCI WAS DECLARED INOPERABLE AND A WORK REQUEST INITIATED. UPON INVESTIGATION INTO THIS EVENT, ELECTRICAL MAINTENANCE FOUND A SHORTED MOTOR CONTACTOR COIL. THE CONTACTOR COIL AND AUX CONTACTS WERE REPLACED. DRESDEN MAINTENANCE PROCEDURE (DMP 7300-5), INSPECTION AND MAINTENANCE OF 480V MCC BREAKERS AND CONTACTORS, WAS PERFORMED. THE ROOM COOLER WAS SUCCESSFULLY OPERATED AND HPCI DECLARED OPERABLE ON 8-26-85 AT 1440. THE SAFETY SIGNIFICANCE OF THIS EVENT WAS MINIMAL SINCE THE ISOLATION CONDENSER AND AUTOMATIC DEPRESSURIZATION SYSTEM WERE OPERABLE AND CAPABLE OF RELIEVING HIGH REACTOR PRESSURE. THIS IS THE FIRST FAILURE OF THE HPCI ROOM COOLER MOTOR CONTACTOR COIL AT DRESDEN.

[ 79]        DRESDEN 3                                DOCKET 50-249        LER 85-017  
FUEL POOL CLEANUP ACTIVITIES TRIP ARF4        RADIATION MONITOR.  
EVENT DATE: 090585        REPORT DATE: 100185        NSSS: GE                TYPE: BWR  
OTHER UNITS INVOLVED: DRESDEN 2 (BWR)

(NSIC 196324) ON SEPTEMBER 5, 1985, AT 1444 HOURS, A UNIT 3 REACTOR BUILDING FUEL POOL CHANNEL 'B' HIGH RADIATION TRIP WAS RECEIVED. THE SIGNAL CAUSED THE

ANTICIPATED UNIT 3 REACTOR BUILDING VENTILATION SYSTEM TRIP AND INITIATED THE OPERATION OF THE STANDBY GAS TREATMENT SYSTEM. THE UNIT 2 REACTOR BUILDING VENTILATION SYSTEM WAS SUBSEQUENTLY TRIPPED. HIGH RADIATION WAS DETECTED IN THE FUEL POOL AREA. A WATER-FILLED BUCKET, WHICH WAS USED IN THE FUEL POOL CLEANUP PROGRAM, WAS REMOVED FROM THE FUEL POOL AND CHECKED FOR RADIATION. WHILE DRAINING THE BUCKET, SMALL CHIPS IN THE BUCKET WERE UNCOVERED. THE ACTIVITY OF THE CHIPS CAUSED THE AREA RADIATION MONITORS TO SPIKE AND THUS CAUSE THE REACTOR BUILDING VENTILATION SYSTEM TRIP. THE BUCKET WAS IMMEDIATELY IMMERSUED IN THE FUEL POOL. THE SAFETY SIGNIFICANCE WAS MINIMAL BECAUSE THE DOSE RATE RECEIVED BY THE FUEL HANDLER WAS SMALL, AND ALL SYSTEMS AND PERSONNEL RESPONDED PROPERLY. FOR THIS REASON, NO CORRECTIVE ACTION IS NECESSARY. THIS TYPE OF EVENT LAST OCCURRED ON JULY 16, 1985 AND WAS REPORTED IN LER NO. 85-030-0, UNDER DOCKET 050237.

[ 80] DRESDEN 3 DOCKET 50-249 LER 85-020  
NO PARTICULATE SAMPLE TAKEN FOR REACTOR BUILDING VENTILATION SYSTEM.  
EVENT DATE: 092585 REPORT DATE: 102485 NSSS: GE TYPE: BWR

(NSIC 196380) WITH THE REACTOR IN THE SHUTDOWN MODE, A RADIATION CHEMISTRY TECHNICIAN (RCT) DISCOVERED THAT THE SCREEN BACKING UP THE UNIT 3 REACTOR BLDG VENTILATION PARTICULATE FILTER SAMPLE COLLECTOR WAS NOT REPLACED IN THE FILTER HOLDER. THE MISSING SCREEN ALLOWED THE FILTER TO RIP AND CONSEQUENTLY NO SAMPLE WAS COLLECTED FOR THE WEEK. THIS EVENT CONSTITUTES A VIOLATION OF TECH SPEC TABLE 4.8.1 WHICH REQUIRES THAT A CONTINUOUS PARTICULATE SAMPLE BE COLLECTED AND COUNTED ONCE PER 7 DAYS. THE RCT WHO PULLED THE PRIOR WEEK'S FILTERED SAMPLE FAILED TO REINSTALL THE BACKING SCREEN WHEN ASSEMBLING THE FILTER SAMPLE COLLECTOR. THIS EVENT STARTED ON SHIFT 2 (0700-1500) ON 9-18-85 AND WAS DISCOVERED AT 1500 HRS ON 9-25-85. THE RESPONSIBLE SUPERVISOR ADMONISHED THE RCT FOR FAILING TO PROVIDE SUFFICIENT ATTENTION TO HIS ASSIGNED TASKS. CONSEQUENTLY, THIS EVENT CAN BE ATTRIBUTED TO PERSONNEL ERROR. FURTHER CORRECTIVE ACTION WILL INCLUDE THE PLACEMENT OF SIGNS INDICATING THAT THE SCREEN MUST BE REINSTALLED DURING ASSEMBLY. THE REACTOR BLDG VENTILATION SYSTEM EXHAUST DUCT RADIATION MONITORS, REFUEL FLOOR RADIATION MONITORS WERE OPERABLE AND CAPABLE OF ISOLATING THE REACTOR BLDG VENTILATION SYSTEM IF A GROSS AMOUNT OF RADIOACTIVE MATERIAL WAS DETECTED. THE SYSTEM PARTICULATE IODINE AND NOBLE GAS MONITOR (SPING) WERE ALSO OPERABLE AND MONITORING THE REACTOR BLDG VENTILATION STACK. PREVIOUS EVENT REPORTED BY DVR 12-3-85-75.

[ 81] FARLEY 1 DOCKET 50-348 LER 85-015  
NUCLEAR INSTRUMENTATION RATE TRIPS SET NONCONSERVATIVELY.  
EVENT DATE: 092585 REPORT DATE: 101485 NSSS: WE TYPE: PWR  
OTHER UNITS INVOLVED: FARLEY 2 (PWR)

(INSC 196446) IN 6-85 IT WAS DETERMINED THAT, DUE TO AN INCORRECT INTERPRETATION OF INFO SUPPLIED BY THE REACTOR VENDOR AND THE RESULTING PROCEDURAL INADEQUACY, THE POTENTIAL EXISTED FOR THE NUCLEAR POWER RANGE INSTRUMENTATION POSITIVE AND NEGATIVE RATE TRIPS TO BE SET NONCONSERVATIVELY. AS A PRECAUTION, THE PROCEDURES FOR ADJUSTING THE RATE TRIPS WERE REVISED AND THE SETTINGS WERE MADE MORE CONSERVATIVE ON 6-19-85. ADDITIONALLY, THE REACTOR VENDOR WAS REQUESTED TO DETERMINE IF THE SETTINGS THAT EXISTED PRIOR TO 6-19-85 WERE WITHIN THE TECH SPEC TOLERANCE AND, FURTHER, TO DETERMINE IF THESE SETTINGS WERE CONSISTENT WITH THE LICENSING BASIS OF THE PLANT. ON 9-25-85 IT WAS DETERMINED THAT THE POSITIVE AND NEGATIVE RATE TRIP SETTINGS WHICH EXISTED PRIOR TO 6-19-85 HAD BEEN OUTSIDE THE TECH SPEC TOLERANCE. THIS SINGLE CONDITION CAUSED THE RATE TRIPS OF THE 4 INDEPENDENT NUCLEAR INSTRUMENTATION CHANNELS TO BE OUTSIDE THE TECH SPEC ALLOWABLE VALUES. TECH SPECS REQUIRE THE RATE TRIPS TO BE SET AT LESS THAN OR EQUAL TO 5.5% OF RATED THERMAL POWER WITH A TIME CONSTANT GREATER THAN OR EQUAL TO 2.0 SECS. THE ACTUAL SETTINGS FOR THE POWER CHANGE IN 2 SECS RANGED FROM 7.25 TO 7.5% FOR BOTH UNITS. IT WAS ALSO DETERMINED THAT, EVEN THOUGH THE RATE TRIPS

HAD BEEN SET NONCONSERVATIVELY, THOSE SETTINGS FELL WITHIN THE ORIGINAL DESIGN BASIS OF THE PLANT.

[ 82]      FERMI 2      DOCKET 50-341      LER 85-056  
NO LEAK TEST AFTER MAINTENANCE ON THERMAL RECOMBINER.  
EVENT DATE: 062085      REPORT DATE: 100485      NSSS: GE      TYPE: BWR

(NSIC 196403) ON 8-26-85 PLANT STAFF DETERMINED THAT A LEAK RATE TEST HAD NOT BEEN PERFORMED AFTER MAINTENANCE ON THE DIV II THERMAL RECOMBINER ON 6-20-85. THIS IS A VIOLATION OF TECH SPEC 4.6.6.1.C WHICH REQUIRES MEASURING THE LEAK RATE AS PART OF THE PRIMARY CONTAINMENT INTEGRATED LEAK RATE TEST. A LEAK TEST OF THE DIV II RECOMBINER PERFORMED ON 8-29 INDICATED THAT LEAKAGE EXCEEDED THAT ALLOWED BY TECH SPEC 3.6.1.2 (394 SCFH MEASURED VS 162 SCFH ALLOWED LEAKAGE). THIS IS REPORTABLE AS A CONDITION THAT RESULTED IN A DEGRADATION OF PRIMARY CONTAINMENT INTEGRITY AND OPERATION PROHIBITED BY THE PLANT'S TECH SPECS. A LEAKING GASKET WAS REPLACED, THE LEAK TEST WAS REPEATED AND THE MEASURED LEAK RATE WAS 1.38 SCFH. THE LEAKING GASKET APPARENTLY WAS DAMAGED WHEN A MECHANICAL SEAL WAS REPLACED IN JUNE. PERSONNEL ERRED IN SIGNING A WORK ORDER AS COMPLETE EVEN THOUGH THE SPECIFIED POST-MAINTENANCE LEAKAGE TEST HAD NOT BEEN COMPLETED.

[ 83]        FERMI 2                                  DOCKET 50-341              LER 85-030  
REACTOR SCRAM CAUSED BY SPURIOUS LOW REACTOR WATER LEVEL SIGNAL.  
EVENT DATE: 070185     REPORT DATE: 073185     NSSS: GE                      TYPE: BWR

(NSIC 195997) ON 7-1-85 AT 1432 HRS A REACTOR SCRAM OCCURRED. THE SCRAM WAS CAUSED BY A SPURIOUS REACTOR WATER LEVEL 3 SIGNAL. THE SIGNAL WAS GENERATED WHEN AN INSTRUMENT VALVE WAS OPENED DURING SURVEILLANCE TESTING OF A NARROW RANGE REACTOR WATER LEVEL INSTRUMENT. THE CAUSE OF THE EVENT WAS FAILURE TO FOLLOW PROCEDURE ON THE PART OF THE TECHNICIAN PERFORMING THE SURVEILLANCE TEST. APPROPRIATE PERSONNEL ARE BEING INFORMED OF THIS EVENT BY PLACING THIS LER ON A REQUIRED READING LIST.

[ 84]           FERMI 2                                 DOCKET 50-341           LER 85-032  
RWCU ISOLATION VALVES LEFT OPEN.  
EVENT DATE: 070485      REPORT DATE: 080385      NSSS: GE           TYPE: BWR

(NSIC 195998) ON 7-4-85 THE INBOARD AND OUTBOARD PRIMARY CONTAINMENT ISOLATION VALVES FOR THE RWC SYSTEM WERE LEFT IN THE OPEN POSITION WITH FLOW TO THE RWC PUMPS AND THE BREAKERS DEENERGIZED. THIS DEFEATED THE ISOLATION FUNCTION OF THESE VALVES, AND WAS A VIOLATION OF TECH SPEC 3/4.6.3. THIS CONDITION EXISTED FOR APPROX 1-1/2 HRS, WHILE THE PLANT WAS IN OPERATIONAL CONDITION 2 AND REACTOR POWER BETWEEN 2 AND 3%. WHEN THE CONDITION WAS FOUND, A PLANT SHUTDOWN WAS COMMENCED AS REQUIRED BY TECH SPEC AND WITHIN A HALF HR THE VALVES WERE MADE OPERABLE. THE CAUSE OF THIS EVENT WAS PERSONNEL ERROR.

[ 85]	FERMI 2	DOCKET 50-341	LER 85-035
REACTOR SCRAM DUE TO LOW WATER LEVEL.			
EVENT DATE: 070985		REPORT DATE: 080885	NSSS: GE TYPE: BWR

(NSIC 195999) ON 7-9-85 A REACTOR SCRAM OCCURRED DUE TO AN ACTUAL REACTOR WATER LEVEL 3 CONDITION. THE SCRAM WAS ACTUATED BY ALL 4 RPS SYSTEM CHANNELS. THE PLANT RESPONDED AS DESIGNED. THE SCRAM RESULTED FROM A SLOW WATER LEVEL DECREASE THAT STARTED WHEN REACTOR PRESSURE WAS MANUALLY INCREASED. THE INCREASE WAS JUST SUFFICIENT TO OVERCOME FEEDWATER PUMP DISCHARGE PRESSURE. THE FEEDWATER TURBINE WAS ALSO IN MANUAL AND DID NOT, THEREFORE, AUTOMATICALLY COMPENSATE FOR THE INCREASE IN DISCHARGE HEAD. FEEDWATER CONTROL WAS IN AUTOMATIC AND WAS UNABLE TO MAINTAIN LEVEL BY FURTHER OPENING THE FEEDWATER STARTUP LEVEL CONTROL VALVE.

PRIOR TO THE EVENT THE PLANT WAS IN OPERATIONAL CONDITION 2 (STARTUP) WITH REACTOR POWER AT 2%. A POST-SCRAM EVALUATION WAS PERFORMED, REQUIRED SURVEILLANCES ACCOMPLISHED, AND REACTOR CRITICALITY REESTABLISHED AT 0935 HRS ON 7-10-85.

[ 86]        FERMI 2                                DOCKET 50-341                LER 85-036  
RWCU ISOLATION VALVES LEFT OPEN.  
EVENT DATE: 071085        REPORT DATE: 080985        NSSS: GE                    TYPE: BWR

(NSIC 196000) ON 7-10-85 THE INBOARD AND OUTBOARD PRIMARY CONTAINMENT ISOLATION VALVES FOR THE RWC SYSTEM WERE LEFT IN THE OPEN POSITION WITH FLOW TO THE RWC PUMPS AND THE BREAKERS FOR THE VALVES DEENERGIZED. AT THE TIME THE PLANT WAS IN OPERATIONAL CONDITION 2 AND REACTOR POWER AT LESS THAN 1%. THIS DEFEATED THE AUTOMATIC ISOLATION FUNCTION OF THESE VALVES, AND WAS A VIOLATION OF TECH SPEC 3.6.3. THIS CONDITION EXISTED FOR ABOUT 2 HRS AND 25 MINS WHILE PERFORMING A 31 DAY CHANNEL FUNCTIONAL TEST OF THE RWC DELTA FLOW INSTRUMENTATION. THE TEST IS REQUIRED BY TECH SPEC SECTION 4.3.2.1 AND TABLE 4.3.2.1-1.2.A. THE SURVEILLANCE TEST PROCEDURE WAS IN ERROR AND REQUIRED THAT THE VALVES BE DEENERGIZED WHILE IN THE OPEN CONDITION. THE SURVEILLANCE TEST PROCEDURE HAS BEEN CORRECTED.

[ 87]           FERMI 2                                 DOCKET 50-341           LER 85-048  
LOSS OF SECONDARY CONTAINMENT DURING SURVEILLANCE TEST.  
EVENT DATE: 072485      REPORT DATE: 090585      NSSS: GE           TYPE: BWR

(INSC 196236) ON 7-24-85 WITH THE PLANT IN MODE 3, SECONDARY CONTAINMENT VACUUM WAS LESS THAN REQUIRED BY TECH SPECS FOR APPROX 40 MINS. THIS RESULTED FROM A SEQUENCE OF EVENTS PREVIOUSLY UNIDENTIFIED. FOLLOWING A PLANNED TRIP OF REACTOR BLDG HVAC AT 1836 HRS, THE OPERATOR ATTEMPTED TO RESTORE RBHVAC TWICE UNSUCCESSFULLY. AT 1838 HRS THE OPERATOR RESTARTED AN EXHAUST FAN-SUPPLY FAN PAIR. BY THAT TIME, RB VACUUM WAS LESS THAN 0.125 INCH OF WATER. AT 1917 HRS HE STARTED A SECOND EXHAUST FAN-SUPPLY FAN SET, RESTORING RB VACUUM. THIS EVENT REVEALED THAT THE RBHVAC EXHAUST ISOLATION DAMPER REOPENED WHEN THE ISOLATION SIGNAL WAS RESET, EVEN THOUGH THE EXHAUST FANS HAD TRIPPED. THIS PREVENTED STANDBY GAS FROM MAINTAINING RB VACUUM. ENGINEERING IS EVALUATING THE DAMPER LOGIC TO DETERMINE IF A CHANGE IS NEEDED. THE RESPONSE PROCEDURE HAS BEEN REVISED AND OPERATORS HAVE BEEN COUNSELED TO RESET THE FAN SWITCHES AFTER A TRIP. DURING AN ACCIDENT, THE ISOLATION DAMPERS WOULD NOT HAVE REOPENED IN THE PRESENCE OF LOW REACTOR WATER LEVEL OR HIGH DRYWELL PRESSURE SIGNALS, HIGH RADIATION IN THE SPENT FUEL POOL EXHAUST OR REACTOR BLDG EXHAUST PLENUM, OR MANUAL ISOLATION.

[ 88]        FERMI 2                                  DOCKET 50-341              LER 85-046  
RWCU ISOLATION ON SPURIOUS HIGH DIFFERENTIAL FLOW SIGNAL.  
EVENT DATE: 081385     REPORT DATE: 091185     NSSS: GE              TYPE: BWR

(NSIC 196235) AT 1102 HRS ON 8-13-85, THE RWC SYSTEM ISOLATED DUE TO A HIGH DIFFERENTIAL FLOW SIGNAL. THIS SIGNAL APPEARS TO HAVE RESULTED FROM THE EFFECTS OF THE CHANGING CONDENSER BACK PRESSURE ON THE FLOW ELEMENT MEASURING BLOWDOWN TO THE CONDENSER. THIS FLOW ELEMENT IS LOCATED DOWNSTREAM OF THE BLOWDOWN FLOW RESTRICTING ORIFICE AND THE BLOWDOWN PRESSURE CONTROL VALVE. THIS LOCATION APPEARS TO MAKE THE INSTRUMENT SENSITIVE TO SMALL CHANGES IN SYSTEM PRESSURE. ON THE MORNING OF 8-13-85, THE OPERATORS NOTED THAT THE DIFFERENTIAL FLOW INSTRUMENT WAS READING HIGHER THAN NORMAL. FROM THIS HIGHER STARTING POINT, A CHANGE IN CONDENSER BACKPRESSURE OF AS LITTLE AS 5 INCHES WATER COLUMN AT THE LOW PRESSURE TAP OF THE FLOW ELEMENT (FOR A DURATION GREATER THAN THE 45 SEC TIME DELAY) WOULD HAVE BEEN SUFFICIENT TO REACH THE TRIP SETPOINT AND CAUSE THE ISOLATION. ENGINEERING IS REEVALUATING THE BASIS FOR THE CALIBRATION OF THE DIFFERENTIAL

FLOW TRANSMITTER. TO REDUCE THE LIKELIHOOD OF SPURIOUS RWCU ISOLATION, RWCU FLOW IS BEING LIMITED TO 300 GPM MAX UNTIL THAT REEVALUATION IS COMPLETED.

[ 89]        FERMI 2                                DOCKET 50-341        LER 85-049  
TESTING ERROR CAUSES EMERGENCY DIESEL GENERATOR AUTO START.  
EVENT DATE: 081485    REPORT DATE: 091185    NSSS: GE        TYPE: BWR

(NSIC 196237) ON 8-14-85, DURING PREPARATIONS FOR SURVEILLANCE TESTING ON DIV II EMERGENCY DG'S 13 AND 14, AN ELECTRICAL TECHNICIAN INADVERTENTLY CAUSED EDG 13 TO START. THIS IS REPORTABLE AS AN ACTUATION OF AN ESP. WHILE CONNECTING A VISICORDER TO TERMINALS INSIDE THE LOCAL CONTROL PANEL, HE MOMENTARILY SHORTED 2 ADJACENT TERMINALS. BECAUSE THE EDG WAS IN STANDBY (REMOTE CONTROL), THE SHORT IN THE LOCAL PANEL CAUSED THE EDG START RELAY TO ENERGIZE AND SEAL-IN, STARTING THE EDG AT 1412 HRS. EDG 13 WAS MANUALLY SHUTDOWN AT 1428 HRS BY AN OPERATOR AT THE LOCAL CONTROL PANEL. THE EDG WAS THEN PLACED BACK IN STANDBY USING THE SYSTEM OPERATING PROCEDURE. TO PREVENT RECURRENCE, ALL EDG OPERATING PROCEDURES WHICH REQUIRE CONNECTING A VISICORDER TO THE EDG LOCAL CONTROL PANEL WILL INCLUDE A PRECAUTION REQUIRING THE EDG TO BE OUT-OF-SERVICE WHILE CONNECTING OR DISCONNECTING THE VISICORDER. A SEPARATE MAINTENANCE INSTRUCTION PROCEDURE (MI-E0044, 'VISICORDER CONNECTIONS TO THE EDG'S') HAS BEEN WRITTEN TO GIVE DETAILED INSTRUCTIONS ON CONNECTING THE VISICORDER TO THE EDG'S. ENGINEERING IS EVALUATING THE INSTALLATION OF PERMANENT PLUG-IN CONNECTORS FOR THE VISICORDER AT THE LOCAL CONTROL PANELS.

[ 90]        FERMI 2                                DOCKET 50-341        LER 85-050  
SPURIOUS ISOLATION OF REACTOR WATER CLEANUP SYSTEM.  
EVENT DATE: 081485    REPORT DATE: 091385    NSSS: GE        TYPE: BWR

(NSIC 196238) AT 0526 HRS ON 8-14-85, WITH THE PLANT IN OPERATIONAL CONDITION 2, THE RWCU SYSTEM PRIMARY CONTAINMENT ISOLATION VALVE G33F001 CLOSED FOR NO APPARENT REASON. TRYING TO MAINTAIN RWCU OPERATION, THE CONTROL ROOM OPERATOR RESET THE ISOLATION LOGIC AND REOPENED G33F001. THIS RESULTED IN A PRESSURE TRANSIENT, AND BOTH THE INBOARD AND OUTBOARD ISOLATION VALVES CLOSED, ISOLATING RWCU. THE SYSTEM WAS LEFT ISOLATED WHILE AN OPERATOR WAS DISPATCHED TO ENSURE THERE WERE NO LEAKS IN THE SYSTEM. CONTROL ROOM AND RELAY ROOM INSTRUMENTS WERE INDICATING SYSTEM FLOW AFTER SYSTEM ISOLATION. I&C PERSONNEL INSPECTING THE FLOW TRANSMITTER THAT PROVIDES SYSTEM FLOW INDICATION FOUND THE DIAPHRAGM INSIDE THE INSTRUMENT WAS DAMAGED BEYOND REPAIR. THIS APPARENTLY RESULTED FROM THE PRESSURE TRANSIENT ASSOCIATED WITH THE RAPID REOPENING OF THE INBOARD ISOLATION VALVE IN THE FIRST MINUTE OF THE EVENT. A TEMPORARY REPLACEMENT TRANSMITTER WAS INSTALLED AND TESTED AND THE RWCU WAS RETURNED TO SERVICE ON 8-18-85. THIS ISOLATION IS BELIEVED TO HAVE BEEN CAUSED BY A SPURIOUS ACTUATION OF TEMPERATURE SWITCHES IN THE RWCU STEAM LEAK DETECTION SYSTEM. ENGINEERING IS EVALUATING THE DESIGN OF THIS SYSTEM AND RECENT RWCU ISOLATIONS REPORTED IN LER'S 85-027, -028, -031, AND -040 TO PREPARE A DESIGN CHANGE TO REDUCE SPURIOUS ISOLATIONS.

[ 91]        FERMI 2                                DOCKET 50-341        LER 85-052  
MANUAL START OF STANDBY GAS TREATMENT SYSTEM TO MAINTAIN SECONDARY CONTAINMENT.  
EVENT DATE: 081885    REPORT DATE: 091785    NSSS: GE        TYPE: BWR

(NSIC 196240) ON 8-18-85, AT 2147 HRS, THE DIV II REACTOR BLDG PRESSURE HIGH/LOW ALARM WAS RECEIVED. OPERATIONS PERSONNEL INSPECTED ALL REACTOR BLDG DOORS AND PENETRATIONS AND FOUND NOTHING ABNORMAL. AT 0055 HRS, 8-19, DIV II OF STANDBY GAS TREATMENT WAS MANUALLY INITIATED TO RESTORE REACTOR BLDG PRESSURE TO LESS THAN -0.125 INCH WATER COLUMN REQUIRED BY TECH SPECS. REACTOR BLDG VACUUM WAS RESTORED WITHIN 30 SECS. DIV II SBTG WAS SHUT DOWN AT 0450, RESTARTED AT 0459, SHUT DOWN AT 0835, RESTARTED AT 1135, AND FINALLY SHUT DOWN AFTER RBHVAC WAS PESTARTED WITH NEW AIRFLOWS AT 1225. THERE WERE NO UNUSUAL RADIOACTIVE RELEASES

DURING THIS EVENT. DURING A PRIOR AIR BALANCE, THE REACTOR BLDG SUPPLY FLOW WAS SET SLIGHTLY ABOVE DESIGN, REQUIRING THE EXHAUST MODULATING DAMPERS TO BE FULL OPEN. THIS PROVIDED NO MARGIN FOR DEGRADATION OF THE SECONDARY CONTAINMENT BOUNDARY. FOLLOWING THIS EVENT, PLANT STAFF REDUCED SUPPLY AIR FLOW ABOUT 5%, TO SLIGHTLY BELOW THE ORIGINAL DESIGN VALUE, AT 1225 HRS ON 8-19. THE EXHAUST MODULATING DAMPERS BEGAN TO CONTROL AS DESIGNED AND THE SYSTEM WAS AGAIN ABLE TO MAINTAIN SECONDARY CONTAINMENT PRESSURE BELOW -0.125 INCHES WATER COLUMN.

[ 92]        PERMI 2                                  DOCKET 50-341              LER 85-051  
SPURIOUS ACTUATION OF CHLORINE DETECTOR.  
EVENT DATE: 082085     REPORT DATE: 091985     NSSS: GE                      TYPE: BWR

(NSIC 196239) AT 1248 HRS ON 8-20, THE CONTROL CENTER HVAC (CC-HVAC) SHIFTED TO THE CHLORINE MODE, AN ESF ACTUATION. INVESTIGATION REVEALED THAT RADIO FREQUENCY INTERFERENCE FROM A HAND-HELD RADIO USED DURING A SURVEILLANCE TEST NEAR ONE OF THE CHLORINE DETECTORS CAUSED THE DETECTOR TO INITIATE THE SHIFT IN CC-HVAC OPERATION. THE SURVEILLANCE PERSONNEL HAD ADHERED TO THE PLANT ORDER PROHIBITING RADIO TRANSMISSIONS WITHIN 6 FEET OF THE CHLORINE DETECTORS. HOWEVER, TESTS PERFORMED AFTER THIS EVENT INDICATED THAT THE DETECTORS COULD BE TRIPPED BY RADIO FREQUENCY INTERFERENCE FROM A RADIO AS FAR AWAY AS 8 FEET. TO PREVENT RECURRENCE, THE PLANT ORDER WAS REVISED TO PROHIBIT RADIO TRANSMISSIONS WITHIN 10 FEET OF THE CHLORINE DETECTORS. THE SURVEILLANCE PROCEDURE USED ON 8-20 AND THE PROCEDURES FOR CALIBRATION AND FUNCTIONAL TESTING OF THE CHLORINE DETECTORS NOW INCLUDE A SPECIAL PRECAUTION ABOUT THE SPECIAL SENSITIVITY OF THE CHLORINE DETECTORS. THESE PROCEDURE CHANGES AND THIS EVENT WILL BE DISCUSSED WITH THE I&C TECHNICIANS AND OPERATIONS PERSONNEL.

[ 93]      FERMI 2      DOCKET 50-341      LER 85-053  
LOSS OF POWER TO MAIN STEAM LINE AND FUEL POOL VENT RADIATION MONITORS.  
EVENT DATE: 082485      REPORT DATE: 092085      NSSS: GE      TYPE: BWR

(INSC 196289) ON 8-24-85, AT 0548 HRS, ESF'S WERE ACTUATED WHEN AN INSTRUMENT REPAIRMAN INADVERTENTLY SHORTED A 120V AC POWER SUPPLY. THE PLANT WAS AT ZERO POWER IN OPERATIONAL CONDITION 3 AT THE TIME. THE REPAIRMAN WAS REPLACING THE COVER ON AN INSTRUMENT DRAWER AFTER COMPLETING A SURVEILLANCE ON THE MAIN STEAM LINE RADIATION MONITOR, DIV II, CHANNEL B2/D. THE REPAIRMAN'S SCREWDRIVER SLIPPED WHEN HE WAS INSTALLING THE BOTTOM COVER ON THE DRAWER. THE SCREWDRIVER ENTERED THE DRAWER THROUGH THE PERFORATED COVER, SHORTED THE 120V AC INSTRUMENT POWER FILTERS, BLOWING FUSE D11A-F9B AND INTERRUPTING POWER TO MAIN STEAM LINE RADIATION MONITOR D11-K603D AND FUEL POOL RADIATION MONITOR D11-K609D. THIS LED TO A SHUTDOWN OF REACTOR BLDG HVAC, ACTUATION OF STANDBY GAS TREATMENT DIV II, SHIFT OF CONTROL CENTER HVAC TO RECIRCULATION MODE, A HALF SCRAM, AND HALF-TRIP OF THE MSIV'S. THE FUSE WAS REPLACED AND ALL SYSTEMS RETURNED TO NORMAL BY 0638. ALL SYSTEMS RESPONDED AS DESIGNED. THE REPAIRMAN CHOSE THE WRONG SIZE SCREWDRIVER. TO PREVENT RECURRENCE, THE REPAIRMEN HAVE BEEN INSTRUCTED ABOUT THE PROPER SIZE SCREWDRIVER TO USE; THE EVENT REPORT HAS BEEN MADE REQUIRED READING FOR ALL I&C PERSONNEL.

[ 94]          FERMI 2                                  DOCKET 50-341                  LER 85-054  
HPCI ISOLATION DUE TO SURVEILLANCE TESTING ERROR.  
EVENT DATE: 082785      REPORT DATE: 092485      NSSS: GE                  TYPE: BWR

(NSIC 196353) ON 8-27-85 WITH THE PLANT IN OPERATIONAL CONDITION 2, AN ISOLATION OF THE HPCI SYSTEM OCCURRED AT 0055 HRS DURING SURVEILLANCE TESTING OF HPCI & RCIC ROOM AREA TEMPERATURE CHANNEL B. THE SURVEILLANCE PROCEDURE REQUIRES LIFTING THE THERMOCOUPLE INPUT LEADS FROM RCIC SWITCH MODULE E51-N602B. TEST PERSONNEL INCORRECTLY SELECTED MODULE E41-N602B (HPCI) INSTEAD. WHEN THEY LIFTED THE THERMOCOUPLE LEADS ON MODULE E41-N602B, THE HPCI OUTBOARD VALVE ISOLATION

(NSIC 196354) ON 8-28-85, WITH THE PLANT IN OPERATIONAL CONDITION 2, THE HPCI SYSTEM ISOLATION LOGIC TRAIN 'A' TRIPPED AT 2257 HRS. THE HPCI STEAM SUPPLY INBOARD ISOLATION VALVE E41-P002 CLOSED ON RECEIPT OF THE ISOLATION SIGNAL. THE HPCI PUMP SUCTION INBOARD ISOLATION VALVE E41-P042 RECEIVED A CLOSE SIGNAL BUT WAS ALREADY CLOSED. ACTUATION OF THE HPCI PRIMARY CONTAINMENT ISOLATION LOGIC IS A REPORTABLE ESF ACTUATION. TROUBLESHOOTING REVEALED THAT HPCI DIFFERENTIAL PRESSURE TRANSMITTER E41-N057A WAS PROVIDING AN INCORRECT (LOW) OUTPUT CURRENT. THE INCORRECT OUTPUT WAS CAUSED BY A POOR CONNECTION BETWEEN THE AMPLIFIER CARD AND THE PINS INTO WHICH IT PLUGS. IT IS BELIEVED THAT THE BOARD MAY HAVE BEEN INSTALLED INCOMPLETELY SEATED OR MAY HAVE WORKED LOOSE SINCE INITIAL INSTALLATION. IMMEDIATE CORRECTIVE ACTION WAS TO RESEAT THE AMPLIFIER BOARD SECURELY. THIS TYPE OF PROBLEM HAS NOT BEEN FOUND ON OTHER INSTRUMENTS TO DATE. THIS OCCURRENCE IS CONSIDERED ISOLATED AND NO FURTHER CORRECTIVE ACTION IS PLANNED.

(INSIC 196355) ON 8-29-85, A 1 HR ROVING FIRE WATCH WAS MISSED DURING A SITE RADIOLOGICAL EMERGENCY RESPONSE PREPAREDNESS (RERP) DRILL. THE DRILL STARTED AT 0730 ON 8-29-85. AS ORDERED, THE FIRE WATCH LEFT THE PLANT AND WENT TO HIS RERP ASSEMBLY AREA, ABOUT 0900. AT 1030 THE NUCLEAR SHIFT SUPERVISOR (NSS) WAS NOTIFIED THAT THE FIRE WATCH WAS NOT IN HIS ASSIGNED LOCATION. THE PATROL NUCLEAR SUPERVISING OPERATOR (NSO) PERFORMED THE FIRE WATCH, AND NOTED NO CONDITIONS ADVERSE TO SAFETY. ONLY ONE 1-HR ROUND WAS NOT PERFORMED. THE PLANT WAS IN OPERATIONAL CONDITION 2 THROUGHOUT THIS EVENT. THE FIRE WATCH WAS REQUIRED BY TECH SPEC 3.7.8 BECAUSE FIRE BARRIERS HAD BEEN BREACHED FOR WORK IN PROGRESS AND BY DETROIT EDISON'S COMMITMENT FOR COMPENSATORY FIRE PROTECTION MEASURES. OTHER ADMINISTRATIVE CONTROLS, FIRE DETECTION AND PROTECTION SYSTEMS, AND THE FIRE BRIGADE REMAINED IN EFFECT. THUS, THE CONSEQUENCES OF THE MISSED FIRE WATCH WERE MINIMAL. TO PREVENT RECURRENCE, OPERATIONS HAS REVIEWED THE DUTIES OF THE FIRE WATCH WITH ALL INDIVIDUALS ASSIGNED THIS DUTY. CRITICAL OPERATIONS PERSONNEL, EXEMPT FROM EVACUATION DURING DRILLS, ARE NOW IDENTIFIED BY WHITE ARM BANDS AND ACCOUNTED FOR SEPARATELY.

(NSIC 196356) ON 8-31-85, THE DIV I EMERGENCY EQUIPMENT COOLING WATER (EECW) SYSTEM AND THE ASSOCIATED EMERGENCY EQUIPMENT SERVICE WATER (EESW) SYSTEM, BOTH ESP'S, AUTOMATICALLY STARTED. THIS WAS IN RESPONSE TO A LOW DIFFERENTIAL PRESSURE CONDITION ACROSS THE REACTOR BLDG CLOSED COOLING WATER (RBCCW) SYSTEM SUPPLY AND RETURN HEADERS. THE RBCCW IS THE NORMAL COOLING WATER SUPPLY FOR THE EECW SYSTEM LOADS. WHEN THIS OCCURRED THE PLANT WAS IN OPERATIONAL CONDITION 2

(STARTUP). AN INVESTIGATION OF THIS EVENT WAS CONDUCTED AND NO CAUSE HAS BEEN DETERMINED. THE RBCCW AND EECW SYSTEMS RESPONDED AS DESIGNED AND THERE IS NO SAFETY SIGNIFICANCE ATTACHED TO THIS EVENT. SIMILAR EVENTS: 341/85-017, 341/85-023, 341/85-026, AND 341/85-042.

[ 98] FERM I 2 DOCKET 50-341 LER 85-059  
MAINTENANCE ERROR CAUSES MSIV CLOSURE AND REACTOR SCRAM.  
EVENT DATE: 090385 REPORT DATE: 100385 NSSS: GE TYPE: BWR

(NSIC 196404) AT 1534 HRS ON 9-3-85 WHILE IN OPERATIONAL CONDITION 2 A GROUP 1 ISOLATION CLOSURE OF ALL MSIV'S PRODUCED AN INCREASE IN REACTOR PRESSURE WHICH CAUSED A REACTOR HIGH PRESSURE TRIP. THE MAXIMUM PRESSURE REACHED WAS APPROX 1065 PSIG. THE GROUP 1 ISOLATION OCCURRED WHILE ATTEMPTING TO REFILL A CONDENSER PRESSURE SENSING LINE WITH WATER. THE CONDENSER HIGH PRESSURE SETPOINT WAS REACHED WHICH CAUSED A HALF ISOLATION SIGNAL. SINCE A HALF ISOLATION SIGNAL WAS ALREADY PRESENT FROM AN EARLIER INSTRUMENT FAILURE OF THE MAIN STEAMLINE FLOW INDICATION, A FULL ISOLATION OCCURRED. THE CONDENSER PRESSURE SENSING LINE WAS DRAINED AND THE INSTRUMENTATION WAS RECALIBRATED WITH THE LINE EMPTY. THE SENSING LINES WILL BE MONITORED TO DETERMINE IF THEY WILL FILL WITH CONDENSATION. IF SO, ADDITIONAL CORRECTIVE ACTION MAY BE NECESSARY.

[ 99]            FITZPATRICK                                 DOCKET 50-333                                 LER 85-022  
MSIV SOLENOID MIS-WIRING CAUSES REACTOR SCRAM.  
EVENT DATE: 082085      REPORT DATE: 091085      NSSS: GE                                 TYPE: BWR

(NSIC 196233) WHILE PERFORMING THE MAIN STEAM LINE HIGH RADIATION FUNCTIONAL TEST DURING NORMAL OPERATION AT FULL POWER, THE 'B' MSIV CLOSED, RESULTING IN A PRESSURE SPIKE IN THE REACTOR VESSEL TO ABOUT 1020 TO 1030 PSIG. THE PRESSURE SPIKE CAUSED A REACTOR SCRAM ON HIGH PRESSURE (SETPOINT LESS THAN 1045 PSIG). SUBSEQUENT INVESTIGATION REVEALED THAT THE INADVERTENT VALVE CLOSURE WAS DUE TO AN ERROR IN THE WIRING OF THE 'B' MSIV SOLENOIDS. THE MSIV'S ARE PNEUMATICALLY OPERATED GLOBE VALVES. IN THE SUPPLY LINE TO EACH MSIV ARE TWO 3-WAY SOLENOIDS. ONE SOLENOID IS AN AC COIL AND THE OTHER IS A DC COIL. FOLLOWING MAINTENANCE PERSONNEL MISINTERPRETED THE WORK LOG AND WIRED THE AC SOLENOID TO THE DC CIRCUIT AND THE DC SOLENOID TO THE AC CIRCUIT. THE SOLENOIDS WERE REPLACED AND REWIRED CORRECTLY. ADMINISTRATIVE CONTROLS HAVE BEEN INCORPORATED TO PREVENT A RECURRENCE OF THE INCIDENT.

[100] FITZPATRICK DOCKET 50-333 LER 85-023  
TESTING ERROR RESULTS IN INADVERTENT START OF EMERGENCY DIESEL GENERATORS.  
EVENT DATE: 090585 REPORT DATE: 091985 NSSS: GE TYPE: BWR

(NSIC 196234) DURING THE PERFORMANCE OF 'LPCI SUBSYSTEM LOGIC' SURVEILLANCE TESTING, THE A & C EMERGENCY DG'S WERE INADVERTENTLY STARTED AS A RESULT OF OPERATOR ERROR. THE OPERATOR, WHILE CONDUCTING THE SURVEILLANCE TESTING, WAS READING AHEAD IN THE PROCEDURE AND IN ANTICIPATION OF THE NEXT STEP OCCURRING, REMOVED THE TEST JACK WITH THE INITIATION SIGNAL PRESENT. THIS RESULTED IN SATISFYING THE START LOGIC FOR THE A & C EMERGENCY DG'S. THE NEXT STEP IN THE PROCEDURE REQUIRED THAT THE INITIATION SIGNAL BE RESET PRIOR TO REMOVING THE TEST JACK. THE SIGNAL WAS IMMEDIATELY RESET AND THE DIESELS WERE SUBSEQUENTLY SECURED. THE OPERATORS INVOLVED WERE COUNSELLED ON THE NECESSITY FOR COMPLETING A PROCEDURAL STEP PRIOR TO PROCEEDING TO THE NEXT STEP.

[101] FT. CALHOUN 1 DOCKET 50-285 LER 85-006  
FAILURE OF MAIN STEAM SAFETY VALVES TO LIFT WITHIN SETPOINT TOLERANCE.  
EVENT DATE: 092885 REPORT DATE: 102885 NSSS: CE TYPE: PWR  
VENDOR: DRESSER INDUSTRIAL VALVE & INST DIV

(NSIC 196387) WHILE PERFORMING SURVEILLANCE TEST ST-MSSV-1, MAIN STEAM SAFETY VALVE TEST, DURING A SCHEDULED SHUTDOWN OF THE UNIT FOR REFUELING, IT WAS DISCOVERED THAT 3 OF THE 10 MAIN STEAM SAFETY VALVES FAILED TO LIFT WITHIN PLUS OR MINUS 1% OF THEIR NAMEPLATE SETPOINT VALUES. THIS EXCEEDS THE MINIMUM OPERABILITY REQUIREMENTS OF TECH SPEC 2.1.6(3) WHICH REQUIRES 8 OF THE 10 STEAM SAFETY VALVES TO BE OPERABLE WITH THEIR LIFT SETTINGS BETWEEN 1000 PSIA AND 1050 PSIA WITH A TOLERANCE OF PLUS OR MINUS 1% OF THE NOMINAL NAMEPLATE SETPOINT VALUES WHENEVER THE REACTOR IS IN POWER OPERATION. THE CAUSE OF THE OUT-OF-SPECIFICATION CONDITION IS ATTRIBUTED TO NORMAL DRIFT OF THE SAFETY VALVE LIFT SETTING OVER AN OPERATING CYCLE. SIMILAR EVENTS: 285/84-002, 285/82-020, 285/77-024 AND 285/76-019.

[102] FT. CALHOUN 1 DOCKET 50-285 LER 85-007  
UNPLANNED RELEASE FROM CONTAINMENT CAUSES VIAS ACTUATION.  
EVENT DATE: 100185 REPORT DATE: 103085 NSSS: CE TYPE: PWR

(NSIC 196437) WHILE IN THE REFUELING SHUTDOWN CONDITION, AN UNPLANNED ACTUATION OF THE VENTILATION ISOLATION ACTUATION SYSTEM (VIAS) OCCURRED AT 1758 HRS ON 10-1-85. THE ACTUATION OF THE VIAS, AN ESF WAS INITIATED BY CONTAINMENT STACK RADIATION GAS MONITOR RM-062. FOLLOWING STANDARD PROCEDURES IN PREPARATION FOR A CONTAINMENT PURGE, THE PURGE INLET AND OUTLET VALVES WERE OPENED. THE NEXT STEP IS TO ENSURE VALVE CLOSURE ON VIAS BY GENERATING AN ARTIFICIAL VIAS; HOWEVER, BEFORE THE ARTIFICIAL SIGNAL COULD BE GENERATED, AN ACTUAL VIAS OCCURRED. PRIOR TO OPENING THE PURGE VALVES, BASED UPON NORMAL CONTAINMENT PRESSURE INDICATION, IT WAS BELIEVED THAT NO DIFFERENTIAL PRESSURE EXISTED BETWEEN THE CONTAINMENT BLDG AND THE ATMOSPHERE; BUT SUBSEQUENT OBSERVATION OF THE POST-ACCIDENT CONTAINMENT PRESSURE RECORDER INDICATED A PRESSURE OF APPROX 1 PSIG IN CONTAINMENT. THIS DIFFERENTIAL PRESSURE CAUSED A FLOW OF AIR OUT OF CONTAINMENT AND UP THE PLANT STACK. THE VIAS WAS RESET AT 1833 HRS ON THE SAME DAY. ALL ESF'S INVOLVED IN THIS INCIDENT FUNCTIONED AS DESIGNED. QUANTITATIVE ANALYSES OF GRAB AIR SAMPLES AND VENTILATION STACK PROCESS MONITOR READINGS INDICATED THAT NO TECH SPEC OR 10 CFR 20 LIMITS WERE EXCEEDED. THE PROCEDURES USED FOR CONTAINMENT PURGES WILL BE REVIEWED IN LIGHT OF THIS INCIDENT AND WILL BE REVISED AS NECESSARY.

[103] GRAND GULF 1 DOCKET 50-416 LER 85-032  
LIQUID EFFLUENT FLOW RATE ESTIMATE PERFORMED LATE TWICE.  
EVENT DATE: 121884 REPORT DATE: 092685 NSSS: GE TYPE: BWR

(NSIC 196364) ON 8-29-85 FOLLOWING A QA AUDIT, PLANT STAFF DETERMINED THAT A REPORTABLE CONDITION HAD OCCURRED ON 12-1-84, AND ON 12-4-84, WHEN LIQUID EFFLUENT RELEASE FLOW RATE ESTIMATES WERE NOT PERFORMED WITH THE 4 HR FREQUENCY REQUIRED BY TECH SPEC 3.3.7.11 ACTION 111. FROM 11-30-84 TO 12-6-84, THE CIRCULATING WATER SYSTEM, THE NORMAL DILUTION SOURCE FOR RADWASTE LIQUID EFFLUENT, WAS OUT OF SERVICE. WHENEVER THE CIRCULATING WATER BLOWDOWN OR DISCHARGE CANAL MONITORS ARE OUT OF SERVICE, DILUTION FLOW IS OBTAINED FROM SOURCES WITHOUT FLOW RATE MEASURING DEVICES. TECH SPEC 3.3.7.11 REQUIRES THE FLOW RATE TO BE ESTIMATED AT LEAST ONCE PER 4 HRS DURING ACTUAL RELEASE WHEN THE REQUIRED FLOW RATE MONITORS ARE NOT OPERABLE. DURING THE RELEASES ON 12-1 AND 12-4-84, FLOW RATES WERE ESTIMATED APPROX 30 MINS LATER THAN ALLOWED. PROCEDURAL CONTROLS AT THE TIME WERE INADEQUATE TO ENSURE COMPLIANCE WITH THE ACTION STATEMENT. THE RADIOACTIVE DISCHARGE CONTROLS PROCEDURE WAS REVISED TO REQUIRE THAT COMPLIANCE WITH THIS ACTION BE DOCUMENTED ON THE DISCHARGE PERMIT FORM.

[104] GRAND GULF 1 DOCKET 50-416 LER 85-029  
TWO UNSEALED FIRE BARRIERS.  
EVENT DATE: 072485 REPORT DATE: 082385 NSSS: GE TYPE: BWR

(NSIC 196008) WHILE PERFORMING AN UNRELATED WALKDOWN IN THE CONTROL BLDG, PENETRATIONS CE359G AND CE361G WERE DISCOVERED OPEN. THESE PENETRATIONS FUNCTION AS FIRE BARRIERS AND SHOULD HAVE BEEN SEALED. PENETRATION CE359G WAS LAST DOCUMENTED OPENED AND CLOSED IN JUNE 1983. CE361G WAS LAST DOCUMENTED OPENED AND CLOSED IN 2-84. UPON DISCOVERY FIRE WATCHES WERE ESTABLISHED IN ACCORDANCE WITH TECH SPEC 3.7.7. THE SEALS WILL BE RESTORED ON MWO'S F54706 AND F54707. THE CAUSE OF THE OPEN PENETRATIONS COULD NOT BE DETERMINED.

[105] GRAND GULF 1 DOCKET 50-416 LER 85-031  
BATTERY NOT DECLARED INOPERABLE AFTER UNSATISFACTORY CELL TEST.  
EVENT DATE: 081685 REPORT DATE: 091685 NSSS: GE TYPE: BWR  
VENDOR: ELTRA CORPORATION

(NSIC 196302) ON AUGUST 13, 1985, DURING A QUARTERLY BATTERY CELL CHECK SURVEILLANCE, A CELL IN THE DIVISION 1 BATTERY BANK WAS RECORDED AS HAVING A SPECIFIC GRAVITY OF 1.196. IT WAS NOT DETERMINED UNTIL AFTER THE COMPLETION OF THE SURVEILLANCE ON AUGUST 16, 1985 THAT THIS VALUE, WHEN COMPARED TO THE AVERAGE OF ALL THE CELLS, MADE THE BATTERY INOPERABLE WHICH REQUIRED ENTRANCE INTO A TWO HOUR LCO CONDITION. THE BATTERY BANK IS A BACKUP POWER SUPPLY TO THE DIVISION 1 ESF BUS. THE FAILURE TO INITIATE THE LCO ACTIONS WITHIN THE TIME LIMIT WAS DUE TO THE TECHNICIAN NOT RECOGNIZING THAT THE INDIVIDUAL CELL SPECIFIC GRAVITY WAS BELOW THE ALLOWABLE VALUE. ADDITIONALLY THE PROCEDURAL GUIDANCE WAS UNCLEAR FOR DECLARING THE BATTERY INOPERABLE WHEN BELOW THE ALLOWABLE VALUE, WHICH COMPARES AVERAGED CELL READINGS TO INDIVIDUAL CELL READINGS. THE ERROR WAS DISCOVERED DURING THE MAINTENANCE SUPERVISOR'S REVIEW OF THE SURVEILLANCE PACKAGE ON AUGUST 16, 1985. THE TECHNICIAN WAS COUNSELED BY THE ELECTRICAL MAINTENANCE SUPERINTENDENT. THE SURVEILLANCE PROCEDURE IS BEING REVISED TO CLARIFY WHEN THE BATTERY IS TO BE CONSIDERED INOPERABLE. THE CELL WAS REPLACED. THE BATTERY WAS RETESTED AND FOUND ACCEPTABLE.

[106] GRAND GULF 1 DOCKET 50-416 LER 85-033  
REVIEW IDENTIFIED UNIT 2 STANDBY SERVICE WATER COMPONENTS REQUIRED FOR UNIT 1 OPERABILITY.  
EVENT DATE: 083085 REPORT DATE: 093085 NSSS: GE TYPE: BWR  
OTHER UNITS INVOLVED: GRAND GULF 2 (BWR)

(NSIC 196409) ON AUGUST 30, 1985, IT WAS DETERMINED THAT PORTIONS OF THE UNIT 2 STANDBY SERVICE WATER (SSW) SYSTEM REQUIRED TO SUPPORT THE SEISMIC QUALIFICATION OF THE UNIT 1 SSW SYSTEM WERE NOT UNDER THE OPERATIONAL CONTROL OF THE PLANT (I.E., HAD NOT BEEN TURNED OVER TO MP&L). A REVIEW OF THE SSW SYSTEMS' P&ID'S, STRESS CALCULATIONS AND PIPING DRAWINGS IDENTIFIED FIVE UNIT 1 STRESS PROBLEMS WHERE UNIT 2 PIPING ELEMENTS WERE INCLUDED WITH RESPECT TO TREATMENT OF THE SEISMIC ANALYSIS BOUNDARY ANCHOR POINTS. NUCLEAR PLANT ENGINEERING HAS DETERMINED THAT UNIT 2 EQUIPMENT AND PIPING IN THE SSW BASIN, AS INSTALLED, WAS COMPATIBLE WITH UNIT 1 SSW DESIGN REQUIREMENTS. FURTHERMORE, THE UNIT 2 SSW PIPING REQUIRED TO SUPPORT UNIT 1 OPERATION WAS NOT IN AN UNANALYZED CONDITION THAT WOULD HAVE SIGNIFICANTLY COMPROMISED PLANT SAFETY.

[107] GRAND GULF 1 DOCKET 50-416 LER 85-034  
STANDBY GAS TREATMENT FILTER EFFICIENCY BELOW TECHNICAL SPECIFICATION LIMITS.  
EVENT DATE: 090685 REPORT DATE: 100485 NSSS: GE TYPE: BWR

(NSIC 196365) ON 8-19-85, DURING PERFORMANCE OF A SURVEILLANCE, A TEST CANISTER IN STANDBY GAS TREATMENT FILTER TRAIN 'B' WAS FOUND TO CONTAIN NO CHARCOAL. A TEST WAS PERFORMED ON 9-6-85, TO DETERMINE WHAT EFFECTS THIS CONDITION HAD ON THE FILTER TRAIN. THIS TEST SHOWED THAT THE EFFICIENCY OF FILTER TRAIN 'B' WAS 99.26% WHICH IS BELOW THE TECH SPEC ACCEPTANCE VALUE OF 99.95%. THE EMPTY TEST CANISTER WAS APPARENTLY INSTALLED IN 4-84, DURING THE COMPLETION OF CHARCOAL BED

REPLACEMENT ACTIVITIES. THE MAINTENANCE INSTRUCTION WHICH PROVIDES DETAILS FOR THE REMOVAL AND REPLACEMENT OF CHARCOAL IN THE FILTER ASSEMBLY WILL BE REVISED TO INCLUDE STEPS FOR ENSURING THAT SAMPLE CANISTERS ARE FILLED AND REINSTALLED PRIOR TO RESTORING THE SYSTEM TO SERVICE FOLLOWING CHARCOAL REPLACEMENT.

[108] HATCH 1 DOCKET 50-321 LER 84-005 REV 1  
 UPDATE ON CONTROL ROOM PANEL CABLES IMPROPERLY TERMINATED AND SEPARATED CABLE SEPARATION, UNLANDED CABLES, AND OPEN LINKS.  
 EVENT DATE: 072084 REPORT DATE: 011585 NSSS: GE TYPE: BWR  
 OTHER UNITS INVOLVED: HATCH 2 (BWR)

(NSIC 196316) ON 6-29-84, FOLLOWING A CONCERN THAT MAINTENANCE PERSONNEL WORKING IN UNIT 2 CONTROL ROOM PANELS HAD BEEN SHOCKED BY CABLE ENDS WHICH WERE NOT TERMINATED OR PROPERLY IDENTIFIED, A PRELIMINARY REVIEW BY PERSONNEL INDICATED THAT NUMEROUS CABLE LEADS WERE LIFTED AND NOT PROPERLY TAGGED IN THE UNIT 2 CONTROL ROOM. ALSO, IMPROPER CABLE SEPARATION PROBLEMS WERE NOTED. FROM THE CONCERN ON 6-29-84 THE INITIAL DEFICIENCY ON THIS EVENT WAS WRITTEN ON 7-2-84 AND DID NOT INDICATE A REPORTABLE OCCURRENCE, HOWEVER, THE DEFICIENCY WRITTEN AFTER FURTHER INVESTIGATION ON 7-20-84 DID INDICATE A REPORTABLE OCCURRENCE. THE CAUSE OF THIS EVENT WAS PERSONNEL ERROR AND INADEQUATE ADMINISTRATIVE CONTROLS (I.E., INADEQUATE SPARED WIRE INSTRUCTIONS AND UNCLEAR DESIGN CHANGE REQUEST INSTRUCTIONS). WORK WAS STOPPED IN UNIT 1 AND 2 CONTROL ROOM PANELS TO REESTABLISH AND UPGRADE ADMINISTRATIVE CONTROLS. PROCEDURES WERE REVIEWED TO MAKE NECESSARY REVS. PERSONNEL WERE RETRAINED ON PROCEDURE REVS. ALSO, PRIOR TO WORKING IN CONTROL ROOM PANELS, PLANT PERSONNEL REVIEW DCR PACKAGES TO DETERMINE IF CLARIFICATION ON INSTALLATION INSTRUCTIONS FOR ROUTING CABLES, TERMINATION, AND SEPARATION REQUIREMENTS IS NECESSARY.

[109] HATCH 1 DOCKET 50-321 LER 84-014 REV 1  
 UPDATE ON STRESS CORROSION CRACKING OF RECIRCULATION AND RHR PIPING.  
 EVENT DATE: 101184 REPORT DATE: 121884 NSSS: GE TYPE: BWR  
 VENDOR: ASSOCIATED PIPING & ENGINEERING CORP.  
 NATIONAL ANNEALING BOX COMPANY

(NSIC 196318) DURING THE MONTHS OF OCT AND NOV, WITH THE REACTOR MODE SWITCH IN THE REFUEL POSITION AND THE UNIT IN COLD SHUTDOWN FOR REFUELING, AUGMENTED INSERVICE INSPECTIONS WERE PERFORMED. 15 WELDS WITH REJECTABLE INDICATIONS WERE REPORTED ON 10-11-84, SUBSEQUENTLY 7 MORE WELDS WITH REJECTABLE INDICATIONS WERE IDENTIFIED FOR A TOTAL OF 22 WELDS, 1 RHR WELD AND 21 RECIRCULATION WELDS. THE UNIT WAS PLACED IN AN LCO PER TECH SPECS SECTION 3.6.K. THESE INDICATIONS WERE IDENTIFIED BY THE ULTRASONIC TESTING METHOD. 5 WELDS WITH CRACK LIKE INDICATIONS IN THE RECIRCULATION SYSTEM (1B31-1RC-28A-6, 1B31-1RC-28B-16, 1B31-1RC-22AM-1BC-1, 1B31-1RC-22BM-1BC-1, AND 1B31-RC-28A-2) WERE FOUND TO BE ACCEPTABLE BY ANALYSIS AND THEREFORE WILL NOT BE REPAIRED. THE REMAINING 17 WELDS WILL BE REPAIRED BY THE WELD OVERLAY METHOD. THE CAUSE OF 21 OF THESE 22 EVENTS WAS DUE TO INTER-GRANULAR STRESS CORROSION CRACKING (IGSCC), WHICH IS A GENERIC PROBLEM INHERENT IN HIGH CARBON AUSTENITIC STAINLESS STEELS IN THE BWR REACTOR COOLANT SYSTEM PRESSURE BOUNDARY. NOTE: WELD 1B31-1RC-28A-2 HAS A CIRCUMFERENTIAL INDICATION THAT APPEARS TO BE A FABRICATION-TYPE FLAW AND NOT IGSCC. AS STATED IN THE ABOVE PARAGRAPH, THE 17 WELDS WILL BE REPAIRED BY THE WELD OVERLAY METHOD.

[110] HATCH 1 DOCKET 50-321 LER 84-019 REV 1  
 UPDATE ON IMPROPERLY INSTALLED SEISMIC RESTRAINT OUTER CLAMP FOR RHR AND PLANT SERVICE WATER PUMPS.  
 EVENT DATE: 101184 REPORT DATE: 011185 NSSS: GE TYPE: BWR  
 VENDOR: GEORGIA POWER COMPANY

(NSIC 196319) ON 10-11-84, WITH THE REACTOR MODE SWITCH IN THE REFUEL POSITION AND THE UNIT SHUTDOWN FOR REFUELING, MAINTENANCE PERSONNEL DETERMINED THAT THE OUTER CLAMP ON THE SEISMIC RESTRAINT FOR THE 'B' RHR SERVICE WATER PUMP (E11-C001B) WAS MISSING; THE CLAMP WAS LATER FOUND IN THE INTAKE SUMP. THIS EVENT WAS DISCOVERED WHILE PERFORMING PREVENTIVE MAINTENANCE PER THE 'RHR SERVICE WATER SYSTEM MAINTENANCE' PROCEDURE (HNP-1-6030). THE ACTUAL OR POTENTIAL SAFETY CONSEQUENCES OR IMPLICATIONS THAT RESULTED FROM THIS EVENT ARE THAT THE 'B' RHR SERVICE WATER PUMP WOULD HAVE BEEN INOPERABLE IN A SEISMIC EVENT. THIS IS A NON-REPETITIVE EVENT. THE EXACT TIME OF THIS EVENT IS UNKNOWN. THE LAST TIME THE 'B' RHR SERVICE WATER PUMP WAS REMOVED AND RE-INSTALLED WAS 9-18-83. THE CAUSE OF THE OUTER CLAMP NOT BEING IN PLACE IS INADEQUATE CONSTRUCTION/INSTALLATION. THE OUTER CLAMP WAS REPLACED DURING PUMP REASSEMBLY.

[111] HATCH 1 DOCKET 50-321 LER 84-012 REV 1  
 UPDATE ON SPURIOUS REACTOR PROTECTION SYSTEM LOGIC ACTUATION.  
 EVENT DATE: 111484 REPORT DATE: 010485 NSSS: GE TYPE: BWR

(NSIC 196317) ON 11-14-84 AT 0810 CST, AND ON 11-20-84 AT 0747 CST, RPS LOGIC ACTUATIONS OCCURRED FOR NO APPARENT REASON. ON 12-6-84, AT 1730 CST ANOTHER RPS LOGIC ACTUATION OCCURRED. DURING THE PERFORMANCE OF THE 'IDENTIFICATION, CONTROL AND RESOLUTION OF PROBLEMS WITHIN CLASS 1E ELECTRICAL PANEL' PROCEDURE (HNP-1-10280) IN PANELS 1H11-P609 AND 1H11-P610 (I.E., RPS LOGIC ACTUATION PANELS) A FULL RPS LOGIC ACTUATION OCCURRED. FIRST A 1/2 SCRAM OCCURRED IN 'B' CHANNEL WHEN A FUSE WAS ACCIDENTLY BLOWN IN 1H11-P610 AND THEN A FULL RPS LOGIC ACTUATION OCCURRED WHEN PERSONNEL LIFTED A WIRE IN 1H11-P609. THE BLOWN FUSE IN 1H11-P610 WAS REPLACED AND THE LIFTED WIRE WAS REPLACED.

[112] HATCH 1 DOCKET 50-321 LER 84-025 REV 1  
 UPDATE ON THROUGH WALL INDICATION ON NITROGEN INERTING PIPE WELD.  
 EVENT DATE: 121584 REPORT DATE: 071885 NSSS: GE TYPE: BWR

(NSIC 196196) ON 12-15-84 WITH THE REACTOR MODE SWITCH IN THE REFUEL POSITION AND THE UNIT SHUTDOWN FOR REFUELING, INSERVICE INSPECTION TESTS (ISI) WERE BEING PERFORMED ON SELECTED PIPE WELDS USING THE MAGNETIC PARTICLE INSPECTION METHOD. DURING THIS TESTING, A LINEAR THROUGH WALL CRACK APPROX 2 3/8 INCHES LONG WAS DISCOVERED IN WELD 1T48-2CPI-18-PID-6. THIS WELD IS LOCATED IN THE 18-INCH NITROGEN INERTING AND PURGE LINE BETWEEN DRYWELL PENETRATION X-25 AND INBOARD PRIMARY CONTAINMENT ISOLATION VALVE 1T48-F307. THE CRACK WAS GROUND OUT. THE WELD WAS REPAIRED AND SATISFACTORILY INSPECTED. FIVE ADDITIONAL WELDS IN THE SAME LINE WERE MAGNETIC PARTICLE INSPECTED, AND BOTH THE SUBJECT WELD AND THE NEXT WELD IN THE LINE WERE RADIOGRAPHED. NO ADDITIONAL FAILURE INDICATIONS WERE DETECTED.

[113] HATCH 1 DOCKET 50-321 LER 85-026  
 UNPLANNED REACTOR SCRAM DUE TO SHORT IN START-UP TRANSFORMER.  
 EVENT DATE: 062785 REPORT DATE: 072685 NSSS: GE TYPE: BWR

(NSIC 196394) ON 06/27/85 AT APPROXIMATELY 1320 CDT, WHILE PLANT PERSONNEL WERE PREPARING TO INCREASE LOAD ON THE UNIT, THE "1C" START-UP TRANSFORMER (SUT) SHORTED TO GROUND CAUSING LOSS OF POWER TO THE "A" AND "B" 4160 VOLT BUSES. THIS RESULTED IN LOSS OF POWER TO THE "A" AND "B" REACTOR RECIRCULATION PUMPS. WHILE PLANT PERSONNEL WERE ATTEMPTING TO MANUALLY SCRAM THE UNIT (REQUIRED BY TECH SPECS SECTION 3.6.J.1), AN AUTOMATIC SCRAM FROM THE NEUTRON MONITORING SYSTEM (I.E., LOSS OF RECIRCULATION PUMPS RESULTED IN AN APRM FLOW BIAS SCRAM SIGNAL) WAS RECEIVED. THE EVENT RESULTED FROM NON-LICENSED PLANT PERSONNEL CLOSING THE INCORRECT FIRE PROTECTION DELUGE VALVE DIAPHRAGM CHAMBER WATER SUPPLY VALVE. THIS CAUSED THE FIRE PROTECTION WATER SYSTEM TO ACTUATE AND SPRAY THE "1C" SUT, RESULTING IN A PHASE-TO-GROUND FAULT TRIP ON THE "1C" SUT. THE FIRE

PROTECTION DELUGE VALVE DIAPHRAGM CHAMBER WATER SUPPLY VALVES WERE LABELED CORRECTLY AND THE MISALIGNED DELUGE SPRAY NOZZLE WAS REALIGNED. POWER WAS RESTORED TO THE "1C" SUT AND THE "A" AND "B" 4160 VOLT BUSES. BOTH RECIRCULATION PUMPS WERE RETURNED TO SERVICE ON 06/28/85 AT APPROXIMATELY 1320 CDT.

[114] HATCH 1 DOCKET 50-321 LER 85-028  
FAILURE TO COMPLY WITH NEW TECHNICAL SPECIFICATIONS SURVEILLANCE REQUIREMENTS.  
EVENT DATE: 072985 REPORT DATE: 082885 NSSS: GE TYPE: BWR  
OTHER UNITS INVOLVED: HATCH 2 (BWR)

(NSIC 196228) ON 7-29-85 WITH UNIT 1 AT 0 MWT AND THE REACTOR MODE SWITCH IN THE SHUTDOWN POSITION AND UNIT 2 AT 2308 MWT (APPROX 95% REACTOR POWER), PLANT PERSONNEL MADE THE FOLLOWING DETERMINATIONS: 1. UNIT 1 TECH SPECS 4.15.2.4 (AMENDMENT 110) AND UNIT 2 TECH SPECS 4.11.2.4 (AMENDMENT 48) REQUIRE THAT OPERABILITY OF THE GASEOUS RADWASTE TREATMENT SYSTEM BE DEMONSTRATED BY ADMINISTRATIVE CONTROLS WHICH ASSURE THAT THE OFFGAS TREATMENT SYSTEM IS NOT BYPASSED WHENEVER THE MAIN CONDENSER AIR EJECTOR SYSTEM IS IN OPERATION. THIS REQUIREMENT IS NOT SATISFIED BY EXISTING PLANT PROCEDURES. 2. ITEM 4 OF UNIT 1 TECH SPECS 4.14.1-1 (AMENDMENT 110) AND ITEM 4 OF UNIT 2 TECH SPECS TABLE 4.3.6.9-1 (AMENDMENT 48) REQUIRE THAT THE PLANT SERVICE WATER (PSW) TO REACTOR BLDG CLOSED COOLING WATER (RBCCW) DIFFERENTIAL PRESSURE INSTRUMENTATION CHANNEL BE CHECKED ONCE PER 24 HRS. EXISTING PLANT PROCEDURES DO NOT MEET THIS REQUIREMENT. STANDING ORDERS WHICH WILL SATISFY THESE REQUIREMENTS UNTIL THE APPROPRIATE PROCEDURES CAN BE REVISED WERE IMPLEMENTED ON 7-29-85.

[115] HATCH 1 DOCKET 50-321 LER 85-030  
MAINTENANCE PERSONNEL INADVERTENTLY START EMERGENCY DIESEL GENERATOR.  
EVENT DATE: 082785 REPORT DATE: 092485 NSSS: GE TYPE: BWR

(NSIC 196343) ON 8-27-85 AT 0820 CDT WITH THE UNIT AT 2430 MWT (APPROX 100%), PLANT PERSONNEL WERE VERIFYING THE EQUIPMENT CLEARANCE IN PREPARATION FOR PERFORMING SEMI-ANNUAL PREVENTIVE MAINTENANCE ON THE 'A' EMERGENCY DG (1R43-S001A). PLANT PERSONNEL MISTAKENLY ENTERED THE 'C' DIESEL ROOM. THEY ATTEMPTED TO VENT THE AIR PRESSURE FROM THE DIESEL AIR START SYSTEM BY TAKING 'AT ENGINE' CONTROL OF THE DIESEL AND PRESSING THE START BUTTON; THIS IS THE NORMAL METHOD OF VENTING AIR FROM THE AIR START SYSTEM. SINCE THE STARTING AIR TO THE 'C' DIESEL WAS NOT ISOLATED, THE 'C' STARTED AND RAN NORMALLY. THE PERSONNEL INVOLVED IMMEDIATELY SHUTDOWN THE ENGINE AND PLACED THE 'REMOTE/AT ENGINE' SWITCH BACK TO THE 'REMOTE POSITION'. IN ORDER TO PREVENT THE RECURRENCE OF EVENTS OF THIS NATURE, THE DIESEL PREVENTIVE MAINTENANCE PROCEDURE WILL BE REVISED TO INCLUDE A SPECIFIC ORDER FOR CLEARANCE VERIFICATION WITH SIGN-OFFS AT EACH STEP. ADDITIONALLY, THE PERSONNEL INVOLVED IN THIS EVENT WERE DISCIPLINED.

[116] HATCH 1 DOCKET 50-321 LER 85-032  
SURVEILLANCE OF DRYWELL EXHAUST ISOLATION VALVE MISSED.  
EVENT DATE: 091885 REPORT DATE: 101185 NSSS: GE TYPE: BWR

(NSIC 196395) ON 09/18/85 AT APPROXIMATELY 1231 CDT DURING A BIENNIAL REVIEW OF THE "PRIMARY CONTAINMENT ISOLATION VALVE OPERABILITY" PROCEDURE, PLANT PERSONNEL DETERMINED THAT THE QUARTERLY SURVEILLANCE TEST FOR THE DRYWELL MAIN EXHAUST INBOARD ISOLATION VALVE (T48-F319) WAS NOT BEING PERFORMED AS REQUIRED BY TECH SPEC SECTION 4.7.D.1.C.(1). AN INVESTIGATION OF THIS EVENT REVEALED THAT LICENSED PERSONNEL MISTAKENLY DELETED THE SURVEILLANCE TEST FOR T48-F319 FROM THE PROCEDURE ON 07/02/79. TECH SPECS SECTION 4.7.D.1.C.(1) REQUIRES THAT ALL NORMALLY OPEN, POWER OPERATED ISOLATION VALVES SHALL BE FULLY CLOSED AND REOPENED. TECH SPECS TABLE 3.7-1, ITEMS 6 AND 10 IDENTIFIES T48-F319 AND F320, AND T48-F318 AND F326 AS NORMALLY OPEN ISOLATION VALVES, RESPECTIVELY. HOWEVER,

THESE VALVES ARE ACTUALLY NORMALLY CLOSED/FAIL CLOSED TYPE VALVES AND SHOULD NOT BE SUBJECT TO A TEST FOR NORMALLY OPEN VALVES. UPON DISCOVERY OF THIS EVENT, THE REQUIRED LCO WAS INITIATED PER TECH SPECS SECTION 3.7.D.2 AND REMAINED IN EFFECT UNTIL T48-F319 WAS TESTED AND PROVEN OPERABLE PER STANDING ORDER 85-51, ON 09/21/85 AT APPROXIMATELY 0230 CDT. T48-F319 WILL CONTINUE BEING TESTED ONCE PER QUARTER PER STANDING ORDER 85-51 UNTIL THE PROCEDURE IS REVISED TO INCLUDE THE REQUIRED TEST.

[117] HATCH 2 DOCKET 50-366 LER 84-010 REV 1  
 UPDATE ON RWCU ISOLATION ON HIGH DIFFERENTIAL FLOW.  
 EVENT DATE: 092484 REPORT DATE: 110584 NSSS: GE TYPE: BWR

(NSIC 196369) ON 9-8-84, AT 1500 CDT, THE RWCU INBOARD AND OUTBOARD ISOLATION VALVES (2G31-F001 AND 2G31-F004, RESPECTIVELY) ISOLATED DUE TO A HIGH DIFFERENTIAL FLOW SIGNAL. NO ACTUAL OR POTENTIAL SAFETY CONSEQUENCES OR IMPLICATIONS RESULTED FROM THIS EVENT. THIS EVENT HAD NO IMPACT ON ANY OTHER UNIT 2 SYSTEMS OR ON UNIT 1. AN INVESTIGATION CONCLUDED THAT WHEN THE 'A' RWCU DEMINERALIZER WAS MANUALLY VALVED IN (AFTER A BACKWASH AND PRECOAT), THE DEMINERALIZER WAS NOT COMPLETELY FULL. THUS, THE HIGH DIFFERENTIAL FLOW SIGNAL AND SUBSEQUENT ISOLATION SIGNAL WERE RECEIVED. ON 9-24-84, WHILE PERFORMING AN INVESTIGATION TO WRITE ANOTHER LER, PLANT PERSONNEL DETERMINED THAT THE ABOVE EVENT HAD OCCURRED. ON 9-26-84 THE DETERMINATION WAS MADE THAT A DEFICIENCY REPORT HAD NOT BEEN WRITTEN DUE TO PERSONNEL OVERSIGHT. A DEFICIENCY REPORT WAS FILED AND THE 4 HR NOTIFICATION AS REQUIRED BY 10CFR50.72(B)(2)(II) WAS MADE. THUS, THE DISCOVERY DATE FOR THIS EVENT WAS 9-24-84.

[118] HATCH 2 DOCKET 50-366 LER 84-018 REV 1  
 UPDATE ON DESIGN ERROR ON STANDBY DIESEL SERVICE WATER PUMP SUPPORT.  
 EVENT DATE: 100284 REPORT DATE: 020485 NSSS: GE TYPE: BWR  
 VENDOR: JOHNSTON PUMP CO.

(NSIC 196370) ON 10-2-84 THE JOHNSTON PUMP CO INFORMED SOUTHERN CO SERVICES THAT STANDBY SERVICE WATER PUMP 2P41-C002 MIGHT NOT WITHSTAND A DESIGN BASIS EARTHQUAKE BECAUSE OF AN INCORRECT ASSUMPTION IN CALCULATING THE STRESS ANALYSIS PRIOR TO INSTALLING A PUMP COLUMN SUPPORT ON 5-31-82. AN LCO WAS INITIATED ON 10-2-84, AND DG R43-S001B WAS REMOVED FROM SERVICE. FOLLOWING AN ENGINEERING REVIEW BY THE BECHTEL POWER CORP, THE STANDBY SERVICE WATER PUMP'S RESTRAINT SPLIT RING WAS REMOVED, THUS RETURNING THE PUMP TO ITS ORIGINAL DESIGN CONFIGURATION. THE 60 DAY LCO WAS TERMINATED AND DG R43-S001B RETURNED TO SERVICE ON 10-22-84. THIS EVENT IS REPORTABLE PER 10CFR50.73(A)(2)(VI). AFTER FURTHER ENGINEERING EVALUATION A DESIGN CHANGE REQUEST WAS INITIATED. THE STANDBY SERVICE WATER PUMP'S TOP COLUMN FLANGE WAS REPAIRED WITH A NEW 1-INCH THICK TOP COLUMN FLANGE. ADDITIONALLY THE PUMP'S TOP COLUMN RESTRAINT WAS REINSTALLED, AND THE PUMP'S LOWER RESTRAINT WAS REMOVED.

[119] HATCH 2 DOCKET 50-366 LER 85-028  
 NEW SURVEILLANCE TESTS NOT PERFORMED IN A TIMELY MANNER.  
 EVENT DATE: 080985 REPORT DATE: 090685 NSSS: GE TYPE: BWR

(NSIC 196294) ON 8-9-85 AND 8-12-85, DURING A LINE-BY-LINE REVIEW OF THE UNIT 2 TECH SPECS VERSUS THE CORRESPONDING IMPLEMENTING PROCEDURES, PLANT PERSONNEL DETERMINED THAT 3 SURVEILLANCE REQUIREMENTS WERE NOT BEING SATISFIED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TECH SPECS AFTER AMENDMENTS 27, 38, AND 45 WERE INCORPORATED. UPON DETERMINATION OF EACH EVENT, PLANT PERSONNEL TOOK THE REQUIRED ACTIONS TO PERFORM THE SURVEILLANCES WITHIN THE APPLICABLE TECH SPECS LCO'S. THESE EVENTS WERE THE RESULT OF PERSONNEL (NON-LICENSED UTILITY PERSONNEL) ERROR IN THAT THE TECH SPECS AMENDMENTS WERE NOT FULLY INCORPORATED INTO THE NECESSARY PROCEDURES TO ENSURE COMPLIANCE TO THE NEW REQUIREMENTS WHEN

THE AMENDMENTS WERE IMPLEMENTED. THIS IS A SIMILAR EVENT AS LAST REPORTED BY LER 50-321/85-028 (SIGNED 8-28-85). THE EVENTS IN THIS LER OCCURRED PRIOR TO LER 50-321/85-028. THUS, THE CORRECTIVE ACTIONS TAKEN FOR LER 50-321/85-028 COULD NOT HAVE PREVENTED THE OCCURRENCE OF THE EVENT IN THIS LER.

[120] HATCH 2 DOCKET 50-366 LER 85-029  
SETTLEMENT SURVEILLANCE ON MAIN STACK MISSED THREE TIMES.  
EVENT DATE: 080985 REPORT DATE: 090685 NSSS: GE TYPE: BWR

(NSIC 196295) ON 8-9-85 WITH THE UNIT OPERATING AT 100% POWER, THE PLANT SURVEILLANCE COORDINATOR WAS UPDATING THE SEISMIC CATEGORY 1 STRUCTURES SETTLEMENT REPORT WITH DATA OBTAINED FROM THE 7-85 SURVEY. AT THAT TIME, HE DETERMINED THAT THE STRUCTURE SETTLEMENT SURVEILLANCE HAD NOT BEEN PERFORMED FOR THE MAIN STACK IN 1-81, 1-84, AND 8-84. THIS EVENT IS CONTRARY TO THE REQUIREMENTS OF TECH SPECS 4.7.8.B WHICH REQUIRES THAT THE TOTAL SETTLEMENT OF EACH STRUCTURE BE DETERMINED AT LEAST ONCE EACH 6 MONTHS. THIS EVENT IS THE RESULT OF PROCEDURAL INADEQUACY IN THAT THE 'MONITORING OF CATEGORY 1 STRUCTURES' PROCEDURE PERMITS THE TERMINATION OF A STRUCTURE SURVEY IF THE STRUCTURE'S BENCHMARK(S) IS OBSTRUCTED, OR IF EXCESS RADIATION IS PRESENT IN THE STRUCTURE. THE SURVEILLANCE WAS NOT PERFORMED DUE TO AIRBORNE RADIATION IN THE STACK AT THE TIME THE SURVEILLANCE WAS DUE BUT NOT PERFORMED.

[121] HATCH 2 DOCKET 50-366 LER 85-022  
DRYWELL PRESSURE AND RADIATION INSTRUMENTS NOT TESTED.  
EVENT DATE: 081485 REPORT DATE: 091085 NSSS: GE TYPE: BWR

(NSIC 196244) ON 8-14-85 PLANT PERSONNEL DETERMINED THAT THE MONTHLY CHANNEL CHECK FOR THE FOLLOWING INSTRUMENTATION WAS NOT BEING PERFORMED AS REQUIRED BY THE SPECIFIED TECH SPECS: A. DRYWELL HIGH RANGE PRESSURE INSTRUMENTATION AS REQUIRED BY ITEM 11 OF TECH SPECS TABLE 4.3.6.4-1 (AMENDMENT 45), AND B. DRYWELL HIGH RANGE RADIATION INSTRUMENTATION AS REQUIRED BY ITEM 12 OF TECH SPECS TABLE 4.3.6.4-1 (AMENDMENT 45). THE PLANT WAS IN COMPLIANCE WITH THE REQUIREMENTS OF THE CITED TECH SPECS REQUIREMENTS AT THE TIME OF EVENT DETERMINATION BECAUSE A STANDING ORDER HAD BEEN IMPLEMENTED ON 6-24-85 TO SATISFY THE ABOVE REQUIREMENTS. ON 7-5-85, THE 'SURVEILLANCE CHECKS' PROCEDURE (HNP-2-1050) WAS REVISED TO INCORPORATE THE TECH SPECS REQUIREMENTS. PREVIOUS SIMILAR EVENTS IN WHICH PROCEDURES DID NOT MEET THE REQUIREMENTS OF TECH SPECS WERE REPORTED IN LER 366/84-030, 321/85-028, AND 366/85-029.

[122] HATCH 2 DOCKET 50-366 LER 85-027  
TEST ERROR CAUSES RWCU ISOLATION.  
EVENT DATE: 090485 REPORT DATE: 092785 NSSS: GE TYPE: BWR

(NSIC 196406) ON 9-4-85 AT APPROX 0957 CDT, PLANT PERSONNEL WERE PERFORMING THE 'RWCU SYSTEM ROOM AMBIENT DELTA T INSTRUMENT FT&C' SURVEILLANCE PROCEDURE (57SV-G31-004-2) WITH RWCU IN SERVICE. DURING THIS TEST A FUSE BLEW RESULTING IN THE AUTOMATIC ISOLATION OF THE INBOARD RWCU PRIMARY CONTAINMENT ISOLATION VALVE (2G31-F001). THE FUSE BLEW WHEN A JUMPER WHICH HAD BEEN INSTALLED ACROSS TERMINALS ON A GE CR120 RELAY (PER THE SURVEILLANCE PROCEDURE) CAME OFF ONE RELAY TERMINAL WHEN THE RELAY ACTIVATED AS EXPECTED AND TOUCHED THE CABINET. AN INVESTIGATION IS UNDERWAY TO PROVIDE CORRECTIVE ACTION TO PREVENT RECURRENCE OF JUMPERS COMING OFF THE GE CR120 RELAY SCREWS DURING RELAY OPERATION IN THE PERFORMANCE OF SURVEILLANCE PROCEDURE 57SV-G31-004-2.

[123] HUMBOLDT BAY DOCKET 50-133 LER 85-005  
 INADVERTENT START OF SPURIOUS RADIATION MONITOR SIGNAL CAUSES GAS TREATMENT PUMP  
 AND FAN TO START.  
 EVENT DATE: 072485 REPORT DATE: 081685 NSSS: GE TYPE: BWR

(NSIC 195947) AT 1755 HOURS ON JULY 24, 1985, A SPURIOUS SPIKE ON AN AREA  
 RADIATION MONITOR CAUSED THE GAS TREATMENT PUMP AND FAN TO START. AFTER  
 EVALUATING RADIOLOGICAL CONDITIONS, OPERATIONS PERSONNEL RESET THE ALARM AND  
 SECURED THE GAS TREATMENT SYSTEM. NO PROBLEMS WERE DISCOVERED DURING SUBSEQUENT  
 TESTING OF THE DETECTOR OR ITS ASSOCIATED RATEMETER. SINCE THE EVENT DESCRIBED  
 HERE, THE MONITOR HAS FUNCTIONED PROPERLY.

[124] INDIAN POINT 2 DOCKET 50-247 LER 85-007  
 SERVICE WATER PUMP SEISMIC RESTRAINTS IMPROPERLY MODIFIED.  
 EVENT DATE: 071185 REPORT DATE: 081085 NSSS: WE TYPE: PWR

(NSIC 196431) ON 7-11-85, AN INSPECTION OF THE 6 SERVICE WATER PUMPS INDICATED A  
 GAP BETWEEN THE SEISMIC RESTRAINT AND A COLLAR MOUNTED ON THE VERTICAL PUMPS IN  
 EXCESS OF THAT SPECIFIED ON THE ORIGINAL STRUCTURAL DRAWING. IN ADDITION, THE  
 RESTRAINTS DID NOT ALIGN VERTICALLY WITH THE SEISMIC COLLARS MOUNTED ON THE PUMP  
 CASING. IN RESPONSE TO THESE FINDINGS, ON 7-11-85 FOUR PLATES (EACH REPRESENTING  
 A 90 DEGREE SECTOR) WERE WELDED TO THE EXISTING PLATES FOR EACH PUMP, WHICH  
 ELIMINATED THE EXCESSIVE GAP AND CORRECTED THE VERTICAL ALIGNMENT PROBLEM. AN  
 EVALUATION OF MAINTENANCE RECORDS REVEALED A 11-20-75 MAINTENANCE REQUEST  
 ADDRESSING EXCESSIVE VIBRATION ON #26 SERVICE WATER PUMP (PUMP WAS MISALIGNED  
 WITH THE CASING IN HARD CONTACT WITH THE HORIZONTAL RESTRAINT). THE RESTRAINT  
 WAS RELAXED AND VIBRATION DECREASED TO AN ACCEPTABLE LEVEL. IT IS BELIEVED THAT  
 IN THE PROCESS OF RELAXING THE RESTRAINT, THE GAP WAS ENLARGED BY THE CUTTING OF  
 METAL FROM THE RESTRAINT PLATE. THIS SAME PROCESS WAS EVIDENTLY EMPLOYED ON ALL  
 6 PUMPS. THE VERTICAL MISALIGNMENT OBSERVED WAS EVIDENTLY DUE TO SHIMMING OF THE  
 PUMPS DURING REPLACEMENT OR MAINTENANCE. A STRESS ANALYSIS IS UNDERWAY TO  
 DETERMINE WHETHER THE SERVICE WATER PUMPS IN THEIR 'AS FOUND' CONDITION WOULD  
 HAVE REMAINED OPERABLE DURING A DESIGN BASIS SEISMIC EVENT.

[125] INDIAN POINT 2 DOCKET 50-247 LER 85-008  
 DROPPED ROD PREVENTS DAILY HEAT BALANCE TEST.  
 EVENT DATE: 082185 REPORT DATE: 092085 NSSS: WE TYPE: PWR

(NSIC 196432) ON 8-21-85 A ROD DROP OCCURRED DURING A CONTROL ROD INSERTION TEST.  
 THE RESULTANT XENON BUILDUP CAUSED A FLUX TILT WHICH NECESSITATED A POWER  
 REDUCTION. AS A RESULT, A TECH SPEC REQUIREMENT FOR A DAILY HEAT BALANCE COULD  
 NOT BE PERFORMED FOR THE MAJOR PART OF THE DAY AND WAS ULTIMATELY INADVERTENTLY  
 OMITTED ON 8-21-85. FOLLOWING THE TRANSIENT, REACTOR POWER WAS LIMITED TO A  
 MAXIMUM OF 81%. THE HIGH FLUX TRIPS WERE SET CONSERVATIVELY AT APPROX 90% FOR A  
 9 HR PERIOD. A HEAT BALANCE PERFORMED ON THE FOLLOWING DAY INDICATED THAT THE  
 NUCLEAR INSTRUMENTATION HAD REMAINED CONSERVATIVELY (APPROX 2%) WITHIN  
 CALIBRATION THE PREVIOUS DAY.

[126] INDIAN POINT 2 DOCKET 50-247 LER 85-009  
 OUTPUT TRANSFORMER SHORT CAUSES REACTOR TRIP.  
 EVENT DATE: 092085 REPORT DATE: 101885 NSSS: WE TYPE: PWR  
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 196265) ON 9-20-85 AT 9:54 AM THE UNIT NO. 2 TURBINE GENERATOR TRIPPED,  
 WHICH CAUSED A SUBSEQUENT REACTOR TRIP. THE REACTOR WAS AT 95% POWER AT THE TIME  
 OF THE TRIP. THE CAUSE OF THE TURBINE GENERATOR TRIP WAS A SHORT CIRCUIT BETWEEN  
 THE B AND C PHASES OF NUMBER 21 MAIN TRANSFORMER. AN INVESTIGATION CONCLUDED  
 THAT THE TRANSFORMER SHORT WAS CAUSED BY BRACKISH RIVER WATER DRIFT FROM THE

CONDENSER WATER BOX LIFTING JET EXHAUST WHICH WAS SUBSEQUENTLY RELOCATED. THE ACTUATION OF THE RPS WAS IN ACCORDANCE WITH DESIGN.

[127] INDIAN POINT 2 DOCKET 50-247 LER 85-010  
STEAM GENERATOR HIGH LEVEL CAUSES REACTOR TRIP.  
EVENT DATE: 092385 REPORT DATE: 102385 NSSS: WE TYPE: PWR

(NSIC 196205) THE REACTOR TRIPPED ON 9-23-85 DURING RESTART FROM A UNIT TRIP REPORTED IN LER 85-009. A HIGH SG LEVEL SIGNAL RESULTED IN A MAIN GENERATOR TRIP WHICH, IN TURN, CAUSED A TURBINE TRIP/REACTOR TRIP. THE CAUSE OF THE TRIP IS ATTRIBUTED TO OPERATOR FAILURE TO ANTICIPATE A SG SWELL AT THE TIME OF A SYNCHRONIZATION OF THE GENERATOR OUTPUT TO THE BUS AND PICK UP OF LOAD. THE RPS FUNCTIONED NORMALLY AND THERE WERE NO ABNORMALITIES OBSERVED IN OTHER SAFETY-RELATED EQUIPMENT.

[128] INDIAN POINT 2 DOCKET 50-247 LER 85-012  
LOW POWER RANGE/HIGH FLUX SIGNAL CAUSES REACTOR TRIP.  
EVENT DATE: 092885 REPORT DATE: 102885 NSSS: WE TYPE: PWR

(NSIC 196379) ON 9-28-85 A NORMAL PLANT STARTUP WAS IN PROGRESS. AT 3:55 AM THE POWER RANGE NUCLEAR INSTRUMENTATION WAS INDICATING APPROX 24% POWER. THE INTERMEDIATE RANGE HIGH FLUX LEVEL ROD STOP ANNUNCIATOR ALARMED. THE OPERATOR WAS ABLE TO BLOCK THE INTERMEDIATE RANGE TRIP AND WAS PROCEEDING TO BLOCK THE POWER RANGE HIGH FLUX - LOW LEVEL TRIP (SET AT 25% POWER) WHEN THE REACTOR TRIPPED AT 3:59 AM. THE OPERATORS STABILIZED THE PLANT IN THE HOT SHUTDOWN CONDITION. THE CAUSE OF THE REACTOR TRIP WAS FAILURE ON THE PART OF THE OPERATOR TO BLOCK THE POWER RANGE HIGH FLUX-LOW LEVEL TRIP WHEN REACTOR POWER WAS GREATER THAN 10% AND THE 'PERMISSIVE' FOR BLOCKING EXISTED. THE RPS FUNCTIONED AS DESIGNED WHEN AT 25% REACTOR POWER WITH THE POWER RANGE HIGH FLUX-LOW LEVEL TRIP UNBLOCKED.

[129] INDIAN POINT 3 DOCKET 50-286 LER 84-015 REV 1  
UPDATE ON EQUIPMENT FAILURE DURING STATION LOSS OF NORMAL OFFSITE POWER.  
EVENT DATE: 111684 REPORT DATE: 062685 NSSS: WE TYPE: PWR  
VENDOR: BUSSMANN MFG (DIV OF MCGRAW-EDISON)  
SHAWMUT COMPANY  
WESTINGHOUSE ELECTRIC CORP.

(NSIC 196194) ON 11-16-84, WITH THE REACTOR IN THE COLD SHUTDOWN CONDITION, A PHASE TO PHASE FAULT ACROSS THE STATION AUXILIARY TRANSFORMER (ST) BUSWORK CAUSED A LOSS OF NORMAL OFFSITE POWER TO THE UNIT. BOTH OPERABLE EMERGENCY DG'S STARTED AS REQUIRED. DURING THE TEMPORARY LOSS OF NORMAL OFFSITE POWER, SEVERAL BREAKERS IN THE PLANT'S ELECTRICAL DISTRIBUTION SYSTEM FAILED TO OPERATE. THE PLANT OPERATORS RESTORED STATION POWER THROUGH AN ALTERNATE OFFSITE SOURCE, AND RESTARTED ALL NECESSARY EQUIPMENT. THE FAULT WAS FOUND TO HAVE BEEN CAUSED BY A PIECE OF METAL WHICH WAS BLOWN ONTO THE A AND B PHASE BUSWORK OF THE STATION TRANSFORMER BY HIGH WINDS.

[130] KEWAUNEE DOCKET 50-305 LER 85-015  
INADEQUATE DOCUMENTATION TO SUPPORT SEISMIC QUALIFICATION OF DIESEL GENERATOR DIFFERENTIAL RELAYS.  
EVENT DATE: 061785 REPORT DATE: 071785 NSSS: WE TYPE: PWR  
VENDOR: GENERAL ELECTRIC CO.

(NSIC 196279) ON 6-17-85, FLUOR ENGINEERS, INC. NOTIFIED WISCONSIN PUBLIC SERVICE CORPORATION THAT THE SEISMIC QUALIFICATION OF THE EMERGENCY DG DIFFERENTIAL RELAYS COULD NOT BE CONCLUSIVELY DETERMINED. THE RELAYS ARE GE MODEL 12CFD22B1A.

WITH THIS INFORMATION AND ADDITIONAL DETAILS PROVIDED IN INPO SER 18-84 SUPPLEMENT 1, 'DG DIFFERENTIAL RELAYS NOT SEISMICALLY QUALIFIED', A MANAGEMENT DECISION WAS MADE TO DEFEAT THE DIFFERENTIAL RELAYS' TRIP FUNCTION. THIS WAS COMPLETED BY 1600 ON 6-17-85. THE LONG TERM RESOLUTION OF THIS DISCREPANCY IS BEING EVALUATED, AND DETAILS WILL BE PROVIDED IN A SUPPLEMENTAL REPORT.

[131] KEWAUNEE DOCKET 50-305 LER 85-017  
MANUAL REACTOR TRIP DUE TO RUPTURE OF STEAM VENT LINE.  
EVENT DATE: 080885 REPORT DATE: 090685 NSSS: WE TYPE: PWR

(NSIC 196226) ON 8-8-85 AT 0032 A MANUAL REACTOR TRIP WAS REQUIRED IN ORDER TO ISOLATE A RUPTURED EXCESS STEAM VENT LINE FROM THE 1A2 MSR TO THE 15A FEEDWATER HEATER. IMMEDIATELY AFTER THE TRIP RECOVERY ACTIONS WERE FOLLOWED PER PROCEDURE AND, A POST TRIP REVIEW WAS PERFORMED. ALL OF THE EQUIPMENT NECESSARY TO ENSURE A COMPLETE REACTOR AND TURBINE TRIP OPERATED PROPERLY. AT 0825 ON THE SAME DAY, WHEN ATTEMPTING A REACTOR STARTUP, THE OPERATOR FAILED TO BLOCK THE SOURCE RANGE HI FLUX SIGNAL AND RECEIVED A REACTOR TRIP. A POST TRIP REVIEW WAS PERFORMED AND ALL THE EQUIPMENT REQUIRED TO ENSURE A COMPLETE REACTOR TRIP FUNCTIONED NORMALLY. A STARTUP WAS REINITIATED AND THE REACTOR WAS CRITICAL BY 0908. MAINTENANCE COMPLETED REPLACING THE RUPTURED VENT LINE AND AT 1513 THE PLANT WAS SYNCHRONIZED TO THE DISTRIBUTION GRID. CAUSE OF THE RUPTURED LINE WAS ATTRIBUTED TO EROSION OF THE CARBON STEEL PIPING. AN INPLACE PROGRAM TO EXAMIN STEAMLINE PIPING FOR TUBE WALL THINNING AND REPLACEMENT WILL BE CONTINUED.

[132] LA SALLE 1 DOCKET 50-373 LER 85-048  
'A' RHR SERVICE WATER PRM INOPERABLE, SAMPLE MISSED.  
EVENT DATE: 061485 REPORT DATE: 071085 NSSS: GE TYPE: BWR

(NSIC 196004) AT 1715 HRS ON 6-14-85 A SAMPLE OF THE UNIT 1 'A' RHR SERVICE WATER WAS NOT OBTAINED TO MEET THE SAMPLING REQUIREMENTS OF TECH SPEC 3/4.3.7.10 ACTION 101 WITH THE RADIOACTIVE LIQUID EFFLUENT PROCESS RADIATION MONITOR INOPERABLE. THE CAUSE WAS LACK OF CLEAR COMMUNICATION BETWEEN THE RAD CHEM AND OPERATING DEPARTMENTS. SAMPLES TAKEN PRIOR TO, AND SUBSEQUENT TO THE EVENT DID NOT SHOW ANY MEASURABLE ACTIVITY. A CONDUCT OF OPERATIONS MEMO WILL BE WRITTEN FOR THE RAD CHEM FOREMAN TO OBTAIN CONCURRENCE FROM A LICENSED SRO PRIOR TO SUSPENDING ANY SAMPLING REQUIRED AS A RESULT OF A TECH SPEC ACTION STATEMENT.

[133] LA SALLE 1 DOCKET 50-373 LER 85-057 REV 1  
UPDATE ON CONTAMINATED DRUMS FOUND.  
EVENT DATE: 080285 REPORT DATE: 091385 NSSS: GE TYPE: BWR

(NSIC 196360) A RADIATION SURVEY OF THE LASALLE STATION DUMP WAS PERFORMED ON AUGUST 2, 1985. DURING THIS SURVEY TWO 55-GALLON DRUMS WITH INTERNAL CONTAMINATION WERE FOUND BY AN RCT AND A QUALITY ASSURANCE INSPECTOR. A SUBSEQUENT SURVEY WAS PERFORMED ON AUGUST 8-9, 1985, AND RESULTED IN FIVE ADDITIONAL INTERNALLY CONTAMINATED 55-GALLON DRUMS AND A 5' X 5' AREA OF CONTAMINATED SOIL. THE DRUMS WERE REMOVED FROM THE DUMP AND EFFORTS ARE CURRENTLY IN PROGRESS TO ELIMINATE THE DUMP. THE CONTAMINATED SOIL WAS PLACED IN A 55-GALLON DRUM. IT IS NOT KNOWN HOW THE DRUMS CAME TO BE LOCATED AT THE DUMP. A PROCEDURE FOR UNCONDITIONAL RELEASE WAS IN PLACE AT THE TIME THIS WAS THOUGHT TO HAVE OCCURRED.

[134] LA SALLE 1 DOCKET 50-373 LER 85-062  
SPURIOUS TRIP OF TWO CHLORINE DETECTORS.  
EVENT DATE: 082385 REPORT DATE: 092085 NSSS: GE TYPE: BWR  
OTHER UNITS INVOLVED: LA SALLE 2 (BWR)  
VENDOR: WALLACE & TIEMAN, INC.

(NSIC 196297) AT 2105 HRS ON 8-23-85, BOTH CHLORINE DETECTORS FOR THE 'B' TRAIN OF THE CONTROL ROOM/AUX ELECTRICAL EQUIPMENT ROOM HVAC SYSTEM ALARMED SIMULTANEOUSLY RESULTING IN ESP DAMPER OPERATIONS. CHLORINE SMELLS IN THE AUX EQUIPMENT ROOM WERE REPORTED TO THE CONTROL ROOM. THE RADIATION CHEMISTRY DEPARTMENT TOOK SAMPLES IN THE ROOM, OTHER AREAS IN THE PLANT, AND AT THE VC INTAKE FOR THE CHLORINE DETECTORS. NO CHLORINE WAS DETECTED. NO CAUSE FOR THE ACTUATIONS COULD BE FOUND, BUT IT IS BELIEVED THAT THESE DETECTORS ARE SUSCEPTIBLE TO RADIO-FREQUENCY INTERFERENCE. BOTH DETECTORS WERE RESET AND OPERATED PROPERLY. THE POTENTIAL FOR RADIO-FREQUENCY INTERFERENCE WAS INVESTIGATED UNDER ACTION ITEM RECORD 373-200-85-00072 AND THE RESULTS SHOWED THAT ALL THE DETECTORS APPEAR TO BE SUSCEPTIBLE TO RADIO FREQUENCY INTERFERENCE WITHIN A 3 FOOT RANGE. SIGNS WILL BE POSTED WARNING OF THE POSSIBLE EFFECTS OF RADIO FREQUENCY INTERFERENCE.

[135] LA SALLE 2 DOCKET 50-374 LER 84-021 REV 1  
 UPDATE ON REACTOR WATER CLEANUP ISOLATION HIGH DIFFERENTIAL FLOW.  
 EVENT DATE: 051584 REPORT DATE: 091384 NSSS: GE TYPE: BWR  
 VENDOR: MOORE PRODUCTS COMPANY

(NSIC 195914) ON MAY 15, 1984, AT 2026 HOURS, THE REACTOR WATER CLEANUP SYSTEM (CE) ISOLATED ON HIGH DIFFERENTIAL FLOW. THE 2C FILTER DEMINERALIZER POST STRAINER SECTION OF THE SYSTEM WAS BEING TAKEN OUT OF SERVICE FOR REPAIRS. THE AIR TO THE FILTER OUTLET VALVE HAD BEEN ISOLATED, AND THE POST STRAINER PIPING WAS BEING DRAINED. AFTER A SHORT TIME, THE OUTLET VALVE OPENED, ALLOWING WATER TO BACK FLOW INTO THE POST STRAINER AND DRAIN TO RADWASTE. THE SYSTEM THEN ISOLATED ON HIGH DIFFERENTIAL FLOW. THE SYSTEM OPERATED PER DESIGN. SAFE PLANT OPERATIONS WERE MAINTAINED AT ALL TIMES. AN INVESTIGATION AS TO WHY THIS VALVE OPENED INSTEAD OF CLOSED WAS CONDUCTED, BUT NO PROBLEMS WITH THE VALVE WERE IDENTIFIED.

[136] LA SALLE 2 DOCKET 50-374 LER 85-033  
 MODIFICATION WORK CAUSES INADVERTENT CONTAINMENT ISOLATION.  
 EVENT DATE: 070185 REPORT DATE: 072985 NSSS: GE TYPE: BWR

(NSIC 196005) ON 7-1-85 AT 1453 HRS WITH THE UNIT IN COLD SHUTDOWN, A PARTIAL GROUP VI PRIMARY CONTAINMENT ISOLATION WAS RECEIVED. AT THE TIME, WORK WAS BEING DONE ON THE 2E31-N012AA, AB, BA AND BB INSTRUMENTS, RHR SYSTEM HIGH FLOW SWITCHES PER WORK REQUEST L49768. THE ISOLATION VALVES FOR THE SWITCHES WERE PLACED OUT OF SERVICE CLOSED, BUT THE ISOLATION LOGIC WAS NOT JUMPERED OUT. WHEN PRESSURE WAS RELIEVED FROM 1 OF THE PIPES, A DIFFERENTIAL PRESSURE WAS CREATED WHICH ISOLATED THE SYSTEM. A TEMPORARY SYSTEM CHANGE WAS INITIATED TO ELECTRICALLY BYPASS THE ISOLATION LOGIC, THE RHR SHUTDOWN COOLING SYSTEM WAS RESTARTED AND WORK WAS CONTINUED. NO FURTHER ISOLATIONS OCCURRED.

[137] LA SALLE 2 DOCKET 50-374 LER 85-039  
 ELECTRICAL FAULT ON ECCS MOTOR CONTROL CENTER.  
 EVENT DATE: 082085 REPORT DATE: 091685 NSSS: GE TYPE: BWR  
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 196298) ON 8-20-85 AT 1943 HRS AND UNIT 2 OPERATING AT 89% POWER, THE ECCS DIV III FEEDBREAKER TRIPPED RESULTING IN A LOSS OF POWER TO BUS 243-1. THE HIGH PRESSURE CORE SPRAY, DIV III, AND THE 2B DG WERE DECLARED INOPERABLE. THE CAUSE OF THE TRIP WAS AN ELECTRICAL FAULT ORIGINATING FROM THE 2B DG COOLING WATER PUMP CIRCUIT BREAKER COMPARTMENT. FURTHER INVESTIGATION OF THE CIRCUIT BREAKER COMPARTMENT REVEALED A SINGLE PHASE TO GROUND FAULT HAD OCCURRED AS A RESULT OF WORN INSULATION ON A CIRCUIT BREAKER TERMINAL LEAD. THIS FAILURE WAS APPARENTLY CAUSED BY THE LEAD BEING ORIGINALLY INSTALLED TOO TIGHTLY ACROSS A METAL STRIP WHICH EVENTUALLY CUT THROUGH THE INSULATION. THE DIV III FEEDBREAKER TRIPPED AS

A RESULT OF THE OVERCURRENT CONDITION EXISTING AFTER THE GROUND FAULT. THE COMPARTMENT WAS REPLACED AND THE 2B DG AND COOLING WATER PUMP WERE DECLARED OPERABLE AT 0607 HRS ON 8-23-85. THE HIGH PRESSURE CORE SPRAY WAS DECLARED OPERABLE AT 1200 HRS ON 8-26-85.

[138] LA SALLE 2 DOCKET 50-374 LER 85-040 REV 1  
UPDATE ON HIGH BORON CONCENTRATION IN STANDBY LIQUID CONTROL TANK.  
EVENT DATE: 082285 REPORT DATE: 103185 NSSS: GE TYPE: BWR  
VENDOR: GENERAL ELECTRIC CORP. (NUCLEAR ENG DIV)

(NSIC 196361) ON AUGUST 22, 1985, AT 1200 HOURS, THE UNIT 2 SBLC (BR) SOLUTION TANK CONCENTRATION WAS MEASURED TO BE 14.7% BY WEIGHT. SINCE THERE WAS NO PREVIOUS INDICATION OF A PROBLEM IN THIS AREA, THE UNIT CHEMIST AND THE SHIFT OPERATING FOREMAN FELT THAT ADDING MAKEUP WATER WOULD BRING THE SBLC SOLUTION TANK WITHIN TECH SPECS. AT 1500 HOURS, THE ACTION STATEMENT WAS ENTERED AND THE UNIT 2 SBLC SYSTEM WAS LOGGED IN THE DEGRADED EQUIPMENT LOG AND DECLARED INOPERABLE. A SECOND SAMPLE, WHICH WAS PULLED AT 1745 HOURS AND THE ANALYSIS COMPLETED @2020 HOURS, WAS DETERMINED TO BE 14.15%. ANOTHER ATTEMPT AT LOWERING TANK CONCENTRATION BY ADDING WATER WAS UNSUCCESSFUL. AT 2300 HOURS, AN UNUSUAL EVENT WAS DECLARED AND A UNIT SHUTDOWN WAS INITIATED. THE RADIATION CHEMISTRY DEPARTMENT COORDINATED EFFORTS WITH THE OPERATING DEPARTMENT TO BRING THE SOLUTION TANK CONCENTRATION WITHIN THE TECH SPEC LIMITS. AT 0510 HOURS ON AUGUST 23, 1985, THE SBLC SYSTEM WAS RETURNED TO OPERABLE STATUS AND THE UNUSUAL EVENT WAS TERMINATED. THE CAUSE OF THE OCCURRENCE WAS WATER EVAPORATION FROM THE TANK. ADEQUATE SODIUM PENTABORATE WAS AVAILABLE IN THE SBLC SOLUTION TANK TO BRING THE UNIT 2 REACTOR FROM RATED POWER TO COLD SHUTDOWN.

[139] LACROSSE DOCKET 50-409 LER 85-016  
FUSE SHORTED DURING RECORDER MAINTENANCE CAUSING REACTOR SCRAM.  
EVENT DATE: 091485 REPORT DATE: 100385 NSSS: AC TYPE: BWR

(NSIC 196363) DURING MAINTENANCE ON A RECORDER, THE TECHNICIAN CAUSED A SHORT WHICH BLEW FUSE 32-1, WHICH SUPPLIED SOME CONTROL ROOM INSTRUMENTATION FROM THE 1B NONINTERRUPTIBLE BUS. ONE OF THE SIGNALS DE-ENERGIZED WAS FEEDWATER FLOW. THIS CAUSED THE REACTOR WATER LEVEL CONTROL SYSTEM TO INCREASE THE REACTOR FEED PUMP SPEED TO INCREASE FEEDWATER FLOW. THE REACTOR SCRAMMED ON HIGH WATER LEVEL. WATER LEVEL STABILIZED AT 20 INCHES ABOVE NORMAL. THE REACTOR FEED PUMP WAS SECURED, FUSE 32-1 WAS REPLACED. AS A LONG TERM PROJECT, SEPARATION OF SOME OF THE INSTRUMENTATION CURRENTLY SUPPLIED THROUGH FUSE 32-1 WILL BE CONSIDERED.

[140] LIMERICK 1 DOCKET 50-352 LER 85-058  
FAILURE TO CHECK DIESEL GENERATOR DAY TANK FOR WATER.  
EVENT DATE: 061185 REPORT DATE: 071185 NSSS: GE TYPE: BWR

(NSIC 196001) ON 6-11-85 THE SURVEILLANCE TEST COORDINATOR DISCOVERED THAT ON 4 OCCASIONS, 2-24; 4-8; 5-16 AND 5-19, 1985, THE D-14 DG WAS OPERATED FOR MORE THAN 1 HR WITHOUT CHECKING FOR ACCUMULATED WATER IN THE DAY TANK AS REQUIRED BY TECH SPEC 4.8.1.1.2.B.1. THIS OVERSIGHT BY UTILITY-LICENSED PERSONNEL IS CONTRARY TO AN APPROVED OPERATING PROCEDURE. THE RESULTS OF COMPLETED MONTHLY SURVEILLANCE TESTS OF THE D-14 DG INDICATE THAT THERE WERE NO ADVERSE CONSEQUENCES AS A RESULT OF THESE EVENTS. OPERATIONS PERSONNEL HAVE BEEN COUNSELED CONCERNING THIS REQUIREMENT. AS CORRECTIVE ACTION, THE D-14 DG SHUTDOWN PROCEDURE HAS BEEN REVISED TO REQUIRE THE PERFORMANCE OF SURVEILLANCE TEST ST-6-092-614-1, 'D-14 DG DAY TANK CHECK FOR WATER, AFTER MORE THAN 1 HR OF OPERATION. THE 'D-14 DG FUEL OIL TRANSFER PUMP, VALVE, AND FLOW TEST' WILL BE REVISED, AS WELL, TO INCLUDE A STATEMENT POINTING OUT THIS REQUIREMENT.

[141] LIMERICK 1 DOCKET 50-352 LER 85-061  
 DEFECTIVE TEMPERATURE SWITCH CAUSES RWCU ISOLATION.  
 EVENT DATE: 062585 REPORT DATE: 071185 NSSS: GE TYPE: BWR  
 VENDOR: RILEY COMPANY, THE - PANALARM DIVISION

(NSIC 196002) ON 6-25-85 AT 1609 WITH UNIT 1 IN COLD SHUTDOWN, I&C PERSONNEL WERE AFFIXING IDENTIFICATION LABELS TO RWCU TEMPERATURE SWITCHES AND WHILE CLOSING THE FACE PLATE OF 1 OF THE SWITCHES, AN ISOLATION SIGNAL WAS GENERATED BY AN ADJOINING TEMPERATURE SWITCH. AS A RESULT OF THIS SIGNAL, THE INBOARD RWCU ISOLATION VALVE CLOSED. DURING THE INVESTIGATION, THE ISOLATION SIGNAL COULD BE DUPLICATED, AND THE SUSPECTED TEMPERATURE SWITCH WAS REMOVED AND TESTED. A SOLDER CONNECTION ON AN INTERNAL COMPONENT OF THE TEMPERATURE SWITCH WAS IDENTIFIED AS BEING DEFECTIVE AND THE NECESSARY REPAIRS WERE MADE. AT THE TIME OF THIS EVENT, THE RWCU SYSTEM WAS BEING USED TO MAINTAIN REACTOR WATER CHEMISTRY AND VESSEL WATER LEVEL. THESE PARAMETERS WERE ESSENTIALLY UNCHANGED BECAUSE THE ISOLATION WAS QUICKLY RESET. THIS LER IS BEING SUBMITTED BECAUSE AN ESP ACTUATION OCCURRED.

[142] LIMERICK 1 DOCKET 50-352 LER 85-064  
 TESTING ERROR CAUSES INADEQUATE ALTERNATE SHUTDOWN COOLING.  
 EVENT DATE: 072485 REPORT DATE: 081385 NSSS: GE TYPE: BWR

(NSIC 195924) ON 7-24-85 AT 0050 HRS, WHILE IN COLD SHUTDOWN, UNIT 1 ENTERED A CONDITION OF NONCOMPLIANCE WITH TECH SPECS 3.4.9.2. TECH SPEC 3.4.9.2A REQUIRES THAT AN ALTERNATE METHOD CAPABLE OF DECAY HEAT REMOVAL BE DEMONSTRATED OPERABLE FOR EACH INOPERABLE RHR LOOP WITHIN 1 HR. THE 'B' RWCU PUMP TRIPPED AT 2350 HRS ON 7-23-85 WITH BOTH RHR SHUTDOWN COOLING LOOPS OUT-OF-SERVICE FOR TESTING AND MAINTENANCE PURPOSES. THE RWCU SYSTEM WAS OPERATING AS AN ALTERNATE METHOD OF DECAY HEAT REMOVAL. FOLLOWING THE 'B' RWCU PUMP TRIP, THE RWCU SYSTEM WAS VENTED AND THE 'B' RWCU PUMP WAS RETURNED TO SERVICE AT 0223 HRS ON 7-24-85. SINCE THE REACTOR HAD NOT OPERATED SINCE 4-17-85 AND MINIMAL DECAY HEAT EXISTED, THERE WERE NO ADVERSE CONSEQUENCES OF THIS EVENT. INVESTIGATION REVEALED THAT THE RWCU SUCTION PIPING HAD BECOME AIRBOUND DURING VALVE REALIGNMENT FOLLOWING A LOCAL LEAK RATE TEST OF THE RHR SHUTDOWN COOLING SUCTION VALVES. IT WAS DETERMINED THAT THE SECTION OF THIS LOCAL LEAK RATE TEST PROCEDURE CONCERNING VALVE REALIGNMENT FOLLOWING COMPLETION OF THE TEST WAS INADEQUATE. THIS PROCEDURE WILL BE REVISED AND OTHER LOCAL LEAK RATE TEST PROCEDURES WILL BE REVIEWED FOR SIMILAR PROBLEMS.

[143] LIMERICK 1 DOCKET 50-352 LER 85-070  
 INEFFECTIVE FIRE SEALS.  
 EVENT DATE: 081485 REPORT DATE: 091385 NSSS: GE TYPE: BWR

(NSIC 196293) ON 8-14 THE FIRE SEAL 763-E009 BETWEEN THE STATIC INVERTER ROOM AND UNIT 1 CABLE SPREADING ROOM WAS DETERMINED TO BE INEFFECTIVE. THE FIRE SEAL WAS EXAMINED DURING INSTALLATION OF A PERMANENT PLANT CABLE THROUGH THE PENETRATION AND VOIDS WERE DISCOVERED IN THE SEAL MATERIAL. THIS TYPE OF FIRE SEAL IS CONSTRUCTED BY PLACING FIBERBOARD SEAL FORMS INSIDE OR AT THE SURFACE OF THE PENETRATION AND COMPLETELY FILLING THE SPACE BETWEEN WITH SILICONE FOAM SEALANT. THE FIBERBOARD SEAL FORMS REMAIN AS PERMANENT PARTS OF THE FIRE SEAL. THE FIRE WATCH ESTABLISHED FOR THE CABLE INSTALLATION WAS CONTINUED AND FIRE SEAL 763-E009 WAS REPAIRED. DURING A SUBSEQUENT INVESTIGATION, 100% OF THE FIRE SEALS OF THE SAME TYPE WERE EXAMINED AND DEFECTS WERE FOUND IN APPROX 54%. THE REPAIRS TO THESE DEFECTIVE FIRE SEALS, APPROX 40, ARE SCHEDULED TO BE COMPLETED BY 10-11-85. THE EIIIS CODE FOR THE AFFECTED SYSTEM IS KP AND THE EIIIS CODE FOR THE DEFECTIVE COMPONENT IS SEAL.

[144] LIMERICK 1 DOCKET 50-352 LER 85-068  
 REACTOR WATER CLEANUP SYSTEM ISOLATES ON HIGH ROOM TEMPERATURE.  
 EVENT DATE: 081685 REPORT DATE: 091185 NSSS: GE TYPE: BWR

(NSIC 196291) ON 8-16 AT 12:52 PM, AN ISOLATION OF THE RWCU SYSTEM INBOARD ISOLATION VALVE, HV-1P001, OCCURRED DUE TO HIGH TEMPERATURE IN THE REGENERATIVE HEAT EXCHANGER ROOM. CAUSE WAS EXCESSIVE HEAT INPUT INTO THE ROOM AS A RESULT OF DUMPING RWCU FLOW TO THE MAIN CONDENSER FOR APPROX 1 HR WITH NO RETURN FLOW TO THE REACTOR THROUGH THE REGENERATIVE HEAT EXCHANGERS COMBINED WITH THE CLOSE PROXIMITY OF THE REGENERATIVE HEAT EXCHANGER ROOM TEMPERATURE SWITCH WITH RESPECT TO THE HEAT EXCHANGERS. THE ISOLATION WAS RESET AND THE RWCU SYSTEM WAS RETURNED TO SERVICE BY 1:55 PM.

[145] LIMERICK 1 DOCKET 50-352 LER 85-069  
 SURVEILLANCE TEST OF 120V AC DISTRIBUTION SYSTEM MISSED.  
 EVENT DATE: 081785 REPORT DATE: 091685 NSSS: GE TYPE: BWR

(NSIC 196292) ON 8-17 AT 1:00 AM, SHIFT SUPERVISION DISCOVERED THAT THE WEEKLY SURVEILLANCE TEST 6-094-450-1 (120V AC SAFEGUARD POWER DISTRIBUTION ALIGNMENT AND VOLTAGE CHECK) HAD EXCEEDED ITS REQUIRED TEST INTERVAL. THE TEST WAS REQUIRED TO BE PERFORMED PRIOR TO 9:00 AM 8-16-85. THE ASSOCIATED 120V AC SYSTEMS WERE DECLARED INOPERABLE AND THE SURVEILLANCE TEST WAS PERFORMED TO NEGATE THE NEED TO IMPLEMENT THE TECH SPEC ACTION STATEMENT. THE SURVEILLANCE TEST WAS COMPLETED SATISFACTORILY AT 2:50 AM AND THE SYSTEM WAS DECLARED OPERABLE, MAKING IT LATE BY 18 HRS IN THE SURVEILLANCE INTERVAL OF 1 WEEK.

[146] LIMERICK 1 DOCKET 50-352 LER 85-071  
 LOOSE TEMPERATURE SWITCH CAUSES RWCU ISOLATION.  
 EVENT DATE: 082485 REPORT DATE: 091985 NSSS: GE TYPE: BWR  
 VENDOR: RILEY COMPANY, THE

(NSIC 196358) ON 8-24-85 AT 0219 WITH UNIT 1 AT 23% POWER, THE RWCU SYSTEM BECAME ISOLATED WHEN THE INBOARD ISOLATION VALVE RECEIVED A SPURIOUS SIGNAL FROM THE DIFFERENTIAL TEMPERATURE SWITCH TDTS-44-1N602E. AN I&C TECHNICIAN WAS INSTALLING TEST EQUIPMENT ON A NEARBY TEMPERATURE SWITCH WHEN THE ISOLATION OCCURRED. THE INVESTIGATION FOUND THE ISOLATION TO BE DUPLICATED BY TOUCHING THE FRONT OF THE SWITCH MODULE. A LOOSE CONNECTION WAS DETERMINED TO BE THE CAUSE OF THE ISOLATION SIGNAL. THE TEMPERATURE SWITCH CONNECTOR WAS CLEANED AND TIGHTENED. THE RWCU SYSTEM WAS RETURNED TO SERVICE BY 0340.

[147] LIMERICK 1 DOCKET 50-352 LER 85-072  
 RWCU VENT VALVE FAILURE CAUSES SMALL SPILL OF REACTOR COOLANT.  
 EVENT DATE: 090785 REPORT DATE: 100785 NSSS: GE TYPE: BWR

(NSIC 196405) ON 9-7-85 AT 1039 THE RWCU SYSTEM ISOLATED AS A RESULT OF HIGH DIFFERENTIAL FLOW BETWEEN THE SYSTEM'S INLET AND OUTLET WHILE VALVING THE 'A' RWCU FILTER/DEMINERALIZER INTO SERVICE. THE HIGH DIFFERENTIAL FLOW DEVELOPED WHEN THE OUTLET VENT VALVE, HV-45-1-07A, DID NOT FULLY CLOSE. SEALS ON 2 FLOW GLASSES IN THE BACKWASH PIPING RUPTURED AND THE REACTOR COOLANT WATER/RESIN MIXTURE WAS RELEASED TO THE RWCU AREA. PRESSURE RELIEF VALVE PSV-45-1-67 OPENED AS A RESULT OF HIGH PRESSURE IN THE BACKWASH LINE AND DISCHARGED RESIN IN THE 'A' HOLD PUMP ROOM. NONE OF THE RADIOACTIVE LIQUID ESCAPED FROM THE FACILITY. THE LIQUID RELEASE TO THE AFFECTED AREAS IS ESTIMATED TO BE 5.06 E+3 MILLICURIES. THE REMOTELY OPERATED MANUAL ISOLATION VALVE UPSTREAM OF THE VENT VALVE WAS CLOSED AND THE ISOLATION SIGNAL RESET. THE 2 FLOW GLASSES WERE REPLACED AND THE RWCU SYSTEM WAS RETURNED TO SERVICE BY 1710. THE MAJORITY OF THE CONTAMINATION WAS CLEANED UP BY 9-18-85.

[148] MAINE YANKEE DOCKET 50-309 LER 85-012  
 FIRE SYSTEM SPRINKLERS ISOLATED WITHOUT PROPER FIRE WATCH.  
 EVENT DATE: 093085 REPORT DATE: 102985 NSSS: CE TYPE: PWR

(NSIC 196439) ON 9-12-85 WHILE THE PLANT WAS IN THE REFUELING SHUTDOWN CONDITION, SPRINKLER SYSTEMS FOR THE TURBINE LUBE OIL RESERVOIR AND THE GENERATOR SEAL OIL SYSTEM WERE ISOLATED. THE SPRINKLER SYSTEMS REMAINED OUT OF SERVICE WHILE FIRE SYSTEM SUPPLY LINES WERE RELOCATED. THE MODIFICATION WAS COMPLETED AND THE SPRINKLER SYSTEMS WERE RETURNED TO SERVICE ON 10-1-85. WHILE THESE SYSTEMS WERE OUT OF SERVICE, BACKUP FIRE SUPPRESSION FOR THE AFFECTED EQUIPMENT WAS PROVIDED. THE TECH SPEC FOR THIS PORTION OF THE FIRE PROTECTION SYSTEM REQUIRES THE ESTABLISHMENT OF HOURLY FIRE WATCHES IN ADDITION TO THE BACKUP FIRE SUPPRESSION EQUIPMENT. AS A RESULT OF PERSONNEL ERROR, THESE FIRE WATCHES HAD NOT BEEN ESTABLISHED. BACKUP EQUIPMENT WAS AVAILABLE, THE SMOKE DETECTION SYSTEMS REMAINED OPERABLE, AND THE AREAS WERE VERY HEAVILY TRAVELED BY MAINTENANCE WORKERS.

[149] MCGUIRE 1 DOCKET 50-369 LER 85-024  
 STANDBY BATTERY CHARGER PLACED IN SERVICE WITHOUT OPERABILITY TEST.  
 EVENT DATE: 081385 REPORT DATE: 090985 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: MCGUIRE 2 (PWR)

(NSIC 196359) ON 7-23-85, IT WAS DETERMINED THAT THE OPERABILITY SURVEILLANCE TEST HAD NOT BEEN PERFORMED ON THE STATION STANDBY BATTERY CHARGER (EVCS). THE STANDBY CHARGER CAN BE ALIGNED TO SUPPLY VITAL LOADS WHEN 1 OF THE 4 NORMAL VITAL CHARGERS IS OUT OF SERVICE. ON 8-13-85, IT WAS FOUND THAT THE STANDBY CHARGER HAD BEEN PLACED IN SERVICE TWICE SUPPLYING VITAL LOADS ON THE CHANNEL 2 AND CHANNEL 4 VITAL BUSES BETWEEN THE PERIOD OF 7-1 THRU 7-15-85. PLACING THE UNTESTED STANDBY BATTERY CHARGER EVCS IN SERVICE VIOLATED TECH SPEC SURVEILLANCE REQUIREMENT 4.8.2.1.2.C4, WHICH REQUIRES THAT AT LEAST ONCE PER 18 MONTHS THE BATTERY CHARGER IS VERIFIED TO SUPPLY AT LEAST 400 AMPERES AT 125V DC FOR AT LEAST 1 HR. THIS INCIDENT IS ATTRIBUTED TO MANAGEMENT/QA DEFICIENCY BECAUSE A REQUIRED SURVEILLANCE SCHEDULE WAS NOT ESTABLISHED FOR TESTING THE STANDBY CHARGER. THE CHARGER OPERATED PROPERLY AND PROVIDED ADEQUATE OUTPUT CURRENT. IF IT HAD FAILED, THE BATTERY WOULD HAVE SUPPLIED POWER UNTIL AN ALTERNATE SOURCE OF POWER WAS CONNECTED.

[150] MCGUIRE 1 DOCKET 50-369 LER 85-027  
 PRESSURIZER HEATER GROUP INOPERABLE WHILE DIESEL GENERATOR WAS INOPERABLE.  
 EVENT DATE: 091185 REPORT DATE: 101185 NSSS: WE TYPE: PWR

(NSIC 196448) ON 9-11-85 AT 0950, THE 1B PRESSURIZER HEATER GROUP WAS DECLARED INOPERABLE WHILE DG 1A WAS INOPERABLE. THIS CONDITION PLACED THE UNIT IN ACTION STATEMENT C OF TECH SPEC 3.8.1.1. HOWEVER, IT WAS NOT REALIZED THAT THE UNIT WAS IN THIS ACTION STATEMENT UNTIL 1925 ON 9-11. DG 1A WAS THEN IMMEDIATELY RETURNED TO OPERABLE STATUS. THIS INCIDENT IS CLASSIFIED AS A PERSONNEL ERROR BECAUSE THE OPERATIONS SHIFT PERSONNEL DID NOT REALIZE THAT THE UNIT WAS IN AN ACTION STATEMENT UNTIL IT BECAME A TECH SPEC VIOLATION. ALL OTHER PRESSURIZER HEATER GROUPS WERE OPERABLE AT THE TIME OF THE INCIDENT. FSAR ANALYSIS ASSUMES PRESSURIZER HEATER UNAVAILABILITY IN ANALYSIS INVOLVING PRESSURIZER PIPE BREAKS.

[151] MCGUIRE 2 DOCKET 50-370 LER 85-019  
 REACTOR TRIP ON TURBINE TRIP DUE TO PROTECTIVE RELAY ACTUATION.  
 EVENT DATE: 071285 REPORT DATE: 081285 NSSS: WE TYPE: PWR

(NSIC 196296) ON 7-12-85 AT 0611, THE UNIT MAIN GENERATOR TRIPPED FROM 100% WHEN BOTH CHANNELS OF THE GENERATOR 'X' PHASE DIFFERENTIAL CURRENT PROTECTIVE DEVICES ACTUATED, APPARENTLY INITIATED BY A GENERATOR INPUT/OUTPUT MISMATCH SIGNAL. THE

CAUSE OF THE DIFFERENTIAL CURRENT TRIP COULD NOT BE DETERMINED UNTIL AFTER THE TURBINE TRIP ON 7-29-85 FROM THE SAME CAUSE. FOLLOWING THE 7-12 TRIP, THE PERMANENT MAGNET EXCITATION GENERATOR WAS FOUND EXTENSIVELY DAMAGED. THE DATA COLLECTED FOLLOWING THE TRIP PROVIDED EVIDENCE THAT THIS FAILURE HAD OCCURRED AFTER THE TRIP. FOLLOWING REPAIR OF THE PERMANENT MAGNET EXCITATION GENERATOR, THE UNIT WAS RESTARTED. ON 7-29-85 AT 0250, THE UNIT 2 MAIN GENERATOR TRIPPED FROM 60% POWER WHEN THE CHANNEL I 'X' PHASE DIFFERENTIAL CURRENT PROTECTIVE DEVICE ACTUATED AS ON 7-12. THE CAUSE OF THIS TRIP WAS FOUND TO BE CRACKED AND MISALIGNED ALUMINUM FLUX SHIELDS ON THE GENERATOR CURRENT TRANSFORMERS. THESE 2 INCIDENTS ARE ATTRIBUTED TO COMPONENT FAILURE/MALFUNCTION BECAUSE BROKEN AND MISALIGNED CURRENT TRANSFORMER FLUX SHIELDS CAUSED ERRONEOUS CURRENT SIGNALS TO BE SENT TO THE PROTECTIVE RELAY DEVICES. ALL DAMAGE HAS BEEN REPAIRED AND EQUIPMENT WILL BE MONITORED AND INSPECTED TO VERIFY REPAIRS. ALL SYSTEMS RESPONDED AS EXPECTED TO THE TRIP.

[152] MCGUIRE 2 DOCKET 50-370 LER 85-020  
 REACTOR TRIP BREAKER OPENED WITHOUT FIRST BLOCKING ESF LOGIC RESULTS IN FEEDWATER ISOLATION.  
 EVENT DATE: 071285 REPORT DATE: 081285 NSSS: WE TYPE: PWR

(NSIC 196246) ON 7-12-85, TWO ESF MAIN FEEDWATER ISOLATION SIGNALS WERE GENERATED. UNIT 2 WAS ALREADY SHUTDOWN SO PLANT OPERATION WAS NOT AFFECTED. PLANT EQUIPMENT RESPONDED CORRECTLY TO THE SIGNALS. THE FIRST ESF SIGNAL OCCURRED WHEN A REACTOR TRIP BREAKER WAS OPENED WITHOUT BLOCKING THE MAIN FEEDWATER ISOLATION SIGNAL. THE SECOND ESF SIGNAL OCCURRED WHEN A REACTOR TRIP BREAKER TRIPPED OPEN DURING TESTING OF THE SOLID STATE PROTECTION SYSTEM. THE UNIT WAS IN MODE 3 (HOT STANDBY) AT THE TIME OF THE EVENTS. THE FIRST ACTUATION IS ATTRIBUTED TO PERSONNEL ERROR BECAUSE A FEEDWATER ISOLATION RESET BUTTON WAS NOT DEPRESSED WHEN A REACTOR TRIP BREAKER WAS OPENED. THE SECOND ACTUATION IS ATTRIBUTED TO PROCEDURAL DEFICIENCY BECAUSE ADEQUATE TEST PREREQUISITES WERE NOT IN PLACE TO PREVENT THE ESF ACTUATION. APPROPRIATE PROCEDURES WILL BE ENHANCED TO MINIMIZE THE CHANCE OF AN INADVERTENT ESF ACTUATION.

[153] MILLSTONE 1 DOCKET 50-245 LER 85-009  
 MAIN STEAM LINE HI-HI RADIATION LEVEL CAUSES REACTOR SCRAM.  
 EVENT DATE: 081385 REPORT DATE: 091285 NSSS: GE TYPE: BWR

(NSIC 196204) ON 8-13-85 AT 1207 HRS, WHILE RETURNING A CONDENSATE DEMINERALIZER TO SERVICE, A REACTOR SCRAM OCCURRED WHICH WAS INITIATED BY MAIN STEAM LINE HI-HI RADIATION. THE CAUSE OF THE SCRAM WAS ATTRIBUTED TO AIR BECOMING ENTRAINED IN THE FEEDWATER SYSTEM WHEN THE DEMINERALIZER WAS PLACED BACK IN SERVICE AFTER A ROUTINE CLEANING PROCESS. THE AIR, AFTER PASSING THROUGH THE REACTOR CORE, WAS DETECTED AS AN INCREASING RADIATION LEVEL BY THE MAIN STEAM LINE RADIATION MONITORS, WHOSE NORMAL FUNCTION IS TO DETECT GROSS FUEL FAILURE. THE TRIP OF THOSE MONITORS ALSO CAUSED A GROUP I CONTAINMENT ISOLATION, WHERE THE MSIV'S SHUT. IN ORDER TO MAINTAIN PRESSURE CONTROL, THE ISOLATION CONDENSER SYSTEM WAS MANUALLY INITIATED AND ROUTINE SCRAM RECOVERY ACTIONS WERE INITIATED BY THE PLANT PERSONNEL. NO OTHER ANOMALIES WERE NOTED SUBSEQUENT TO THE SCRAM.

[154] MILLSTONE 1 DOCKET 50-245 LER 85-013  
 DIESEL GENERATOR/LOW PRESSURE COOLANT INJECTION SEQUENCING DEFECT.  
 EVENT DATE: 082985 REPORT DATE: 090985 NSSS: GE TYPE: BWR  
 VENDOR: COLT INDUSTRIES, INC.

(NSIC 196264) ON 8-29-85 AT 10:13 HRS A DESIGN OVERSIGHT WAS DETECTED, MOST LIKELY TO HAVE OCCURRED DURING INTEGRATING OF THE GAS TURBINE GENERATOR WITH THE LOSS OF NORMAL POWER LOGIC, WHICH MIGHT HAVE CAUSED OVERLOADING OF THE DG. IT WAS SUSPECTED THAT DUE TO LOSS OF NORMAL POWER/LOSS OF COOLANT ACCIDENT AND

FAILURE OF THE S1 BUS, A SIMULTANEOUS START OF THE TWO 500 HP LPCI PUMP MOTORS COULD HAVE OVERLOADED THE DG. THIS WOULD LEAVE MP-1 WITH NO EMERGENCY AC POWER. THROUGH DISCUSSIONS WITH THE MANUFACTURER IT WAS CONCLUDED THAT THE DG WOULD NOT HAVE BEEN OVERLOADED BY THIS CONDITION. THE EXISTING CIRCUITRY WILL BE CORRECTED TO ELIMINATE THIS PROBLEM DURING THE 10-85 REFUELING OUTAGE. EVALUATION OF THE DG AND CIRCUITRY DETERMINED THAT CONTINUED OPERATION WITH THE DEFECT WAS ACCEPTABLE. THE SAFETY FUNCTION PROVIDED BY BOTH THE DG AND THE LPCI SYSTEM CAN STILL BE PERFORMED.

[155] NINE MILE POINT 1 DOCKET 50-220 LER 85-017  
FEEDWATER FLOW CONTROL FAILURE CAUSES REACTOR SCRAM.  
EVENT DATE: 082385 REPORT DATE: 092385 NSSS: GE TYPE: BWR

(NSIC 196203) DURING NORMAL OPERATION ON 8-23-85, A REACTOR SCRAM WAS INITIATED DUE TO REACTOR LOW WATER LEVEL. THE LOW LEVEL SETPOINT WAS REACHED BECAUSE THE NUMBER 11 FEEDWATER FLOW CONTROL VALVE CLOSED REDUCING TOTAL FEEDWATER FLOW. THIS LOW LEVEL AUTOMATICALLY INITIATED THE HPCI MODE OF FEEDWATER AND A REACTOR SHUTDOWN PROCEEDED NORMALLY. THE NUMBER 11 FEEDWATER PUMP WAS UNABLE TO DELIVER FLOW IN THE HPCI MODE OF FEEDWATER DUE TO THE CLOSED VALVE. HOWEVER, THE NUMBER 12 FEEDWATER PUMP ENTERED THE HPCI MODE OF FEEDWATER AS DESIGNED AND RESTORED REACTOR WATER LEVEL TO NORMAL. A WORK REQUEST WAS FOUND TO BE A DETACHED RANGE SPRING AND LOCK SCREW IN THE VALVE POSITIONER. THIS SCREW AND ADDITIONAL HARDWARE WERE REPLACED. THE LOCK SCREW IN THE VALVE POSITIONERS FOR ALL THE FEEDWATER FLOW CONTROL VALVES WAS CHECKED FOR TIGHTNESS AND SECURED TO AVOID RECURRENCE OF THIS TYPE INCIDENT.

[156] NINE MILE POINT 1 DOCKET 50-220 LER 85-015  
DISCOVERY OF THREE CABLE SEPARATION DISCREPANCIES.  
EVENT DATE: 091185 REPORT DATE: 101185 NSSS: GE TYPE: BWR

(NSIC 196378) ON 9-11-85 NIAGARA MOHAWK ENGINEERING, LICENSING, AND SITE PERSONNEL WERE INFORMED OF 3 INSTANCES OF CABLE ROUTING DISCREPANCIES. THE 3 SITUATIONS ARE: 1) CONTROL CABLES FOR CONTAINMENT SPRAY RAW WATER PUMPS 111 AND 112 ARE ROUTED FOR A SHORT DISTANCE IN THE TURBINE BLDG THROUGH THE SAME TRAY AS THE CONTROL CABLES FOR THE HEAT EXCHANGER DISCHARGE VALVES FOR CONTAINMENT SPRAY RAW WATER PUMPS 121 AND 122. (MOV 93-26 AND 93-27). 2) CONTROL CABLES FOR MANUALLY STARTING ALL 4 CORE SPRAY PUMPS ARE IN THE SAME CABLE TRAY IN THE AUX CONTROL ROOM. 3) THE CABLE FEEDING BUS 103 FROM OFFSITE POWER IS ROUTED FOR ABOUT 40 FT ON ELEVATION 250 IN THE TURBINE BLDG, IN THE SAME TRAY AS THE CABLE FEEDING BUS 16B FROM BUS 102. CASE 1 AND 2 ARE ORIGINAL PLANT DESIGN. CASE 3 IS THE RESULT OF A MODIFICATION DONE IN RESPONSE TO BRANCH TECHNICAL POSITION 9.5-1 IN 1980. THE DISCREPANCIES WERE REVIEWED IN DETAIL, INCLUDING A 10CFR21 ANALYSIS, WITH A CONCLUSION THAT NO SIGNIFICANT SAFETY HAZARDS WERE INVOLVED. THE SITUATION WAS DETERMINED TO BE NOT REPORTABLE, BUT BECAUSE THE REPORTABILITY QUESTION WAS NOT CLEAN CUT, A DECISION WAS MADE TO SUBMIT A VOLUNTARY LER, AND READILY INFORM THE RESIDENT INSPECTOR AND THE PROJECT MANAGER. THE SYSTEMS INVOLVED WERE NOT DECLARED INOPERABLE, BUT A STANDING ORDER WAS ISSUED, AND ENGINEERING WORK WAS INITIATED TO RECTIFY THE 3 INSTANCES IN AN EXPEDITIOUS MANNER THROUGH MODIFICATIONS.

[157] NINE MILE POINT 1 DOCKET 50-220 LER 85-012  
INITIATION OF RWCU SYSTEM DUE TO HIGH AREA TEMPERATURE.  
EVENT DATE: 091685 REPORT DATE: 101685 NSSS: GE TYPE: BWR  
VENDOR: WESTON HYDRAULICS DIVISION

(NSIC 196377) ON 9-16-85, THE RWCU SYSTEM ISOLATED DUE TO HIGH AREA TEMPERATURE. THIS WAS THE RESULT OF STEAM LEAKING FROM A GLAND PACKING ON A 1-INCH VENT VALVE FROM THE CLEANUP NONREGENERATIVE HEAT EXCHANGER. THE REACTOR CONTINUED TO

OPERATE NORMALLY AND NO OTHER ESF'S WERE REQUIRED. CORRECTIVE ACTION INVOLVED REPAIRING THE LEAKING VALVE. THE CLEANUP SYSTEM WAS RETURNED TO SERVICE AT 1330 ON 9-17-85.

[158] NORTH ANNA 1 DOCKET 50-338 LER 84-010 REV 1  
 UPDATE ON MOV TORQUE SWITCH SETTING NOT WITHIN SPECIFIED LIMITS.  
 EVENT DATE: 072284 REPORT DATE: 011785 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: NORTH ANNA 2 (PWR)

(NSIC 196421) BASED ON A CONCERN RAISED WITH TORQUE SWITCH SETTINGS AT SURRY POWER STATION AND A REQUEST FROM THE NORTH ANNA RESIDENT NRC INSPECTOR, AN INSPECTION OF THE TORQUE SWITCH SETTINGS OF FIVE UNIT 1 MOTOR OPERATED VALVES WAS CONDUCTED. THE INSPECTION REVEALED THREE OF THESE VALVES HAD TORQUE SWITCH SETTINGS WHICH DIFFERED FROM THOSE SPECIFIED BY THE NORTH ANNA SETPOINT DOCUMENT. IT WAS THEN DECIDED TO CHECK THE TORQUE SWITCH SETTINGS OF THE UNIT 1 AND UNIT 2 SAFETY-RELATED MOTOR-OPERATED VALVES. THESE INSPECTIONS REVEALED APPROXIMATELY HALF THE VALVES INSPECTED HAD TORQUE SWITCH SETTINGS THAT WERE NOT WITHIN THE LIMITS SPECIFIED BY THE NORTH ANNA SETPOINT DOCUMENT. THIS EVENT WAS CAUSED IN PART BY USING SUPERSEDED TORQUE SWITCH SETTINGS WHEN DEVELOPING THE NORTH ANNA SETPOINT DOCUMENT AND CONFUSION WHEN ADJUSTING TORQUE SWITCH SETTINGS BECAUSE OF TORQUE SWITCH DESIGN. CORRECTIVE ACTIONS TAKEN INCLUDE REVISING THE SETPOINT DOCUMENT BASED ON AN ENGINEERING REVIEW OF SETPOINTS AND REVISING PROCEDURES TO INCLUDE LABELED TORQUE SWITCH DIAGRAMS. ALL TECH SPECS AND ASME SECTION XI, SUBSECTION IIV OPERABILITY REQUIREMENTS FOR THE AFFECTED VALVES HAD BEEN MET. THIS LER IS BEING SUBMITTED AS A VOLUNTARY SPECIAL REPORT.

[159] NORTH ANNA 1 DOCKET 50-338 LER 84-022 REV 1  
 UPDATE ON FIRE MAIN PIPE RUPTURE.  
 EVENT DATE: 112784 REPORT DATE: 013085 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: NORTH ANNA 2 (PWR)

(NSIC 196422) ON NOVEMBER 27, 1984, AT 2102 THE NORTH ANNA FIRE PROTECTION SYSTEM 12-INCH MAIN HEADER RUPTURED CAUSING THE SYSTEM TO BE INOPERABLE. THE RUPTURED SECTION OF PIPE SUPPLIES WATER TO TWO TECH SPEC REQUIRED FIRE HOSE STATIONS (TECH SPEC 3.7.14.5, FIRE HOSE STATIONS F-H-1 AND F-H-3). METALLURGICAL ANALYSIS OF THE PIPE SHOWS THAT THE FIRE PROTECTION PIPE FAILED DUE TO BRITTLE FRACTURE RESULTING IN A TWELVE FOOT CRACK IN ONE SECTION OF THE FLANGED PIPING. THE INITIAL CRACK WAS PROBABLY CAUSED BY DIRECT IMPACT FROM A DIRT COMPACTING TOOL DURING PIPE INSTALLATION. A FIRE PROTECTION SYSTEM PRESSURE TRANSIENT COMBINED WITH THE BRITTLENESS OF THE PIPE AND THE INITIAL DEFECT CAUSED FAILURE OF THE 12" DIAMETER MORTAR LINED PIPE.

[160] NORTH ANNA 1 DOCKET 50-338 LER 84-024 REV 1  
 UPDATE ON SURVEILLANCE PROCEDURES NOT PERFORMED.  
 EVENT DATE: 120684 REPORT DATE: 011085 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: NORTH ANNA 2 (PWR)  
 VENDOR: ROBERTSHAW CONTROLS COMPANY  
 WALTER KIDDE & COMPANY, INC.

(NSIC 196423) ON 12-6-84, A QA AUDIT IDENTIFIED 5 PERIODIC TESTS THAT WERE NOT PERFORMED WITHIN THE REQUIRED SURVEILLANCE INTERVALS. THE PROCEDURES ARE: 1-PT-106.3 (WALTER KIDDE HEAT DETECTOR FUNCTIONAL TEST), 1-PT-106.4 (ROBERTSHAW SMOKE DETECTORS - OUTSIDE CONTAINMENT), 1-PT-36.9.1H (DEGRADED VOLTAGE/LOSS OF VOLTAGE FUNCTIONAL TEST - 1H BUS), 1-PT-36.10 (P-4PERMISSIVE VERIFICATION, AND 2-PT-59.3 (HEAT TRACING). THIS INCIDENT WAS CAUSED BY A BREAKDOWN IN COMMUNICATIONS BETWEEN THE ELECTRICAL DEPARTMENT AND THE PERFORMANCE AND TEST DEPARTMENT (PERFORMANCE AND TEST IS RESPONSIBLE FOR PT SCHEDULING). THE SUPERVISOR-PERFORMANCE AND TEST IS PRESENTLY REVIEWING THE PROCESS USED TO TRACK

OVERDUE PT'S. ANY CHANGES TO THE TRACKING PROGRAM WILL BE MADE BASED ON HIS REVIEW. THIS INCIDENT HAS BEEN CLASSIFIED AS A LOSS OF ADMINISTRATIVE CONTROL IN THAT THE PROVISIONS OF TECH SPEC 6.8.1 HAVE NOT BEEN FOLLOWED. TECH SPEC 6.8.1 REQUIRES THE LICENSEE TO ESTABLISH, IMPLEMENT, AND MAINTAIN WRITTEN PROCEDURES FOR SURVEILLANCE AND TEST ACTIVITIES OF SAFETY-RELATED EQUIPMENT. THIS EVENT IS REPORTABLE PURSUANT TO 10 CFR 50.73(A)(2)(I)(B).

[161] NORTH ANNA 1 DOCKET 50-338 LER 84-026 REV 1  
 UPDATE ON FAILED FIRING CARD ALLOWS RODS TO DROP.  
 EVENT DATE: 121884 REPORT DATE: 032585 NSSS: WE TYPE: PWR  
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 196424) ON 12-31-84, AT 0704 A UNIT 1 REACTOR TRIP/TURBINE TRIP OCCURRED. THE TRIP WAS CAUSED BY A FAILED FIRING CARD IN THE ROD CONTROL SYSTEM (EIIIS SYSTEM IDENTIFIER AA) THAT ALLOWED 4 CONTROL RODS TO DROP INTO THE CORE. THE DROPPED CONTROL RODS CAUSED A NEGATIVE FLUX RATE REACTOR TRIP. ALL PLANT PARAMETERS RESPONDED NORMALLY. WHILE TROUBLESHOOTING THE ROD CONTROL SYSTEM WITH ALL RODS WITHDRAWN EXCEPT THE 'D' CONTROL BANK, GROUP 1 OF THE 'B' SHUTDOWN BANK WAS DROPPED. THE REACTOR WAS TRIPPED MANUALLY WHILE IN MODE 3. THE FAILED FIRING CARD WAS REPLACED, A REACTOR START-UP WAS COMMENCED AND CRITICALITY WAS REACHED AT 1650 ON 12-31-84, WITHOUT INCIDENT.

[162] NORTH ANNA 1 DOCKET 50-338 LER 85-009  
 SEISMIC RESPONSE EQUIPMENT FAILS.  
 EVENT DATE: 081385 REPORT DATE: 091985 NSSS: WE TYPE: PWR  
 VENDOR: ENGDAHL ENTERPRISES

(NSIC 196443) ON 8-13-85 DURING PERFORMANCE OF THE UNIT 1 CONTAINMENT MAT TRIAXIAL RESPONSE SPECTRUM RECORDER FUNCTIONAL TEST, THREE EAST-WEST ALARMS FAILED TO ACTUATE AS REQUIRED BY THE SURVEILLANCE TEST. THE UNIT WAS IN MODE 5 (COLD SHUTDOWN) FOR A MAINTENANCE OUTAGE AT THE TIME. THE CAUSE OF THE FAILURE IS UNKNOWN. ON 8-23-85, AFTER UNIT 1 HAD RETURNED TO 100% POWER, GRAPHS OBTAINED FROM TESTING OF THE CONTAINMENT OPERATING LEVEL TRIAXIAL TIME-HISTORY ACCELEROGRAPH COULD NOT BE PROPERLY DECIPHERED DUE TO EXCESSIVE ELECTRICAL NOISE. THE CAUSE OF THE 'NOISE', FOUND ON 2 OUT OF THE 3 CHANNELS, COULD NOT BE DETERMINED. TROUBLESHOOTING AND REPAIRS OF THE ALARMS AND ACCELEROGRAPH WILL BE PERFORMED DURING THE UPCOMING REFUELING OUTAGE SCHEDULED FOR 11-85. THIS SPECIAL REPORT IS SUBMITTED PURSUANT TO TECH SPEC 6.9.2(C).

[163] NORTH ANNA 1 DOCKET 50-338 LER 85-014  
 IMPROPERLY ENCODED KEY CARD RESULTED IN POTENTIAL FOR UNAUTHORIZED ACCESS TO VITAL AREAS.  
 EVENT DATE: 090985 REPORT DATE: 091385 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: NORTH ANNA 2 (PWR)  
 VENDOR: PYROTRONICS

(NSIC 196445) ON 9-9-85 AT 0139 SECURITY PERSONNEL DISCOVERED THAT A STATION EMPLOYEE WITH RESTRICTED CLEARANCE HAD UNAUTHORIZED ACCESS TO CERTAIN STATION VITAL AREAS AS DEFINED BY THE NORTH ANNA SECURITY PLAN. THE EMPLOYEE WAS ISSUED RESTRICTED CLEARANCE BADGE NUMBER 1329 AND THE CORRESPONDING ELECTRONICALLY ENCODED KEY CARD ON 8-2-85. ON 9-9-85 THE KEY CARD WAS DISCOVERED TO BE INCORRECTLY ENCODED BY THE MANUFACTURER AND CONSEQUENTLY COULD HAVE ALLOWED ACCESS TO SEVERAL VITAL AREAS. THIS EVENT IS REPORTABLE PURSUANT TO 10CFR50.73(C). UPON DISCOVERY, SECURITY PERSONNEL ESCORTED THE EMPLOYEE AND SUBSEQUENTLY ISSUED A NEW BADGE NUMBER TO THE EMPLOYEE. SECURITY PERSONNEL ALSO PERFORMED A SEARCH OF THE NORMALLY ACCESSIBLE VITAL AREAS TO WHICH ACCESS COULD HAVE BEEN GAINED VIA THE DEFECTIVE KEY CARD AND ALL WERE FOUND SECURE. IN ORDER TO PREVENT RECURRENCE, ALL CURRENTLY ISSUED AND NEW UNISSUED KEY CARDS WERE

CHECKED FOR CORRECT ENCODING, OF WHICH ONE ISSUED KEY CARD AND THREE UNISSUED KEY CARDS WERE FOUND INCORRECTLY ENCODED. THE ISSUED KEY CARD HOWEVER WOULD NOT HAVE ALLOWED ACCESS TO ANY VITAL AREAS. IN THE FUTURE, NEW KEY CARDS WILL BE CHECKED UPON ARRIVAL FROM THE MANUFACTURER.

[164] NORTH ANNA 1 DOCKET 50-338 LER 85-011  
 INOPERABLE EMERGENCY DIESEL GENERATOR CAUSES FORCED SHUTDOWN.  
 EVENT DATE: 092185 REPORT DATE: 101685 NSSS: WE TYPE: PWR  
 VENDOR: COLT INDUSTRIES, INC.

(NSIC 196444) AT 0716 ON 9-18-85 THE 1J EMERGENCY DG WAS REMOVED FROM SERVICE TO PERFORM SCHEDULED MAINTENANCE. MAINTENANCE WAS COMPLETED AND THE EDG WAS STARTED AT 2158 ON 9-18-85 TO PROVE OPERABILITY. AT 2250 ON 9-18-85, THE 1J EDG TRIPPED ON HIGH CRANKCASE PRESSURE. AN INVESTIGATION DETERMINED THE HIGH CRANKCASE PRESSURE HAD BEEN CAUSED BY A CRACKED CYLINDER LINER. THE CYLINDER LINER WAS REPLACED. IN ADDITION, AN INSPECTION OF THE UPPER AND LOWER PISTONS DETERMINED MOST OF THE PISTONS EXHIBITED WEAR. ALL UPPER AND LOWER PISTONS WERE REPLACED. SINCE REPAIRS TO THE 1J EMERGENCY DG COULD NOT BE COMPLETED WITHIN THE 72 HR TIME LIMIT SPECIFIED IN TECH SPECS, A UNIT RAMPDOWN FROM 100% POWER WAS COMMENCED AT 0716 ON 9-21-85. A NOTIFICATION OF UNUSUAL EVENT WAS DECLARED BECAUSE OF THE FORCED SHUTDOWN. THIS EVENT IS REPORTABLE PURSUANT TO 10 CFR 50.73(A)(2)(I)(A). THE UNIT WAS PLACED IN COLD SHUTDOWN AT 1803 ON 9-22-85. THE 1J EDG WAS DECLARED OPERABLE AT 2356 ON 9-22-85. THE UNIT WAS PLACED ON LINE AT 2337 ON 9-23-85. THROUGHOUT THIS EVENT, 2 INDEPENDENT OFFSITE POWER SUPPLY CIRCUITS WERE OPERABLE AND THE REDUNDANT EMERGENCY DG WAS OPERABLE.

[165] NORTH ANNA 2 DOCKET 50-339 LER 84-008 REV 1  
 UPDATE ON LOSS OF RHR.  
 EVENT DATE: 101684 REPORT DATE: 011085 NSSS: WE TYPE: PWR  
 VENDOR: GRINNELL CORP.

(NSIC 196425) ON 10-16-84, WITH NORTH ANNA UNIT 2 IN MODE 5 A COMPLETE LOSS OF RHR CAPABILITY OCCURRED WHEN BOTH RHR PUMPS WERE UNABLE TO OPERATE DUE TO THE INTRODUCTION OF AIR INTO THE RHR SYSTEM. THE INCIDENT OCCURRED DURING THE DRAIN DOWN OF THE RCS, WHEN THE LEVEL OF THE RCS WAS BEING MONITORED VIA A STANDPIPE OFF THE CENTERLINE OF ONE OF THE RCS LOOPS. THE ISOLATION VALVE TO WHICH THE STANDPIPE WAS ATTACHED BECAME CLOGGED SOMETIME DURING THE DRAIN DOWN AND FALSELY INDICATED 64 INCHES ABOVE CENTERLINE WHEN IN FACT THE LEVEL WAS BELOW THE RHR SUCTION LINE (BELOW CENTERLINE). SUBSEQUENTLY, LETDOWN FROM THE RCS WAS ISOLATED AND MAKEUP INITIATED. RHR CAPABILITY WAS REGAINED 2 HRS AFTER INITIATION OF THE EVENT. RCS LEVEL INDICATION WAS MOVED TO AN ALTERNATE TAP OFF LOOP CENTERLINE AND INDICATED SATISFACTORILY.

[166] OCONEE 1 DOCKET 50-269 LER 85-011  
 SETPOINT DRIFT OF TWO CONDENSER VACUUM PRESSURE SWITCHES.  
 EVENT DATE: 072385 REPORT DATE: 081985 NSSS: BW TYPE: PWR  
 OTHER UNITS INVOLVED: OCONEE 2 (PWR)  
 OCONEE 3 (PWR)  
 VENDOR: BAILEY METER COMPANY

(NSIC 196213) ON JULY 23, 1985 AT 1300 HOURS, THE INTERIM RADWASTE BUILDING (IRB) VENTILATION EXHAUST EFFLUENT FLOW RATE MONITOR (EEFRM) WAS DECLARED INOPERABLE DUE TO AN OUT OF CALIBRATION CONDITION OF THE INSTRUMENT TRANSMITTER. THE OUT OF CALIBRATION CONDITION HAD EXISTED SINCE APRIL 3, 1985 WITHOUT FULL TECH SPEC COMPENSATORY ACTION BEING TAKEN. THE RESULT WAS A VIOLATION OF TECH SPEC 3.5.5.2. DURING THE INVESTIGATION OF THIS EVENT, IT WAS DISCOVERED THAT THE IRB EEFRM WAS TECHNICALLY INOPERABLE SINCE FEBRUARY 29, 1984 BECAUSE THE DAILY SURVEILLANCE REQUIREMENT HAD NOT BEEN MET. THIS IS A VIOLATION OF TECH SPEC

4.1.4. THIS INCIDENT IS ASSIGNED A CATEGORY E MANAGEMENT/QUALITY ASSURANCE DEFICIENCY BECAUSE A DEFINITIVE PROGRAM TO ENSURE APPROPRIATE SURVEILLANCE AND COMPENSATORY ACTIONS PURSUANT TO TECH SPEC 4.1.4 AND TECH SPEC 3.5.5 WAS NOT IN PLACE. THE IMMEDIATE CORRECTIVE ACTION WAS TO ESTIMATE THE IRB EXHAUST FLOW RATE AT LEAST ONCE PER 4 HOURS. THE SUPPLEMENTAL CORRECTIVE ACTIONS RETURNED THE IRB EXHAUST EFFLUENT MONITORING INSTRUMENTATION TO SERVICE.

[167] OYSTER CREEK DOCKET 50-219 LER 85-014  
 LOW OIL IN UNIT SUBSTATION TRANSFORMERS 1A2 AND 1B2.  
 EVENT DATE: 080985 REPORT DATE: 091185 NSSS: GE TYPE: BWR  
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 196200) AS A RESULT OF PREVENTIVE MAINTENANCE TESTING FOR POTENTIAL HOT SPOTS ON SWITCHGEAR CONNECTIONS, INFRARED SCANNING WAS PERFORMED THAT INDICATED UNEVEN HEAT DISTRIBUTION IN 1 STATION TRANSFORMER. FURTHER TESTING INDICATED THAT 2 UNIT SUBSTATION TRANSFORMERS (1A2 AND 1B2) DID NOT HAVE SUFFICIENT COOLING OIL. BOTH TRANSFORMERS WERE CONSIDERED TO BE IN A DEGRADED MODE SINCE THE TRANSFORMERS MAY NOT HAVE BEEN ABLE TO PERFORM THEIR INTENDED FUNCTION DURING AN EMERGENCY CONDITION. PLANT SHUTDOWN WAS INITIATED AND THE REACTOR WAS PLACED IN COLD SHUTDOWN IN ACCORDANCE WITH TECH SPECS. REPLACEMENT OIL WAS PROCURED AND THE REQUIRED AMOUNT ADDED. THE PLANT WAS RETURNED TO NORMAL OPERATION WITHOUT INCIDENT.

[168] OYSTER CREEK DOCKET 50-219 LER 85-016  
 OPERATOR ERROR DURING SHUTDOWN CAUSES REACTOR SCRAM.  
 EVENT DATE: 080985 REPORT DATE: 090585 NSSS: GE TYPE: BWR

(NSIC 196201) DURING A PLANT SHUTDOWN ON 8-9-85, THE REACTOR SCRAMMED ON COINCIDENT SIGNALS OF AVERAGE POWER RANGE MONITORS (APRM'S) DOWNSCALE AND INTERMEDIATE RANGE MONITORS (IRM'S) HI-HI. THE REACTOR SCRAMMED PROPERLY, ALL PLANT SYSTEMS RESPONDED AS REQUIRED, AND OPERATORS TOOK ACTIONS TO STABILIZE THE REACTOR. THE CAUSE OF THIS EVENT HAS BEEN DETERMINED TO BE OPERATOR ERROR BY THE INADVERTENT INSERTION OF ALL 8 IRM'S SIMULTANEOUSLY WITH THE APRM'S DOWNSCALE. THE IRM OPERATING PROCEDURE FOR PLANT SHUTDOWN HAS BEEN REVISED AND THE IRM DRIVE SELECT SWITCH WILL BE RELABELED IN ORDER TO PRECLUDE A SIMILAR EVENT IN THE FUTURE.

[169] OYSTER CREEK DOCKET 50-219 LER 85-019  
 MAIN STEAM FLOW SENSOR SETPOINT INCORRECTLY CALCULATED.  
 EVENT DATE: 082185 REPORT DATE: 092085 NSSS: GE TYPE: BWR

(NSIC 196202) A DISCREPANCY WAS IDENTIFIED IN THE ESTABLISHED SETPOINTS OF THE MAIN STEAM LINE HIGH FLOW DETECTORS (RE-22) IN A NON-CONSERVATIVE DIRECTION. WHILE TROUBLESHOOTING A LOW INDICATION PROBLEM WITH RE-22F, BASELINE CALCULATIONS WERE MADE FOR STEAM FLOW VS. DIFFERENTIAL PRESSURE PROVIDED BY THE MAIN STEAM FLOW VENTURIS WHICH CONFLICTED WITH THE EXISTING CALCULATION 97.5 PSID = 120% STEAM FLOW (TECH SPEC LIMIT) AS RECORDED IN STANDING ORDER #1, 'INSTRUMENT SETPOINTS'. TECHNICAL FUNCTIONS DIVISION PERFORMED AN INDEPENDENT REVIEW OF THE CALCULATIONS, WHICH CONCURRED THAT A DISCREPANCY EXISTED AND DOCUMENTED THE CORRECT VALUES. THE CORRECT PSID EQUIVALENT OF 120% STEAM FLOW WAS CALCULATED TO BE 96.5 PSID. ON 1-24-85, RE-22 SENSORS C AND E SETPOINTS EXCEEDED THE PREVIOUS TECH SPEC EQUIVALENT LIMIT OF 97.5 PSID BUT WERE NOT REPORTABLE UNDER THE REPORTING CRITERIA OF 10 CFR 50.73. BY THE EQUIVALENT NEW TECH SPEC LIMIT OF 96.5 PSID, RE-22 SENSOR B, G, AND H SETPOINTS ADDITIONALLY EXCEEDED THE TECH SPEC LIMIT FOR THE SAME DATE AND CAUSED THIS SURVEILLANCE TO BECOME REPORTABLE.

[170] PALISADES  
INOPERABLE ESP COMPONENTS.

DOCKET 50-255

LER 85-009

EVENT DATE: 072885 REPORT DATE: 082885  
VENDOR: FISCHER & PORTER CO.

NSSS: CE

TYPE: PWR

VIKING INDUSTRIES

(NSIC 196268) A RECURRING FAILURE OF A HPSI FLOW TRANSMITTER OCCURRED SUCH THAT A SHUTDOWN WAS INITIATED IN ACCORDANCE WITH TECH SPECS ON 7-27 AND 8-1-85. THE TRANSMITTER WAS EVENTUALLY REPLACED WITH A SPARE INSTRUMENT. A LOSS OF INTERNAL DAMPING FLUID WAS IDENTIFIED AS THE CAUSE OF A GRADUAL ZERO DRIFT IN THE TRANSMITTER. A FAILED OSCILLATOR AMPLIFIER MAY HAVE BEEN INVOLVED. SINCE THE SPECS FOR THE FLOW INSTRUMENTS ARE MORE RESTRICTIVE THAN THE HPSI PUMPS AND NO CREDIT IS TAKEN FOR THESE INSTRUMENTS IN ANY ACCIDENT ANALYSIS, REMOVAL OF THE HPSI FLOW INDICATION REQUIREMENT FROM TECH SPEC HAS BEEN REQUESTED FROM THE DIRECTOR, NUCLEAR REACTOR REGULATION. ON 7-28-85, CV-3069, AN SIS ACTUATED VALVE, FAILED TO CLOSE. THE VALVE WAS OPENED TO ALLOW A FLOW TEST OF THE HPSI FLOW TRANSMITTER. CONCURRENTLY, A SAFETY INJECTION TANK LOW LEVEL OCCURRED DUE TO LEAKAGE THROUGH A FILL AND DRAIN VALVE AND SUBSEQUENTLY THROUGH CV-3069. A SHUTDOWN WAS INITIATED IN ACCORDANCE WITH TECH SPEC. CV03 WAS CLOSED BY DISCONNECTING THE AIR SUPPLY. THE SIT LEVEL WAS RESTORED. ON 8-1 WITH THE HPSI FLOW TRANSMITTER INOPERABLE, AN SIT LOW LEVEL OCCURRED AGAIN DUE TO LEAKAGE THROUGH FILL AND DRAIN VALVES. THE CONCURRENTLY INOPERABLE SIT AND FLOW TRANSMITTER REQUIRED INITIATION OF A SHUTDOWN IN ACCORDANCE WITH TECH SPEC. THE SIT LEAKAGE THROUGH THE FILL AND DRAIN VALVES HAS BEEN A RECURRING PROBLEM. REPAIRS ARE PLANNED DURING THE NEXT REFUELING OUTAGE.

[171] PALISADES  
PRESSURE TRANSMITTER CALIBRATION ERROR.

DOCKET 50-255

LER 85-018

EVENT DATE: 091485 REPORT DATE: 101085

NSSS: CE

TYPE: PWR

(NSIC 196269) ON 9-14-85 WITH THE PLANT IN HOT STANDBY, A CALIBRATION CHECK DETERMINED THAT 7 PRESSURIZER PRESSURE TRANSMITTERS WERE OUTSIDE OF THE REQUIRED CALIBRATION RANGE. THEREFORE, THE TRANSMITTERS AND THE RPS HIGH PRESSURE CHANNELS WERE CONSIDERED INOPERABLE. SUBSEQUENTLY, THE TRANSMITTERS WERE SATISFACTORILY CALIBRATED AND DECLARED OPERABLE. EVALUATION OF THIS OCCURRENCE DETERMINED THAT AN ERROR HAD OCCURRED DURING A PRIOR CALIBRATION OF THESE INSTRUMENTS ON 8-27-85. THE ERROR RESULTED FROM A MISCOMMUNICATION OF THE EQUIVALENT PRESSURE TO BE USED FOR CERTAIN WEIGHTS ON A DEAD WEIGHT PRESSURE TESTER. THE PRACTICE OF CORRELATING EQUIVALENT PRESSURES TO DEAD WEIGHTS WILL BE REVIEWED. ADEQUATE CONTROLS WILL BE IMPOSED TO PREVENT FURTHER CORRELATION ERRORS. AN EVALUATION OF THIS OCCURRENCE DETERMINED THE RESULTANT ERRORS TO BE WITHIN THE ASSUMPTIONS OF THE SAFETY ANALYSIS.

[172] PALISADES

DOCKET 50-255

LER 85-019

SURVEILLANCE TEST DEFICIENCY RESULTS IN FAILURE TO TEST ALL ACTUATION LOGIC FOR CONTAINMENT ISOLATION.

EVENT DATE: 093085 REPORT DATE: 103085

NSSS: CE

TYPE: PWR

(NSIC 196434) ON 9-30-85 WITH THE PLANT AT POWER, A REVIEW OF TECH SPECS SURVEILLANCE TEST PROCEDURES IDENTIFIED A DEFICIENCY IN A TECH SPEC SURVEILLANCE TEST. THIS DEFICIENCY WAS THE FAILURE TO FULLY VERIFY THAT CONTAINMENT ISOLATION WOULD INITIATE AS A RESULT OF A CONTAINMENT HIGH RADIATION SIGNAL. THEREFORE, A SHUTDOWN WAS COMMENCED IN ACCORDANCE WITH TECH SPECS. SUBSEQUENT TESTS WERE PERFORMED SATISFACTORILY AND FULL POWER OPERATION WAS RESUMED. THE SURVEILLANCE TEST DEFICIENCY WAS A RESULT OF AN INADEQUATE TECHNICAL REVIEW. SINCE THIS DEFICIENCY WAS FOUND DURING A SELF INITIATED REVIEW AND IS CONSIDERED AN ISOLATED CASE, NO FURTHER ACTION IS CONSIDERED NECESSARY. SUBSEQUENT TO THE IDENTIFICATION OF THIS DEFICIENCY, SATISFACTORY TESTS WERE PERFORMED TO VERIFY SYSTEM OPERABILITY. THEREFORE, NO ADDITIONAL RISK RESULTED FROM THIS OCCURRENCE.

[173] PALO VERDE 1 DOCKET 50-528 LER 85-073  
 FAILURE TO DETERMINE REACTOR COOLANT FLOWRATE DURING MODE CHANGE.  
 EVENT DATE: 060685 REPORT DATE: 102885 NSSS: CE TYPE: PWR

(NSIC 196454) ON 9-15-85 PALO VERDE 1 WAS IN MODE 2 PREPARING TO GO TO MODE 1. AT 1745 DURING THE PERFORMANCE OF THE ROUTINE SURVEILLANCE MODES 1-4 LOGS PROCEDURE, 41ST-1ZZ18, THE STEP DETERMINING RCS FLOWRATE WAS SIGNED OFF AS NOT APPLICABLE. (PROCEDURE 41ST-1ZZ18 IS REQUIRED TO BE PERFORMED BY THE MODE CHANGE CHECKLIST PROCEDURE, 410P-1ZZ11.) THIS WAS NOT IN ACCORDANCE WITH TECH SPECS 3.0.4 AND 4.0.4 WHICH SPECIFY THAT THE SURVEILLANCE REQUIREMENTS ASSOCIATED WITH THE LCO BE PERFORMED PRIOR TO ENTERING AN OPERATIONAL MODE. RCS FLOWRATE IS REQUIRED BY TECH SPEC 4.2.5. THIS EVENT WAS DISCOVERED ON 9-26-85, BY THE SURVEILLANCE TEST PROCEDURE GROUP DURING THE RECENTLY INITIATED PROGRAM OF REVIEWING COMPLETED SURVEILLANCE PROCEDURES. UPON FURTHER INVESTIGATION, IT WAS FOUND THAT THE RCS FLOWRATE DETERMINATION WAS ALSO MISSED IN THE SURVEILLANCES PERFORMED ON 6-6-85, AND 7-5-85. IN EACH INSTANCE, THE RCS FLOWRATE WAS VERIFIED TO BE SATISFACTORY BY THE COMPLETION OF 41ST-1ZZ18. THIS PROCEDURE WAS PERFORMED ON 6-6-85, AT 1842, ON 7-5-85, AT 1914, AND ON 9-16-85 AT 0520, RESPECTIVELY. OPERATIONS PERSONNEL WERE COUNSELED ON THE PROPER PERFORMANCE OF THIS SURVEILLANCE AND PROCEDURE 41ST-1ZZ18 WAS CHANGED TO PROVIDE AN APPROVED ALTERNATE METHOD FOR DETERMINING RCS FLOWRATE.

[174] PALO VERDE 1 DOCKET 50-528 LER 85-019  
 FAILURE OF FEEDWATER MINI-FLOW CONTROL VALVE.  
 EVENT DATE: 061485 REPORT DATE: 071585 NSSS: CE TYPE: PWR  
 VENDOR: FISHER CONTROLS CO.  
 LESLIE CO.

(NSIC 196255) ON 6-14-85, THE 'B' MAIN FEEDWATER PUMP WAS RUNNING IN MANUAL, SUPPLYING FEEDWATER TO THE SG'S AND A REACTOR OPERATOR WAS IN THE PROCESS OF STARTING THE 'A' MAIN FEEDWATER PUMP PER PROCEDURE 410P-1FT01. THE 'A' MAIN FEEDWATER PUMP MINI-FLOW CONTROL VALVE DID NOT PROPERLY CONTROL THE FLOW, ALLOWING EXCESSIVE CONDENSATE FLOW BACK TO THE CONDENSER. THIS, IN CONJUNCTION WITH IMPROPER OPERATION OF CONDENSATE PUMP MINI-FLOW CONTROL VALVES, CAUSED A LOW SUCTION PRESSURE TRIP OF THE 'B' MAIN FEEDWATER PUMP AT 1155. THE REACTOR OPERATORS MANUALLY TRIPPED THE TURBINE-GENERATOR, STARTED AUX FEEDWATER, AND BEGAN MANUALLY REDUCING REACTOR POWER BY INSERTION OF CEA'S. AT 1156 THE REACTOR TRIPPED ON HIGH PRESSURIZER PRESSURE. FOLLOWING THE REACTOR TRIP, THE 'C' CONDENSATE PUMP TRIPPED ON LOW RECIRCULATION FLOW BECAUSE IT'S MINI-FLOW CONTROL VALVE DID NOT OPEN SUFFICIENTLY. A SLIGHT OVERCOOLING OCCURRED AFTER THE TRIP DUE TO EXCESSIVE STEAM DEMAND CREATED BY THE FLOW THROUGH THE MAIN STEAM LINE DRAINS AND AUX STEAM LOADS. CAUSE OF THE TRIP WAS IMPROPER OPERATION OF THE 'A' MAIN FEEDWATER PUMP MINI-FLOW CONTROL VALVE. THE MAIN FEEDWATER PUMP AND CONDENSATE PUMP MINI-FLOW CONTROL VALVES ARE BEING REPAIRED TO CORRECT THEIR OPERATION. THE MAIN STEAM LINE DRAIN VALVE OPERATION IS BEING EVALUATED TO DETERMINE IF IT IS NECESSARY THAT VALVES OPEN IMMEDIATELY FOLLOWING A TRIP. FLOW RATES ARE BEING EVALUATED FOR CONFORMANCE TO DESIGN.

[175] PALO VERDE 1 DOCKET 50-528 LER 85-048  
 ECCS THROTTLE VALVES OPERABILITY NOT TESTED.  
 EVENT DATE: 081985 REPORT DATE: 091885 NSSS: CE TYPE: PWR

(NSIC 196411) AT 1500 ON AUGUST 19, 1985, THE UNIT 1 SHIFT SUPERVISOR DECLARED BOTH EMERGENCY CORE COOLING SYSTEM (ECCS) (BQ, BP) SUBSYSTEMS INOPERABLE DUE TO NONCOMPLIANCE WITH SURVEILLANCE REQUIREMENT 4.5.2.G.1. THIS SPECIFICATION REQUIRES THAT THE POSITION OF THE ELECTRICAL STOPS OF THE ECCS THROTTLE VALVES BE VERIFIED TO BE CORRECT WITHIN FOUR HOURS FOLLOWING ANY VALVE STROKING OPERATION. THIS REQUIREMENT HAD NOT BEEN SATISFIED FOLLOWING VARIOUS VALVE STROKING EVOLUTIONS SINCE INITIAL ENTRY INTO MODE 4 (HOT SHUTDOWN) ON APRIL 21, 1985. AT

THE TIME THIS CONDITION WAS DISCOVERED, UNIT 1 WAS IN MODE 3 (HOT STANDBY). THE SHIFT SUPERVISOR INITIATED LCO 3.0.3 AT 1550 ON AUGUST 19, 1985. UNIT 1 ENTERED MODE 4 AT 2149 ON AUGUST 19, 1985, AND EXITED LCO 3.0.3 AT THAT TIME. A TEMPORARILY APPROVED CHANGE TO THE APPROPRIATE PROCEDURE WAS INITIATED TO PERMIT THE REQUIRED TESTING OF THE ECCS THROTTLE VALVES. SUBSEQUENT TESTING, WITH THE UNIT IN MODE 4, VERIFIED THAT ALL OF THE ECCS THROTTLE VALVES ASSUMED THE CORRECT POSITION WHEN OPENED ELECTRICALLY FROM THE CLOSED POSITION. CORRECTIVE ACTIONS WILL INCLUDE A PERMANENT REVISION TO THE APPROPRIATE SURVEILLANCE PROCEDURE TO INCLUDE THE NECESSARY TESTING AND AN APPROPRIATE MODIFICATION TO PROCEDURES THAT ADDRESS ECCS THROTTLE VALVE STROKING (E.G., SHUTDOWN COOLING).

[176] PALO VERDE 1 DOCKET 50-528 LER 85-072  
FAILURE TO SAMPLE GASEOUS RADWASTE DURING DEGASSING OF PRIMARY COOLANT.  
EVENT DATE: 091385 REPORT DATE: 101685 NSSS: CE TYPE: PWR

(NSIC 196309) ON 9-13-85 PALO VERDE 1 WAS IN MODE 3 WHEN THE PLANT WAS OPERATED IN A CONDITION PROHIBITED BY THE TECH SPECS. THE TECH SPECS REQUIRE SAMPLING OF THE GASEOUS RADWASTE SYSTEM EITHER CONTINUOUSLY BY THE EXPLOSIVE GAS MONITOR, OR MANUALLY EVERY 4 HRS DURING DEGASSING OPERATIONS AND DAILY DURING SYSTEM OPERATION. AT APPROX 1411 ON 9-13, DEGASSING OF THE REACTOR COOLANT SYSTEM WAS INITIATED; HOWEVER, AUTOMATIC SAMPLING OF THE GASEOUS RADWASTE SYSTEM WAS NOT AVAILABLE, AND MANUAL SAMPLING WAS NOT ACCOMPLISHED UNTIL APPROX 2330. THE CAUSE OF THIS EVENT WAS INADEQUATE ASSURANCE THAT ALL TECH SPEC REQUIREMENTS FOR OPERATION OF THE GAS STRIPPER WERE COMPLIED WITH PRIOR TO ITS OPERATION. THE OPERATORS ON-SHIFT DID NOT ENSURE THAT THE CHEMISTRY TECHNICIANS WERE PERFORMING THE NECESSARY SURVEILLANCES. CORRECTIVE ACTIONS WILL INCLUDE APPROPRIATE PROCEDURAL CHANGES AND IMPLEMENTATION OF A DESIGN CHANGE TO ALLOW OPERATION OF THE AUTOMATIC SAMPLING SYSTEM.

[177] PALO VERDE 1 DOCKET 50-528 LER 85-062  
SPURIOUS RADIATION MONITOR SIGNAL CAUSES AUTOMATIC ACTUATION OF CONTROL ROOM ESSENTIAL FILTRATION.  
EVENT DATE: 091985 REPORT DATE: 101885 NSSS: CE TYPE: PWR

(NSIC 196412) ON SEPTEMBER 19, 1985, AT 0131, PALO VERDE UNIT 1 WAS IN MODE 3. AN AUTOMATIC ACTUATION OF THE CONTROL ROOM ESSENTIAL FILTRATION ACTUATION SIGNAL (CREPAS) (JE) OCCURRED DUE TO A HIGH RADIATION ALARM ON THE CONTROL ROOM VENTILATION RADIATION MONITORING UNIT (IL). ALL EQUIPMENT OPERATED AS DESIGNED; THEREFORE, THERE WERE NO SAFETY IMPLICATIONS. THE CONTROL ROOM VENTILATION SYSTEM WAS SAMPLED BY RADIATION PROTECTION; THE SAMPLE INDICATED AN ACTIVITY OF 1.83 E-10 MICROCURIES PER MILLILITER. A SIMILAR INCIDENT WAS REPORTED IN LER 528/85-064. THE ALARM WAS DUE TO RANDOM NOISE ON THE INSTRUMENT GROUND BUS. OPERATIONS ENGINEERING IS CONTINUING AN INVESTIGATION TO IDENTIFY THE CAUSE OF THE NOISE. A SUPPLEMENT WILL BE SUBMITTED WHEN INFORMATION IS AVAILABLE AS A RESULT OF THE INVESTIGATION.

[178] PALO VERDE 1 DOCKET 50-528 LER 85-046  
CONTINUOUS FIRE WATCH REQUIREMENT NOT MET.  
EVENT DATE: 093085 REPORT DATE: 103085 NSSS: CE TYPE: PWR

(NSIC 196453) ON 9-30-85 A CONTINUOUS FIRE WATCH AS REQUIRED BY TECH SPEC 3.7.11.2 ACTION A WAS MISTAKENLY DISCONTINUED FOR A PERIOD OF 18 MINS BETWEEN 0900 AND 0918. TECH SPEC 3.7.11.2 ACTION A REQUIRES A CONTINUOUS FIRE WATCH IN THE MAIN STEAM SUPPORT STRUCTURE WHEN THE FIRE PROTECTION SPRINKLER SYSTEM IS INOPERABLE. THE SPRINKLER SYSTEM WAS INOPERABLE DUE TO A VALVE BEING ISOLATED FOR REPAIRS. TO PREVENT RECURRENCE, NIGHT ORDERS WILL BE SENT TO THE SHIFT SUPERVISORS DIRECTING THEM TO REVIEW TECH SPEC 3.7.11.2 AND THE ASSOCIATED ACTIONS. THE NIGHT ORDERS WILL ALSO REMIND THE SHIFT SUPERVISORS TO CHECK THE

FIRE PROTECTION TECH SPEC COMPONENT CONDITION RECORD FORMS BEFORE DIRECTING SECURITY TO REMOVE OFFICERS FROM DOOR WATCHES.

[179] PEACH BOTTOM 2 DOCKET 50-277 LER 85-011  
MAIN TURBINE CONTROL VALVE TESTING CAUSES REACTOR SCRAM.  
EVENT DATE: 080585 REPORT DATE: 090385 NSSS: GE TYPE: BWR

(NSIC 196215) ON AUGUST 5, 1985, A FULL SCRAM OCCURRED DURING MAIN TURBINE CONTROL VALVE SURVEILLANCE TESTING. FOLLOWING THE SCRAM, A REACTOR WATER LEVEL TRANSIENT RESULTED IN GROUP II AND GROUP III ISOLATIONS. CAUSE OF THE EVENT WAS A MOMENTARY DECREASE IN RELAYED EMERGENCY TRIP SYSTEM (RETS) OIL PRESSURE IN CONJUNCTION WITH THE SETPOINT DRIFT OF THE PRESSURE SWITCH THAT MONITORS OIL PRESSURE AT THE RETS SUPPLY TO THE NO. 4 MAIN TURBINE CONTROL VALVE. NORMAL REACTOR LEVEL WAS RESTORED BY THE FEEDWATER CONTROL SYSTEM. THE FULL SCRAM AND THE GROUP II AND III ISOLATION SIGNALS WERE RESET AND AFFECTED SYSTEMS WERE RETURNED TO NORMAL OPERATION.

[180] PEACH BOTTOM 2 DOCKET 50-277 LER 85-014  
FEEDWATER CONTROL FAILURE AND OPERATOR ERROR CAUSE REACTOR SCRAM.  
EVENT DATE: 082085 REPORT DATE: 092485 NSSS: GE TYPE: BWR  
VENDOR: LEEDS & NORTHRUP CO.

(NSIC 196275) ON 8-20 A SCRAM SIGNAL AND A GROUP II AND GROUP III ISOLATION OCCURRED DUE TO A REACTOR LOW WATER LEVEL SIGNAL. BECAUSE UNIT 2 WAS SHUTDOWN, NO CONTROL ROD MOVEMENT OCCURRED. THE 'C' REACTOR FEEDWATER PUMP STARTUP BYPASS VALVE WAS BEING USED TO AUTOMATICALLY CONTROL REACTOR WATER LEVEL. OSCILLATIONS IN THE LEVEL HAD BEEN OCCURRING WHICH WERE NOT ADEQUATELY CONTROLLED BY THE OPERATOR AND LEAD TO THE SCRAM. FOLLOWING THE SCRAM AND ISOLATIONS, THE BYPASS VALVE WAS USED MANUALLY TO RECOVER AND CONTROL REACTOR LEVEL. THE CONTROLLER WAS LATER TUNED TO PROVIDE BETTER RESPONSE AND WAS DEMONSTRATED TO BE FUNCTIONING PROPERLY ON 8-24-85. THE REACTOR OPERATOR WAS COUNSELLED CONCERNING THE PROPER OPERATOR RESPONSE TO REACTOR WATER LEVEL TRANSIENTS.

[181] PEACH BOTTOM 2 DOCKET 50-277 LER 85-015  
LEAKY INSTRUMENT VALVE CAUSES REACTOR SCRAM.  
EVENT DATE: 082285 REPORT DATE: 092085 NSSS: GE TYPE: BWR

(NSIC 196329) ON AUGUST 22, 1985, THE REACTOR PROTECTION SYSTEM INITIATED A FULL SCRAM DUE TO AN INADVERTENT REACTOR LOW LEVEL SIGNAL. ADDITIONALLY, THE PRIMARY CONTAINMENT ISOLATION SYSTEM INITIATED GROUP II AND GROUP III ISOLATIONS DUE TO THE SAME REACTOR LOW LEVEL SIGNAL. BECAUSE UNIT 2 WAS IN THE COLD SHUTDOWN CONDITION, NO CONTROL ROD MOVEMENT OCCURRED. THE EVENT OCCURRED WHEN A REACTOR PRESSURE TRANSMITTER WAS BEING SURVEILLANCE TESTED. PT-2-6-53B SHARES A SENSING LINE WITH REACTOR LEVEL TRANSMITTERS LT-2-2-3-101C AND LT-2-2-3-101D WHICH ACTUATE THE RPS AND PCIS ON REACTOR LOW LEVEL CONDITION. DURING THE SURVEILLANCE TEST, THE PT-53B BLOCK VALVE IS PLACED IN THE CLOSED POSITION. A HIGH PRESSURE IS THEN APPLIED TO THE VOLUME BETWEEN THE TRANSMITTER AND THE BLOCK VALVE. DUE TO A LEAK THROUGH THE BLOCK VALVE, A SMALL PRESSURE SPIKE OCCURRED IN THE COMMON SENSING LINE WHEN THE TEST PRESSURE WAS APPLIED. THIS SPIKE CAUSED LT-101C AND LT-101D TO GENERATE LOW LEVEL TRIP SIGNALS. THE SCRAM AND GROUP II AND GROUP III ISOLATIONS WERE RESET AND THE AFFECTED SYSTEMS RESTORED TO NORMAL.

[182] PEACH BOTTOM 2 DOCKET 50-277 LER 85-017  
TORUS HAS LOW WATER LEVEL.  
EVENT DATE: 082585 REPORT DATE: 092485 NSSS: GE TYPE: BWR

(NSIC 196331) ON 8-25-85 AT 1930 UNIT 2 WAS IN STARTUP WHEN THE UNIT OPERATOR

DISCOVERED THAT SUPPRESSION POOL VOLUME IN THE TORUS HAD DROPPED SLIGHTLY BELOW THE TECH SPEC LIMIT. SUPPRESSION POOL INVENTORY WAS BEING DECREASED BY THE TORUS WATER FILTER PUMP BECAUSE THE LEVEL IN THE SUPPRESSION POOL HAD RISEN TO JUST BELOW THE UPPER LEVEL LIMIT. THE OPERATOR WAS DISTRACTED DUE TO STARTUP ACTIVITIES AND FAILED TO STOP SUPPRESSION POOL PUMP DOWN BEFORE POOL LEVEL BECAME LOW. CONDENSATE STORAGE TANK WATER WAS USED TO RETURN THE TORUS TO ITS PROPER LEVEL.

[183] PEACH BOTTOM 2 DOCKET 50-277 LER 85-016  
INADVERTENT SCRAM WHILE RETURNING REACTOR PRESSURE INSTRUMENT TO SERVICE.  
EVENT DATE: 082685 REPORT DATE: 092085 NSSS: GE TYPE: BWR

(NSIC 196330) ON 8-26-85 THE RPS INITIATED A FULL SCRAM DUE TO AN INADVERTENT REACTOR LOW LEVEL SIGNAL. ADDITIONALLY, THE PRIMARY CONTAINMENT ISOLATION SYSTEM INITIATED GROUP II AND III ISOLATIONS DUE TO THE SAME SIGNAL. THE EVENT OCCURRED WHEN A REACTOR PRESSURE TRANSMITTER WAS BEING RETURNED TO SERVICE. THE BLOCK VALVE FOR REACTOR PRESSURE TRANSMITTER PT-2-6-53B WAS LEAKING EXCESSIVELY. THE BLOCK VALVE WAS REPLACED AND THE REPLACEMENT VALVE WAS INADVERTENTLY LEFT IN THE CLOSED POSITION. THIS RESULTED IN THE PRESSURE TRANSMITTER BEING LEFT VALVED OUT. THE TECHNICIAN WHO WAS RETURNING THE PRESSURE TRANSMITTER TO SERVICE OPENED THE BLOCK VALVE SLOWLY. ALTHOUGH THE VALVE WAS OPENED SLOWLY, A PRESSURE SPIKE OCCURRED ON THE INSTRUMENT RACK. PT-2-6-53B SHARES A SENSING LINE WITH REACTOR LEVEL TRANSMITTERS LT-2-2-3-101C AND LT-2-2-3-101D. THE SPIKE CAUSED LT-101C AND LT-101D, WHICH RESPOND TO PRESSURES OF THE MAGNITUDE OF INCHES OF WATER, TO GENERATE LOW LEVEL SIGNALS. THE SCRAM SIGNAL AND GROUP II AND III ISOLATIONS WERE RESET AND THE AFFECTED SYSTEMS WERE RETURNED TO SERVICE.

[184] PEACH BOTTOM 2 DOCKET 50-277 LER 85-018  
OPERATOR ERROR CAUSES RWCU SYSTEM HIGH FLOW ISOLATION.  
EVENT DATE: 091285 REPORT DATE: 101185 NSSS: GE TYPE: BWR

(NSIC 196384) ON 9-12-85 THE RWCU SYSTEM INBOARD AND OUTBOARD SUCTION VALVES CLOSED AS A RESULT OF A HIGH FLOW ISOLATION SIGNAL. THE ISOLATION OCCURRED WHEN THE 'A' RWCU FILTER DEMINERALIZER WAS BEING RETURNED TO SERVICE FOLLOWING REGENERATION. THE DEMINERALIZER OUTLET VALVE WAS OPENED TOO QUICKLY, THEREBY CAUSING A HIGH FLOW CONDITION WHICH RESULTED IN THE ISOLATION. THE ISOLATION WAS RESET AND RWCU WAS RETURNED TO SERVICE USING THE 'B' FILTER DEMINERALIZER.

[185] PEACH BOTTOM 2 DOCKET 50-277 LER 85-019  
INOPERABLE RESIDUAL HEAT REMOVAL PUMP.  
EVENT DATE: 091985 REPORT DATE: 101885 NSSS: GE TYPE: BWR  
VENDOR: BISHOPRIC PRODUCTS CO., THE  
FAIRBANKS MORSE

(NSIC 196385) ON 9-19-85 AT 2151 HRS, THE 'A' RHR PUMP WAS DECLARED INOPERABLE. THE E-2 DG WAS OUT-OF-SERVICE FOR ITS ANNUAL INSPECTION. UNIT 2 ACHIEVED COLD SHUTDOWN AT 0510 HRS ON 9-20-85 IN ACCORDANCE WITH TECH SPEC 3.5.F.1. THE PUMP WAS DECLARED INOPERABLE BASED ON LOWER THAN PREVIOUSLY MEASURED FLOW IN THE LOW HEAD REGION OF THE PUMP'S PERFORMANCE CURVE. THE PUMP WAS REMOVED FROM SERVICE, DISASSEMBLED, AND INSPECTED. AFTER REASSEMBLY, NUMEROUS TESTS WERE PERFORMED AND DATA COLLECTED FOR ANALYSIS. A REASSESSMENT OF THE PUMP TEST DATA CONCLUDED THAT THE PUMP PERFORMANCE WAS IN COMPLIANCE WITH THE MINIMUM FLOW REQUIREMENTS OF THE TECH SPEC. THE PUMP WAS RETURNED TO SERVICE ON 10-3-85.

[186] PEACH BOTTOM 3 DOCKET 50-278 LER 85-012  
 IMPROPER CORE CONFIGURATION DURING REFUELING.  
 EVENT DATE: 080785 REPORT DATE: 090685 NSSS: GE TYPE: BWR

(NSIC 196216) ON 8-7-85 AT 8:30 AM, WHILE THE UNIT 3 REACTOR FUEL CORE WAS BEING OFF-LOADED, A PERIPHERAL FUEL BUNDLE WAS ISOLATED FROM A SOURCE RANGE MONITOR (SRM). THE FUEL HANDLING SEQUENCE BEING USED TO OFF-LOAD THE CORE HAD BEEN TEMPORARILY CHANGED TO ALLOW CONTINUED FUEL MOVES BECAUSE OF AN INOPERABLE SRM IN A QUADRANT OF THE CORE. THE TEMPORARY PROCEDURE CHANGE OF THE SEQUENCE DID NOT REQUIRE, AS IT SHOULD HAVE, THE PERIPHERAL FUEL BUNDLE TO BE THE FIRST BUNDLE REMOVED FROM THAT QUADRANT. WHEN THIS CONDITION WAS DISCOVERED, ANOTHER CHANGE WAS IMPLEMENTED TO ALLOW THE PERIPHERAL FUEL BUNDLE TO BE MOVED TO THE FUEL POOL. AFTER THIS FUEL BUNDLE WAS REMOVED, FUEL MOVES WERE SUSPENDED UNTIL THE CAUSE OF THE EVENT HAD BEEN EVALUATED. ALTHOUGH THE SRM MIGHT NOT HAVE BEEN ABLE TO MONITOR THE ISOLATED FUEL, SAFETY CONCERNS ARE MINIMAL BECAUSE THE CORE HAD UNDERGONE EXTENDED CORE LIFE AND THE INDIVIDUAL FUEL BUNDLE HAD BEEN IN THE CORE FOR 3 FUEL CYCLES.

[187] PEACH BOTTOM 3 DOCKET 50-278 LER 85-014  
 STRESS CORROSION CRACKS ON 'A' LOOP CORE SPRAY SUPPLY JUNCTION BOX.  
 EVENT DATE: 082685 REPORT DATE: 092585 NSSS: GE TYPE: BWR

(NSIC 196332) ON 8-26-85 CRACK INDICATIONS WERE DISCOVERED ON THE 240 DEGREE AZIMUTH CORE SPRAY SUPPLY IN-VESSEL JUNCTION BOX. REINFORCEMENT BRACKETS WILL BE INSTALLED TO ENSURE THAT THE STRUCTURAL INTEGRITY OF THE JUNCTION BOX PIPE ATTACHMENT IS RETAINED. THE JUNCTION BOX AT 120 DEGREES AZIMUTH WILL ALSO BE REINFORCED IN A SIMILAR MANNER EVEN THOUGH NO CRACKS WERE FOUND THERE. THE CAUSE OF THE CRACKS IS BELIEVED TO BE INTERGRANULAR STRESS CORROSION CRACKING. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF IE BULLETIN 80-13. CRACKS IN THE UNIT 2 'B' LOOP CORE SPRAY SPARGES INSIDE THE SHROUD ARE REPORTED IN LER 277/82-009.

[188] PILGRIM 1 DOCKET 50-293 LER 84-004 REV 1  
 UPDATE ON SAFETY VALVE SETPOINTS BELOW REQUIREMENT OF TECHNICAL SPECIFICATIONS.  
 EVENT DATE: 032884 REPORT DATE: 101084 NSSS: GE TYPE: BWR  
 VENDOR: DRESSER INDUSTRIAL VALVE & INST DIV

(NSIC 196311) ON 3-28-84, DURING A REFUELING OUTAGE, THE MAINTENANCE DEPARTMENT WAS NOTIFIED BY WYLE LABORATORIES THAT BOTH OF THE MAIN STEAM SAFETY VALVES EXHIBITED SET PRESSURES MORE THAN 1% BELOW THE NAMEPLATE SET PRESSURE. THIS IS CONTRARY TO THE REQUIREMENTS OF PNPS TECH SPEC 2.2.C, WHICH REQUIRES BOTH VALVES TO LIFT AT 1240 PSI PLUS OR MINUS 13 PSI. WHEN TESTED, ONE VALVE LIFTED AT 1209 PSI, AND THE OTHER LIFTED AT 1155 PSI. THE CAUSE OF THIS DEVIATION HAS BEEN DETERMINED TO BE THE SET PRESSURE CALIBRATION METHOD. THE PROCEDURE ALLOWED FOR THE USE OF THE NITROGEN AS A SUBSTITUTE TEST GAS, IN LIEU OF STEAM. AS A RESULT OF THIS DETERMINATION, FUTURE SAFETY VALVE TESTING/CALIBRATION WILL BE PERFORMED USING STEAM AS THE TEST MEDIUM.

[189] PILGRIM 1 DOCKET 50-293 LER 84-005 REV 1  
 UPDATE ON TARGET ROCK SAFETY RELIEF VALVE OPERABILITY PROBLEMS.  
 EVENT DATE: 040484 REPORT DATE: 100984 NSSS: GE TYPE: BWR  
 VENDOR: TARGET ROCK CORP.

(NSIC 196312) ON 4-4-84, DURING A REFUELING OUTAGE, THE MAINTENANCE DEPARTMENT WAS NOTIFIED BY WYLE LABORATORIES THAT THE PILOT VALVES ON 2 OF THE TARGET ROCK 2-STAGE SAFETY RELIEF VALVES DID NOT LIFT WITHIN SPECIFICATION WHEN DIAGNOSTICALLY TESTED IN THE AS-FOUND CONDITION. THIS IS CONTRARY TO THE REQUIREMENTS OF THE INTENT OF PNPS TECH SPEC 2.2.B WHICH REQUIRED THE S/RV'S TO

LIFT AT 1095 PSI PLUS OR MINUS 11 PSI. THE CAUSE OF THE S/RV'S NOT LIFTING WAS DETERMINED TO BE STUCK PILOT VALVES. THE CAUSE OF THE STICKING WAS DETERMINED TO BE AN OXIDE/CORROSION PRODUCT BUILDUP BETWEEN THE SEAT AND DISC OF THE PILOT VALVE. CORRECTIVE ACTION HAS BEEN TO CHANGE THE PILOT DISC MATERIAL FROM STELLITE 6B TO STELLITE 21, SINCE THE LATTER HAS BEEN PROVEN TO BE LESS SUSCEPTIBLE TO THE EFFECT OF OXIDE/CORROSION PRODUCT BUILDUP.

[190] PILGRIM 1 DOCKET 50-293 LER 84-006 REV 1  
 UPDATE ON FIRE DOOR DEGRADATION.  
 EVENT DATE: 040584 REPORT DATE: 012285 NSSS: GE TYPE: BWR  
 VENDOR: WILLIAMSBURG

(NSIC 196313) ON 4-5-84, DURING A REFUELING OUTAGE, A DETAILED INSPECTION OF TECH SPEC FIRE DOORS WAS PERFORMED. AS A RESULT OF THAT INSPECTION, 37 DOORS WERE FOUND TO BE POTENTIALLY NON-FUNCTIONAL DUE TO HOLES IN THE DOOR AND FRAME, EXCESSIVE SPACES, OR OTHER DAMAGE THAT COULD DECREASE THE REQUIRED FIRE RATING. AT THAT TIME, THE 37 DOORS WERE DECLARED NON-FUNCTIONAL AND FIRE PATROLS WERE ESTABLISHED FOR THE AFFECTED AREAS. THE ORIGINAL LER WAS WRITTEN BECAUSE IT WAS THOUGHT THAT THE TECH SPEC 3.12.F LCO FOR NON-FUNCTIONAL DOORS HAD BEEN EXCEEDED. AN ENGINEERING ANALYSIS HAS BEEN PERFORMED WHICH, BASED ON A THEORETICAL AND REALISTIC FIRE ANALYSIS, REVEALS THAT THE 37 DOORS WERE FUNCTIONAL AND MET THE REQUIREMENTS OF TECH SPEC 3.12.F. BASED ON THIS ANALYSIS, PLEASE NOTE THAT THIS UPDATE REPORT CHANGES THE REASON FOR REPORTING FROM 10CFR50.73(A)(2)(I) TO 'OTHER.'

[191] PILGRIM 1 DOCKET 50-293 LER 85-024  
 MISSED SURVEILLANCE TEST OF STATION 250V BATTERIES.  
 EVENT DATE: 060285 REPORT DATE: 092585 NSSS: GE TYPE: BWR

(NSIC 196336) ON 9-4-85, BOSTON EDISON CO RESPONDED TO NRC INSPECTION 85-17. INCLUDED IN THE INSPECTION REPORT WAS REFERENCE TO A MISSED SURVEILLANCE TEST OF THE STATION 250V BATTERIES (ITEM OF NON-COMPLIANCE 85-17-01). THE WEEKLY SURVEILLANCE TEST IS REQUIRED BY TECH SPEC, SECTION 4.9.A.2, AND WAS MISSED ON 6-2-85. THE UNIT WAS OPERATING AT APPROX 100% POWER JUST PRIOR TO THE EVENT. CAUSE OF THE MISSED TEST WAS A PROCEDURAL DEFICIENCY. CORRECTIVE ACTION WAS TO REVISE THE PROCEDURE AND RETEST THE BATTERIES. THE TEST VERIFIED THE BATTERIES TO BE WITHIN ACCEPTABLE LIMITS. ADDITIONAL DETAILS OF THIS EVENT ARE AVAILABLE IN THE LICENSEE'S RESPONSE TO INSPECTION 85-17, DATED 9-4-85. A SEARCH OF LER RECORDS IDENTIFIED NO PREVIOUS MISSED SURVEILLANCE ON THE STATION BATTERIES.

[192] PILGRIM 1 DOCKET 50-293 LER 85-022  
 UNMONITORED RELEASE PATH THROUGH HOT SHOP VENTILATION SYSTEM.  
 EVENT DATE: 081285 REPORT DATE: 091185 NSSS: GE TYPE: BWR

(NSIC 196334) ON 8-12-85 IT WAS DISCOVERED THAT A PORTION OF THE MAINTENANCE 'HOT SHOP' VENTILATION HAD BECOME CONTAMINATED AND PROVIDED AN UNMONITORED RELEASE PATH TO THE ENVIRONMENT. THE HOT SHOP VENTILATION DESIGN IS SUCH THAT 20% OF THE AIR IS EXHAUSTED THROUGH AN EXHAUST HOOD OVER A DECONTAMINATION THROUGH AND INTO A RADWASTE AIR FILTERING UNIT. THE REMAINDER IS EXHAUSTED THROUGH THE GENERAL AREA VENTILATION. THE EVENT WAS DISCOVERED DURING A HEALTH PHYSICS INVESTIGATION OF SLIGHT CONTAMINATION IN AN AREA WITH VENTILATION THAT CROSS-TIES TO THE HOT SHOP GENERAL AREA DUCT WORK. IMMEDIATE CORRECTIVE ACTION WAS TO TAG THE ASSOCIATED FAN AND BREAKER, SEAL THE DUCTWORK INLET, AND SECURE A DOWNSTREAM DAMPER IN THE ISOLATION POSITION. CAUSE OF THE EVENT IS A DESIGN INADEQUACY. ENGINEERING HAS BEEN REQUESTED TO EVALUATE THE SYSTEM DESIGN. THE GENERAL AREA VENTILATION WILL REMAIN TAGGED UNTIL FINAL CORRECTIVE ACTION HAS BEEN COMPLETED.

[193] PILGRIM 1 DOCKET 50-293 LER 85-021  
 TWO MAIN STEAM LINE MONITOR SETPOINTS OUTSIDE TECHNICAL SPECIFICATION LIMITS.  
 EVENT DATE: 081485 REPORT DATE: 091385 NSSS: GE TYPE: BWR  
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 196220) ON 8-14-85, A REVIEW OF THE CHEMISTRY DAILY LOG REVEALED THAT 2 OF THE 4 MAIN STEAM LINE RADIATION MONITORS HAD TRIP SETPOINTS GREATER THAN TECH SPEC REQUIREMENTS. THE REVIEW SHOWED THAT RADIATION MONITOR 1705-2B WAS GREATER THAN TECH SPEC LIMITS FROM 8-9-85 TO 8-12-85. THE REVIEW ALSO SHOWED THAT MONITOR 1705-2C WAS GREATER THAN TECH SPEC LIMITS FROM 8-10-85 TO 8-13-85. CAUSE WAS DUE TO NON-LICENSED UTILITY PERSONNEL ERROR. THE ERROR OCCURRED DUE TO THE LACK OF A PROCEDURE. CORRECTIVE ACTION WAS TO ADJUST THE SETPOINTS WITHIN TECH SPEC LIMITS AND, IN ADDITION, A NOTE WAS ADDED TO THE CHEMISTRY DAILY LOG REQUIRING THAT WHEN READINGS DECREASE MORE THAN 125 MR/HR BELOW POSTED BACKGROUND, THE CHEMICAL ENGINEER SHALL BE NOTIFIED. PERSONNEL INVOLVED WERE INSTRUCTED IN THE NEW REQUIREMENT. LONG-TERM CORRECTIVE ACTION WILL BE TO DEVELOP A PROCEDURE THAT WILL INCLUDE AN APPROPRIATE ACCEPTANCE CRITERIA AND ACTION STATEMENT TO BE TAKEN IF READINGS ARE FOUND OUTSIDE ACCEPTABLE LIMITS. ENGINEERING IS EVALUATING THE REPLACEMENT OF THE MONITORS UNDER THE NUMAC REPLACEMENT PROJECT.

[194] PILGRIM 1 DOCKET 50-293 LER 85-023  
 HPCI SYSTEM INOPERABLE DUE TO TURBINE CONTROL VALVE OIL LEAK.  
 EVENT DATE: 082785 REPORT DATE: 092585 NSSS: GE TYPE: BWR  
 VENDOR: TERRY STEAM TURBINE COMPANY

(NSIC 196335) ON 8-27-85 AT 0400 HRS, WHILE PERFORMING THE HPCI PUMP OPERABILITY FLOW RATE TEST, THE HPCI TURBINE CONTROL VALVE FAILED TO OPERATE PROPERLY. IMMEDIATE CORRECTIVE ACTION WAS TO DECLARE THE HPCI SYSTEM INOPERABLE AND TO PROCEED WITH SURVEILLANCE TESTING REQUIRED FOR AN INOPERABLE HPCI SYSTEM. AN INVESTIGATION REVEALED THAT A NIPPLE IN THE OIL SUPPLY LINE TO THE HPCI HYDRAULIC CONTROL VALVE WAS LEAKING. THE CAUSE OF THE LEAKING NIPPLE WAS DUE TO PERSONNEL INADVERTENTLY STEPPING ON THE OIL LINE GOING TO THE HPCI TURBINE HYDRAULIC CONTROL VALVE. THE CORRECTIVE ACTION WAS TO REPAIR THE LEAKING NIPPLE. ALSO, LER 85-023 WILL BE DISTRIBUTED TO STATION CHIEFS THAT ARE IN CHARGE OF WORK ACTIVITIES IN THE HPCI AREA. THE HPCI SYSTEM WAS TESTED AND DECLARED OPERABLE ON 8-28-85 AT 1800 HRS.

[195] PILGRIM 1 DOCKET 50-293 LER 85-026  
 INADEQUATE SURVEILLANCE PROCEDURE FOR CONTROL ROD POSITION INDICATION LIGHTS.  
 EVENT DATE: 083085 REPORT DATE: 092785 NSSS: GE TYPE: BWR

(NSIC 196338) ON 8-30-85 AT 0940 HRS, DURING A QA AUDIT OF OPERATIONS, A DEFICIENCY REPORT (#1441) WAS WRITTEN FOR FAILURE TO PERFORM AN INSTRUMENT CHECK OF THE 28 VOLT CONTROL ROD POSITION INDICATING LIGHTS. THIS IS CONTRARY TO THE REQUIREMENTS OF TECH SPEC, TABLES 3.2.F AND 4.2.F. CAUSE OF NOT PERFORMING THE 28 VOLT LIGHTS' INSTRUMENT CHECK WAS DUE TO AN INADEQUATE PROCEDURE. CORRECTIVE ACTION WAS TO REVISE PROCEDURE (#2.1.15) ON 9-4-85 TO VERIFY THE CONTROL ROD POSITION INDICATING LIGHTS ONCE PER SHIFT. A PREVIOUS OCCURRENCE OF A SIMILAR NATURE WAS DISCUSSED IN LER 85-002.

[196] PILGRIM 1 DOCKET 50-293 LER 85-025  
 SALT BUILDUP IN SWITCHYARD CAUSES LOAD REJECT AND REACTOR SCRAM.  
 EVENT DATE: 090185 REPORT DATE: 092785 NSSS: GE TYPE: BWR

(NSIC 196337) ON 9-1-85 AT 0521 HRS, A REACTOR SCRAM OCCURRED WHEN AN INSULATOR IN THE SWITCHYARD ARCED TO GROUND AND DISINTEGRATED. THE ARCING WAS CAUSED BY SALT BUILD-UP ON THE INSULATORS AS THE RESULT OF A HEAVY OCEAN STORM. A LIVE

SWITCHYARD WASHDOWN WAS IN PROGRESS WHEN THE EVENT OCCURRED. THE INSULATOR THAT FAILED WAS LOCATED BETWEEN THE GENERATOR AND THE FIRST SWITCHYARD ISOLATION, AND THUS IS UNISOLABLE WITHOUT REMOVING THE UNIT FROM THE GRID. CAUSE OF THE EVENT WAS DUE TO FORCES OF NATURE (E.G., WIND AND SALT AIR). CORRECTIVE ACTION WAS TO REPLACE THE INSULATOR AND PERFORM A REVIEW OF THE WASHDOWN PROCEDURES TO ENSURE ADEQUACY. THE UNIT WAS SYNCHRONIZED TO THE GRID ON 9-7-85 AT 1243 HRS. A PREVIOUS EVENT OF A SIMILAR NATURE WAS REPORTED IN LER 293/83-007.

[197] PILGRIM 1 DOCKET 50-293 LER 85-027  
 LPCI INJECTION VALVE INOPERABLE.  
 EVENT DATE: 091985 REPORT DATE: 101885 NSSS: GE TYPE: BWR  
 VENDOR: RELIANCE ELECTRIC COMPANY

(NSIC 196389) ON 9/19/85, AT APPROXIMATELY 0850 HOURS, AN LPCI INJECTION VALVE WOULD NOT OPEN DURING TESTING. THE LPCI SYSTEM WAS OUT OF SERVICE FOR EQUIPMENT QUALIFICATION WORK WHEN THE EVENT OCCURRED. CAUSE WAS DETERMINED TO BE A FAILED MOTOR IN THE VALVE MOTOR OPERATOR. CORRECTIVE ACTION WAS TO REPLACE THE MOTOR. ROOT CAUSE OF THE MOTOR FAILURE IS BELIEVED TO BE NORMAL WEAR AND AGING. THE MOTOR WAS MANUFACTURED BY THE RELIANCE ELECTRIC COMPANY (I.S. #Y234240A3). REPAIRS WERE COMPLETED ON 9/21/85 AT APPROXIMATELY 1714 HOURS. REDUNDANCY WAS PROVIDED BY THE "A" LOOP OF RHR AND THE CORE SPRAY SYSTEM. A SEARCH OF LER RECORDS IDENTIFIED NO PREVIOUS OCCURRENCES OF A SIMILAR NATURE ON THE SUBJECT VALVE.

[198] POINT BEACH 1 DOCKET 50-266 LER 85-007  
 NUCLEAR INSTRUMENTATION SIGNAL SPIKE CAUSES TURBINE RUNBACK.  
 EVENT DATE: 091185 REPORT DATE: 101085 NSSS: WE TYPE: PWR

(NSIC 196274) AT 1315 HRS ON 9-11-85, UNIT 1 EXPERIENCED A TURBINE RUNBACK FROM 100% TO APPROX 80% POWER. THIS WAS DUE TO A MOMENTARY NEGATIVE DOWNWARD SPIKE ON THE NUCLEAR INSTRUMENTATION SYSTEM (NIS) CAUSED BY A VOLTAGE SPIKE ON THE YELLOW INSTRUMENT BUS FEEDING NIS CHANNEL 44. THE VOLTAGE SPIKE WAS CAUSED BY A CONTRACTOR PACKING FIRE BARRIER MATERIAL INTO AN ELECTRICAL CONDUIT CONTAINING THE POWER SUPPLY TO THE INVERTER SUPPLYING THE YELLOW INSTRUMENT BUS. THE PLANT WAS RETURNED TO 100% POWER A SHORT TIME AFTER THE EVENT. ALL RESPONSE TO THE TURBINE RUNBACK WAS NORMAL.

[199] PRAIRIE ISLAND 1 DOCKET 50-282 LER 85-011  
 INOPERABILITY OF DIESEL GENERATORS.  
 EVENT DATE: 080185 REPORT DATE: 090385 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: PRAIRIE ISLAND 2 (PWR)  
 VENDOR: FAIRBANKS MORSE

(NSIC 196219) POWER LEVEL: 100% (UNIT 1); 83% (UNIT 2). ON 8-1-85, D1 DG WAS OUT OF SERVICE FOR MAINTENANCE. AT 1030, NO. 22 CONTROL ROOM CHILLER (CHU) TRIPPED. INVESTIGATION SHOWED THAT 480V BUS 220 BREAKER 228 HAD TRIPPED, DEENERGIZING MOTOR CONTROL CENTERS (MCC) 1T2 (WHICH POWERS THE CHU) AND 1TA2 (WHICH POWERS THE AUXILIARIES FOR D2 DG). AT 1056, BREAKER 228 WAS RECLOSED, RESTORING POWER TO MCC 1T2 AND 1TA2. BREAKER 228 WAS ACCIDENTALLY TRIPPED BY CONSTRUCTION ELECTRICIANS WORKING IN THE AREA. BREAKERS OF THIS TYPE USUALLY HAVE A MANUAL TRIP BLOCKING DEVICE INSTALLED TO PREVENT ACCIDENTAL TRIPS SUCH AS THIS, BUT IN THIS CASE THE DEVICE WAS MISSING. INVOLVED WORKMEN WERE COUNSELED CONCERNING THEIR ACTIVITIES. AN ADDITIONAL PHYSICAL BARRIER WAS ERECTED IN THE WORK AREA TO MINIMIZE THE CHANCE OF RECURRENCE. A SEARCH FOR A MORE EFFECTIVE MANUAL TRIP BLOCKING DEVICE IS UNDERWAY.

[200] PRAIRIE ISLAND 1 DOCKET 50-282 LER 85-016  
 CRACKED PIPE RESULTS IN COOLING WATER LEAKAGE IN CONTAINMENT.  
 EVENT DATE: 101685 REPORT DATE: 103085 NSSS: WE TYPE: PWR

(NSIC 196386) ON 10-16 DURING THE MONTHLY AT-POWER INSPECTION OF CONTAINMENT, MINOR LEAKAGE WAS SEEN ON THE COOLING WATER INLET PIPE TO NO. 14 FAN-COIL UNIT (FCU). THE LEAKAGE IS COMING FROM A CIRCUMFERENTIAL CRACK ABOUT 1 INCH LONG IN THE 2 1/2 INCH DIAMETER, SCHEDULE 40 PIPE. THE CRACK APPEARS TO BE THE RESULT OF CYCLIC FATIGUE; THERE IS SOME VIBRATION IN THAT PART OF THE PIPING SYSTEM UNDER SOME FLOW CONDITIONS. STRESS ANALYSIS SHOWS THE CRACK SIZE IS ABOUT 25% OF THE MAXIMUM CODE ALLOWABLE; THE PIPE HAS ADEQUATE STRENGTH TO WITHSTAND EXISTING AND POSTULATED LOADS. NO. 14 FAN-COIL UNIT IS CONSIDERED OPERABLE. A TEMPORARY PATCH HAS BEEN APPLIED TO THE LEAK. REPAIR PLANS ARE BEING FORMULATED AND REPAIRS WILL BE COMPLETED NO LATER THAN THE SPRING 1986 REFUELING OUTAGE. CONTAINMENT SUMP A IS BEING MONITORED FOR INCREASED LEAKAGE. GROSS FAILURE OF THE PIPE WOULD GIVE CONTROL ROOM ANNUNCIATION; ISOLATION COULD BE ACCOMPLISHED IMMEDIATELY FROM THE CONTROL ROOM. THIS LER IS PROVIDED IN ACCORDANCE WITH THE REQUIREMENTS OF I.E. BULLETIN 80-24.

[201] QUAD CITIES 1 DOCKET 50-254 LER 85-015  
 REACTOR CORE ISOLATION COOLING INOPERABLE DUE TO FAILED OVERSPEED METER.  
 EVENT DATE: 083085 REPORT DATE: 091885 NSSS: GE TYPE: BWR  
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 196208) ON AUGUST 30, 1985, UNIT 1 WAS OPERATING IN THE RUN MODE AT 100 PERCENT OF RATED CORE THERMAL POWER. AT 4:10 A.M. THE REACTOR CORE ISOLATION COOLING (RCIC)(BN) TURBINE OVERSPEED AND RCIC TURBINE TRIP ALARMS WERE RECEIVED. APPROXIMATELY ONE-HALF HOUR LATER, THE OPERATOR WAS ABLE TO RESET THE TURBINE TRIP BY TAPPING ON THE OVERSPEED METER. AT 5:10 A.M. THE SYSTEM TRIPPED AGAIN, FOLLOWED BY ANOTHER RESET TWO MINUTES LATER. AFTER EACH TRIP RCIC WAS DECLARED INOPERABLE. HIGH PRESSURE COOLANT INJECTION (HPCI)(BJ) SURVEILLANCES QOS 2300-S2 AND S3 WERE PERFORMED AT 5:10 A.M. AND 6:10 S.M., RESPECTIVELY. THE CAUSE OF THIS EVENT WAS CORROSION ON THE LEADS TO THE OVERSPEED RELAY LAMP. A "VARNISH-LIKE SUBSTANCE" WAS FOUND ON THE LEADS. THE LEADS WERE CLEANED AND THE SYSTEM WAS DECLARED OPERABLE AT 3 P.M. ON AUGUST 30, 1985. THE RECURRING PROBLEMS OF THIS ELECTRIC OVERSPEED TRIP RELAY PROMPTED A RECOMMENDATION BY GENERAL ELECTRIC TO REMOVE THIS TRIP RELAY, AND ACTION ITEM RECORD 4-85-16 WAS INITIATED TO INVESTIGATE THIS RECOMMENDATION.

[202] QUAD CITIES 1 DOCKET 50-254 LER 85-016  
 ELECTRICAL NOISE CAUSES REFUEL FLOOR RADIATION MONITOR SPIKE.  
 EVENT DATE: 090585 REPORT DATE: 092485 NSSS: GE TYPE: BWR  
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 196325) AT 1348 HOURS THE CONTROL ROOM RECEIVED A SPURIOUS HIGH ALARM AND TRIP OF THE 1B FUEL POOL RADIATION MONITOR (IL). THE REACTOR BUILDING VENTILATION (VA) ISOLATED AND THE STANDBY GAS TREATMENT (SBGTS)(BH) INITIATED. NO ABNORMAL RADIATION LEVELS WERE DISCOVERED AND THESE SYSTEMS WERE MANUALLY RESET AT 1350 HOURS. THE CAUSE OF THIS TRIP IS PROBABLY ELECTRICAL NOISE INTERFERENCE. THE INSTRUMENT MAINTENANCE DEPARTMENT HAS DISCOVERED A HIGHER THAN NORMAL INDUCED VOLTAGE ON THE 1B FUEL POOL MONITOR. IT IS CURRENTLY PLANNED TO REROUTE THE SIGNAL CABLE FOR THIS MONITOR TO AVOID HIGH NOISE AREAS. THIS REROUTE IS EXPECTED TO BE COMPLETED BY AUGUST 30, 1986.

[203] QUAD CITIES 2 DOCKET 50-265 LER 85-018  
 SETPOINT DRIFT OF TWO CONDENSER VACUUM PRESSURE SWITCHES.  
 EVENT DATE: 082685 REPORT DATE: 091285 NSSS: GE TYPE: BWR  
 VENDOR: BARKSDALE CONTROLS DIV

(NSIC 196212) DURING THE PERFORMANCE OF "LOW CONDENSER (SG) VACUUM CALIBRATION", QIS 19-1, THE SETPOINTS OF PRESSURE SWITCHES PS-2-503A AND PS-2-503C WERE FOUND TO HAVE DRIFTED TO 20.8 INCHES HG VACUUM AND 19.4 INCHES HG VACUUM, RESPECTIVELY. THE SWITCHES WERE RECALIBRATED TO WITHIN TECH SPECS. THE CAUSE OF THIS EVENT WAS INSTRUMENT SETPOINT DRIFT. HOWEVER, THE CONDENSER (SG) LOW VACUUM SCRAM IS ANTICIPATORY TO THE STOP VALVE CLOSURE SCRAM WHICH IS ADEQUATE TO PREVENT THE CLADDING SAFETY LIMIT FROM BEING EXCEEDED.

[204] QUAD CITIES 2 DOCKET 50-265 LER 85-019  
 MAIN STEAM ISOLATION VALVES HAVE SHORT CLOSURE TIMES.  
 EVENT DATE: 090885 REPORT DATE: 092485 NSSS: GE TYPE: BWR  
 VENDOR: FLICK REEDY CORP.

(NSIC 196273) ON 9-8 AT 0225 HRS, WHILE PERFORMING MSIV CLOSURE TIME TESTING (QOS 250-4), VALVES AO 2-203-1B, 2-203-1C, AND 2-203-1D HAD CLOSURE TIMES OF 2.72 SECS, 2.89 SECS, AND 2.80 SECS, RESPECTIVELY. TABLE 3.7.1, OF THE TECH SPECS, REQUIRES A CLOSING TIME OF 3 TO 5 SECS. AT 0820 HRS UNIT 2 REACTOR SHUTDOWN COMMENCED PER TECH SPEC 3.7.D.3. A DRYWELL ENTRY WAS MADE TO ADJUST THE CLOSURE TIMES; THE 3 VALVES WERE RETESTED SATISFACTORILY AND THE REACTOR SHUTDOWN WAS TERMINATED AT 300 MWE, AT 1314 HRS. THE CAUSE OF THIS DEVIATION WAS THE SPEED CONTROL VALVE ADJUSTMENT ON THE HYDRAULIC CONTROL CYLINDER DRIFTING OUT OF ADJUSTMENT. THE SPEED CONTROL VALVE IS A NEEDLE VALVE THAT REGULATES THE RATE AT WHICH THE HYDRAULIC FLUID FLOWS FROM THE BOTTOM TO THE TOP OF THE PISTON. THE PISTON IS CONNECTED TO THE STEM OF THE MSIV AND REGULATES THE TRAVEL SPEED OF THE VALVE. OTHER PREVIOUS OCCURRENCES OF A SIMILAR NATURE ARE 265/79-20 AND 265/80-10. THIS REPORT IS SUBMITTED IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 10, PART 50.73(A)(2)(I).

[205] RANCHO SECO DOCKET 50-312 LER 85-016  
 SPURIOUS CLOSURE OF DHR DROPLINE ISOLATION VALVE.  
 EVENT DATE: 080885 REPORT DATE: 090585 NSSS: BW TYPE: PWR

(NSIC 196341) ON 8-8 AND 8-14-85 WHILE THE PLANT WAS IN COLD SHUTDOWN, THE DECAY REMOVAL SUCTION BLOCK VALVE (HV-20002) AUTOMATICALLY CLOSED ON A HIGH RCS PRESSURE SIGNAL, THUS RESULTING IN A TEMPORARY LOSS OF THE DHR SYSTEM CAPABILITY. IN BOTH CASES, DHR FLOW WAS RE-ESTABLISHED IN 11 MINS OR LESS, AND NO NOTICEABLE INCREASES IN THE INCORE TEMPERATURES WERE DETECTED. HV-20002 IS DESIGNED TO CLOSE AUTOMATICALLY WHEN THE RCS PRESSURE EXCEEDS 255 PSIG. THE RCS PRESSURE RECORDED BY OPERATIONS PERSONNEL AT THE TIME OF THE EVENTS WAS APPROX 230 PSIG. ALTHOUGH NO DEFINITE REASON FOR THE VALVE CLOSURES WAS DETERMINED, AN INVESTIGATION OF THE EVENTS INDICATED THAT VOLTAGE SPIKES ON PRESSURE TRANSMITTER PT-21099 CIRCUITRY CAUSED THE BLOCK VALVE TO CLOSE. PT-21099 WAS REPLACED AND CALIBRATED DURING THE RECENT REFUELING OUTAGE AND A MAINTENANCE TEST WAS PERFORMED FOLLOWING THE EVENTS TO ENSURE THE PROPER OPERABILITY OF THE DECAY HEAT VALVE INTERLOCK AND ASSOCIATED INSTRUMENTATION. A RECORDER HAS BEEN INSTALLED TO CONTINUOUSLY MONITOR THE OUTPUT OF PT-21099 WHILE THE DHR SYSTEM IS OPERABLE. IN A RECURRENCE OF THE EVENT THE TRANSMITTER OUTPUT RECORDING WOULD BE USED TO IDENTIFY THE SOURCE OF THE VOLTAGE SPIKE.

[206] RIVERBEND 1 DOCKET 50-458 LER 85-001  
 REACTOR PROTECTION SYSTEM ACTUATION ON HIGH SOURCE RANGE MONITOR COUNTS.  
 EVENT DATE: 083185 REPORT DATE: 093085 NSSS: GE TYPE: BWR

(NSIC 196366) AT 0350 ON 8-31-85, WITH THE UNIT SUBCRITICAL DURING THE PERFORMANCE OF 1-ST-3 (FUEL LOAD), THE RPS ACTUATED ON HIGH SOURCE RANGE MONITOR (SRM) COUNTS. THIS WAS CAUSED BY THE CORE GEOMETRY CHANGE WHEN THE INITIAL FUEL BUNDLE WAS PLACED IN THE CORE. THE OPERATOR ON THE REFUELING PLATFORM RELOCATED THE 4 FUEL LOADING CHAMBERS IN THE CORE TO ELIMINATE THE HIGH SRM COUNTS.

[207] RIVERBEND 1 DOCKET 50-458 LER 85-002  
 NOISE SPIKES ON MAIN STEAM LINE RADIATION MONITORS CAUSES TWO REACTOR PROTECTION  
 SYSTEM ACTUATIONS.  
 EVENT DATE: 090485 REPORT DATE: 093085 NSSS: GE TYPE: BWR

(NSIC 196367) AT 1315 ON 9-4-85 WITH THE UNIT SUBCRITICAL, THE RPS ACTUATED ON  
 HIGH MAIN STEAM LINE (MSL) RADIATION. TWO MINS LATER THE RPS ACTUATED ON HIGH  
 SCRAM DISCHARGE VOLUME LEVEL. TWO MINS LATER A THIRD RPS ACTUATION OCCURRED,  
 AGAIN ON HIGH MAIN STEAM LINE RADIATION. THIS WAS CAUSED BY HAVING THE RPS  
 CHANNEL 'A' MANUALLY TRIPPED DURING CALIBRATION COUPLED WITH INADVERTENT NOISE  
 SPIKES DURING AN INSPECTION OF THE MAIN STEAM LINE RADIATION MONITORS TRIPPING  
 RPS CHANNEL 'B'. THE HIGH SCRAM DISCHARGE VOLUME LEVEL TRIP RESULTED FROM THE  
 INITIAL ACTUATION. THE INSPECTION ON THE RADIATION MONITORS WAS CEASED, AND THE  
 MSL RADIATION MONITORS HAVE BEEN TEMPORARILY JUMPED OUT OF THE RPS LOGIC.

[208] RIVERBEND 1 DOCKET 50-458 LER 85-003  
 REACTOR PROTECTION SYSTEM ACTUATION.  
 EVENT DATE: 090485 REPORT DATE: 093085 NSSS: GE TYPE: BWR

(NSIC 196305) AT 2010 ON 9/4/85, A FULL REACTOR PROTECTION SYSTEM (RPS) ACTUATION  
 OCCURRED. THE PLANT WAS SUBCRITICAL AND IN THE INITIAL FUEL LOADING PROCESS.  
 WORK WAS BEING PERFORMED IN THE RPS LOGIC B SYSTEM, RESULTING IN A HALF SCRAM.  
 TECHNICIANS UNINTENTIONALLY SHORTED A CONTACT WHILE ATTEMPTING TO INSTALL A  
 JUMPER, CAUSING RPS LOGIC A TO TRIP THUS INITIATING A FULL SCRAM.

[209] RIVERBEND 1 DOCKET 50-458 LER 85-004  
 APRM SURVEILLANCE TESTING MISSED.  
 EVENT DATE: 090685 REPORT DATE: 093085 NSSS: GE TYPE: BWR

(NSIC 196306) AT 2330, WITH THE UNIT SUBCRITICAL, IT WAS DISCOVERED THAT THE APRM  
 WEEKLY RPS FUNCTIONAL TESTS (CHANNELS B, D, E, G, H) DID NOT SATISFY THE  
 REQUIREMENTS FOR THE SETDOWN NEUTRON TRIP. DURING THIS TIME, CORE ALTERATIONS  
 HAD BEEN PERFORMED WITH LESS THAN THE MINIMUM NUMBER OF APRM CHANNELS. THE SHIFT  
 SUPERVISOR DECLARED THE ABOVE MENTIONED APRM'S INOPERABLE. THE REQUIRED APRM  
 WEEKLY RPS FUNCTIONAL TESTS WERE COMPLETED, AND CORE ALTERATIONS RESUMED.

[210] RIVERBEND 1 DOCKET 50-458 LER 85-005  
 REACTOR PROTECTION SYSTEM ACTUATION CAUSED BY OPERATOR ERROR.  
 EVENT DATE: 091385 REPORT DATE: 093085 NSSS: GE TYPE: BWR

(NSIC 196307) ON 9-13-85 AT 0110 WITH THE UNIT SUBCRITICAL DURING THE PERFORMANCE  
 OF STP-000-0001 (DAILY OPERATING LOG), A RPS ACTUATION OCCURRED. THIS WAS CAUSED  
 BY AN OPERATOR'S ERROR WHEN THE IRM 'E' CHANNEL MODE SWITCH WAS INADVERTENTLY  
 MOVED FROM OPERATE TO STANDBY. THE IRM 'E' CHANNEL WAS PLACED BACK INTO THE  
 OPERATE POSITION, AND THE SCRAM RESET.

[211] ROBINSON 2 DOCKET 50-261 LER 85-021  
 VOLTAGE SPIKES CAUSE REACTOR TRIPS DUE TO FALSE REACTOR COOLANT FLOW SIGNALS AND  
 FALSE NUCLEAR INSTRUMENT SIGNALS.  
 EVENT DATE: 091785 REPORT DATE: 101085 NSSS: WE TYPE: PWR

(NSIC 196272) ON 9-17-85, THE REACTOR WAS AT 100% POWER. AT 1259 HRS, A REACTOR  
 TRIP OCCURRED DUE TO A FALSE LOW REACTOR COOLANT FLOW SIGNAL. TESTING ON THE  
 LOOP 1 REACTOR COOLANT FLOW PROTECTION CIRCUITRY WAS IN PROGRESS. ONE OF THE  
 THREE BISTABLES FOR LOOP 1 WAS TRIPPED FOR TESTING. AN INSTRUMENT BUS #2 VOLTAGE  
 SPIKE OCCURRED GENERATING A FALSE SECOND LOOP 1 LOW FLOW SIGNAL. THIS PROVIDED  
 THE NECESSARY 2 OUT OF 3 SIGNALS REQUIRED FOR THE 1 LOOP LOW FLOW REACTOR TRIP.

AN EXTENSIVE WALKDOWN OF IB #2 WAS PERFORMED, AND NO SPECIFIC CAUSE FOR THE VOLTAGE SPIKE WAS IDENTIFIED. A SPECIAL PLANT NUCLEAR SAFETY COMMITTEE (PNSC) MEETING WAS HELD TO REVIEW THE EVENT. THE PNSC DETERMINED THAT THE INVESTIGATION HAD BEEN THOROUGH, THAT NO OTHER ACTION COULD BE TAKEN TO DETERMINE THE CAUSE OF THE VOLTAGE SPIKE, AND THAT IT WAS SAFE TO RESTART THE UNIT. AS OF 10-8-85, VOLTAGE SPIKES ON IB#2 HAVE NOT REOCCURRED.

[212] SALEM 1 DOCKET 50-272 LER 84-005 REV 1  
 UPDATE ON REACTOR TRIP DUE TO TURBINE GENERATOR FAILURE.  
 EVENT DATE: 022484 REPORT DATE: 031985 NSSS: WE TYPE: PWR  
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 196258) ON 2-24-84 DURING ROUTINE POWER OPERATION, A REACTOR TRIP OCCURRED FROM 100% POWER. THE REACTOR TRIP WAS A RESULT OF UNIT 1 TURBINE GENERATOR TRIPPING ON GENERATOR NEUTRAL GROUND PROTECTION. INITIAL INVESTIGATION REVEALED THAT COIL B31 HAD FAILED OUTSIDE THE IRON, AT THE COOLING WATER CONNECTION ON THE EXCITER END OF THE GENERATOR. A COOLING WATER LEAK HAD ALSO DEVELOPED IN THIS AREA. SOME COPPER SPATTER FROM THE FAILED COIL, AND DEGRADED INSULATION WAS NOTED IN SEVERAL AREAS. IT HAS BEEN CONCLUDED THAT THE GENERATOR WAS BUILT WITH AN INCOMPLETELY CURED CONFORMABLE LAYER OF IMPREGNATING RESIN; RESULTING IN RESIN 'RUNOUT' DURING OPERATION. THE GENERATOR WAS REWOUND UTILIZING AN IMPROVED CONFORMABLE LAYER OF RESIN AND INCORPORATING MANY IMPROVED FEATURES DURING THE REWIND PROCESS. THE RPS FUNCTIONED AS DESIGNED. THE TURBINE TRIP AND THE REACTOR TRIP OCCURRED AS REQUIRED TO PREVENT ADDITIONAL GENERATOR DAMAGE, AND TO MINIMIZE THE PRIMARY PLANT TRANSIENT. BECAUSE OF THE AUTOMATIC ACTUATION OF THE RPS, THE EVENT IS REPORTABLE IN ACCORDANCE WITH THE CODE OF FEDERAL REGULATIONS, 10 CFR 50.73(A)(2)(IV).

[213] SALEM 1 DOCKET 50-272 LER 84-007 REV 1  
 UPDATE ON CONTAINMENT ISOLATION VALVES LEAKING.  
 EVENT DATE: 030684 REPORT DATE: 031985 NSSS: WE TYPE: PWR  
 VENDOR: VELAN VALVE CORP.

(NSIC 196413) ON MARCH 6, 1984, DURING A REFUELING OUTAGE, PSE&G COMMENCED ROUTINE PERIODIC LEAK RATE TESTING OF TYPE C COMPONENTS; AT WHICH TIME, A CHECK VALVE (1SA119) LOCATED INSIDE CONTAINMENT AND IN THE CONTAINMENT STATION AIR SUPPLY LINE, EXHIBITED A LEAKAGE RATE GREATER THAN THE CAPACITY OF THE LEAK RATE TEST EQUIPMENT. BECAUSE OF THIS, THE ACTUAL LEAK RATE AND THE TOTAL COMBINED LEAKAGE OF ALL TYPE B AND C COMPONENTS COULD NOT BE VERIFIED TO BE WITHIN SPECIFICATIONS. LEAK RATE TESTING CONTINUED AND, ALTHOUGH THE LEAK RATE OF SEVERAL VALVES EXCEEDED ADMINISTRATIVE LIMITS, TOTAL LEAKAGE FOR EACH PENETRATION WAS WITHIN ALLOWABLE LIMITS. OTHER VALVES LEAKING WERE: STEAM GENERATOR BLOWDOWN ISOLATION VALVES 11 THROUGH 14GB4; VALVE 12VC19 IN THE POST LOCA AIR SAMPLING LINE PENETRATION; VALVE 1WL96 IN THE REACTOR COOLANT DRAIN TANK GAS ANALYZER SAMPLE LINE PENETRATION; AND VALVE 1WR80 IN THE PRIMARY MAKEUP WATER SUPPLY LINE PENETRATION. ALL VALVES INVOLVED WERE REPAIRED AND SATISFACTORILY TESTED. ON AUGUST 24, 1984, THE FINAL RESULTS OF TYPE B AND C LEAK RATE TESTING DEMONSTRATED THAT COMBINED LEAKAGE WAS WITHIN SPECIFICATION.

[214] SALEM 1 DOCKET 50-272 LER 84-008 REV 1  
 UPDATE ON WELD AREA DEGRADATION OF CCW HEAT EXCHANGER SERVICE WATER PIPING.  
 EVENT DATE: 030984 REPORT DATE: 042985 NSSS: WE TYPE: PWR  
 VENDOR: PULLMAN PWR PROD CORP

(NSIC 196192) ON 3-9-84, DURING A REFUELING OUTAGE, RADIOGRAPHY OF 16 WELDS IN THE SERVICE WATER PIPING ASSOCIATED WITH NO. 12 COMPONENT COOLING WATER (CCW) HEAT EXCHANGER REVEALED POSSIBLE INDICATIONS IN THE VICINITY OF 9 OF THE WELDS. THIS RADIOGRAPHY WAS PERFORMED AS THE RESULT OF WELD REPAIRS WHICH WERE EFFECTED

DURING THE PREVIOUS REFUELING OUTAGE. FURTHER ANALYSIS REVEALED THAT PITTING CORROSION WAS OCCURRING IN THE HEAT AFFECTED ZONE OF THE WELDS, ALTHOUGH THE WELDS THEMSELVES WERE IN EXCELLENT CONDITION. A COMPLETE MAPPING OF THE STAINLESS STEEL PIPING WAS PERFORMED AND INDICATED THAT THE PITTING DAMAGE WAS NOT CONFINED TO THE WELD AREAS ALONE, BUT WAS RATHER EXTENSIVE THROUGHOUT THE PIPING. BECAUSE OF THE DEGRADED CONDITION OF THIS SAFETY-RELATED SYSTEM, THE EVENT WAS ORIGINALLY REPORTED IN ACCORDANCE WITH 10 CFR 50.73(A)(2)(V). THIS SUPPLEMENTAL REPORT IDENTIFIES THE CAUSE AND CORRECTIVE ACTION TAKEN AS A RESULT OF THAT OCCURRENCE. THE PITTING CORROSION WAS DETERMINED TO HAVE BEEN CAUSED BY THE LOW VELOCITY BRACKISH WATER IN CONTACT WITH THE STAINLESS STEEL PIPING. DESIGN CHANGE REQUEST 1EC-1874 WAS ISSUED AND IMPLEMENTED WHICH REPLACED THE STAINLESS STEEL PIPE ASSOCIATED WITH NO. 12 COMPONENT HEAT EXCHANGER WITH CARBON STEEL PIPE COATED WITH A POLYETHYLENE COPOLYMER COATING.

[215] SALEM 1 DOCKET 50-272 LER 85-009  
CONTINUOUS FIRE WATCH NOT MAINTAINED IN DIESEL GENERATOR AREA.  
EVENT DATE: 091385 REPORT DATE: 101185 NSSS: WE TYPE: PWR

(NSIC 196436) ON 9-13-85, THE AUTOMATIC ACTUATION FEATURE OF 1C DIESEL LOW PRESSURE CARBON DIOXIDE FIRE SUPPRESSION SYSTEM WAS DEFEATED FOR DIESEL MAINTENANCE. PER TECH SPEC REQUIREMENTS, A FIRE WATCH WAS POSTED DURING THE MAINTENANCE ACTIVITIES. HOWEVER, THE FIRE WATCH LEFT HIS POST AT THE END OF SHIFT, APPROX 1 1/2 HRS PRIOR TO THE FIRE SUPPRESSION SYSTEM BEING RESTORED TO AN OPERABLE STATUS. THE ROOT CAUSE OF THIS EVENT WAS THE LACK OF COORDINATION BETWEEN THE MAINTENANCE SUPERVISOR AND THE OPERATIONS SHIFT SUPERVISOR. THE MAINTENANCE SUPERVISOR FAILED TO AUTHORIZE OVERTIME OR TO MAKE ARRANGEMENTS FOR A RELIEF IN THE EVENT THAT THE TAGS WERE NOT CLEARED BY THE END OF THE SHIFT. THE SHIFT SUPERVISOR, IN TURN, DID NOT INFORM THE MAINTENANCE SUPERVISOR THAT THE TAGS WOULD NOT BE CLEARED BY THE END OF THE SHIFT. MANUAL ACTUATION OF THE FIRE SUPPRESSION SYSTEM WAS POSSIBLE; HOWEVER, WITHOUT THE REQUIRED FIRE WATCH PRESENT, ACTUATION OF THE SYSTEM WOULD HAVE BEEN DELAYED IN THE EVENT A FIRE HAD OCCURRED. SUPERVISORS HAVE BEEN DIRECTED TO MAINTAIN ALL FIRE WATCHES ON POST UNTIL SUCH TIME THAT THEY ARE RELIEVED, AND THAT FIRE IMPAIRMENT TAGGING RELEASES SHOULD BE HANDLED IN AN EXPEDITIOUS MANNER. IN ADDITION, APPROPRIATE TRAINING PROGRAMS WILL BE UPGRADED TO EMPHASIZE THE DUTIES AND RESPONSIBILITIES OF THE FIRE WATCHES, AND OF THE SUPERVISORS SUPPLYING THE FIRE WATCHES.

[216] SALEM 2 DOCKET 50-311 LER 85-015  
REACTOR COOLANT SYSTEM UNIDENTIFIED LEAKAGE GREATER THAN TECHNICAL SPECIFICATION LIMIT.  
EVENT DATE: 072085 REPORT DATE: 081985 NSSS: WE TYPE: PWR  
VENDOR: ROCKWELL-INTERNATIONAL

(NSIC 196280) ON 7-20-85 FOLLOWING THE COMPLETION OF A ROUTINE RCS WATER INVENTORY BALANCE SURVEILLANCE, RCS UNIDENTIFIED LEAKAGE WAS DETERMINED TO BE 1.001 GPM; THE MAXIMUM ALLOWED BY TECH SPECS IS 1.0 GPM. ACTION STATEMENT 3.4.7.2.B WAS ENTERED, AND A CONTROLLED SHUTDOWN WAS INITIATED IN ACCORDANCE WITH THE ACTION REQUIREMENTS. INVESTIGATION REVEALED THE PACKING GLANDS ON 2PR9 (PRESSURIZER SAFETY VALVE LOOP SEAL DRAIN VALVE) AND 2PS8 (PRESSURIZER INSTRUMENTATION TAP) TO BE THE SOURCE OF THE LEAKAGE. THE LEAKS WERE TERMINATED BY ADJUSTMENT OF THE PACKING ON BOTH VALVES. FOLLOWING THE COMPLETION OF A RCS WATER INVENTORY BALANCE, WHICH VERIFIED THAT RCS UNIDENTIFIED LEAKAGE WAS LESS THAN 1.0 GPM, ACTION STATEMENT 3.4.7.2.B WAS TERMINATED. THE LEAK, WHICH WAS DISCOVERED BY THE PERFORMANCE OF ROUTINE SURVEILLANCE, WAS IDENTIFIED EARLY; I.E., WHEN UNIDENTIFIED LEAKAGE JUST EXCEEDED THE ALLOWABLE LIMIT OF 1.0 GPM. BECAUSE OF TECH SPEC REQUIREMENTS, A SHUTDOWN WAS INITIATED, AND BECAUSE THAT SHUTDOWN WAS COMPLETED, THE EVENT IS REPORTABLE IN ACCORDANCE WITH THE REQUIREMENTS OF 10CFR50.73(A)(2)(I)(A).

[217] SALEM 2 DOCKET 50-311 LER 85-017  
 LOOSE CONNECTION ON REACTOR TRIP BREAKERS' UNDERVOLTAGE MECHANISM CAUSES SCRAM.  
 EVENT DATE: 080885 REPORT DATE: 090685 NSSS: WE TYPE: PWR  
 VENDOR: MASONEILAN INTERNATIONAL, INC.

(NSIC 196340) ON 8-8-85 A REACTOR TRIP OCCURRED WHEN REACTOR TRIP BREAKER 'A' AUTOMATICALLY OPENED WHILE TESTING SOLID STATE PROTECTION SYSTEM TRAIN 'B'. THE REACTOR TRIP WAS CAUSED BY A LOOSE WIRE WHICH SUPPLIES POWER TO THE UNDERVOLTAGE TRIP MECHANISM ASSOCIATED WITH REACTOR TRIP BREAKER 'A'. THE CAUSE FOR THE LOOSE CONNECTION COULD NOT BE DETERMINED. FOLLOWING THE TRIP, THE ATMOSPHERIC STEAM RELIEF VALVES (MS10 VALVES) DID NOT OPEN AUTOMATICALLY UPON INCREASING STEAM PRESSURE, RESULTING IN MAIN STEAM CODE SAFETY VALVE ACTUATIONS. THE MS10 VALVES WERE OPENED MANUALLY, AND THE SAFETY VALVES RESEATED. TESTING VERIFIED THAT THE MS10 VALVES ACTUATE AUTOMATICALLY; HOWEVER, THERE IS AN INHERENT TIME DELAY ASSOCIATED WITH THE VALVE CONTROLLERS. THE RPS FUNCTIONED AS DESIGNED FOLLOWING THE INADVERTENT ACTUATION OF THE UNDERVOLTAGE TRIP MECHANISM. NO CREDIT IS TAKEN FOR THE OPERATION OF THE MS10 VALVES IN ANY OF THE ACCIDENT ANALYSES. THE MAIN STEAM CODE SAFETY VALVES ARE REQUIRED TO OPERATE TO TERMINATE SG PRESSURE TRANSIENTS, AND THE SAFETY VALVES FUNCTIONED AS DESIGNED. THE LEAD SUPPLYING THE UNDERVOLTAGE TRIP MECHANISM ASSOCIATED WITH REACTOR TRIP BREAKER 'A' WAS TIGHTENED, AND THE REACTOR TRIP BREAKERS WERE TESTED WITH SATISFACTORY RESULTS. THE PERFORMANCE OF THE MS10 VALVES IS BEING STUDIED AND EVALUATED AT THIS TIME.

[218] SAN ONOFRE 1 DOCKET 50-206 LER 85-013  
 CONTROL ROD POSITION VERIFICATION SURVEILLANCE DEFICIENCY.  
 EVENT DATE: 071985 REPORT DATE: 081685 NSSS: WE TYPE: PWR

(NSIC 196199) ON 7-19-85, AT 1406, DURING AN INVESTIGATION INTO A SPURIOUS ROD BOTTOM LIGHT, IT WAS DISCOVERED THAT 3 OF 18 SWITCHES TO THE CONTROL ROD POSITION RECORDER YR-404 WERE ALIGNED TO THE NON-INDICATING POSITIONS WHICH PREVENTED THE PRINT-OUT OF 6 ROD POSITIONS. AT 1409, THE SWITCHES WERE RETURNED TO THEIR NORMAL POSITION AND THE SHIFTLY SURVEILLANCE FOR CONTROL ROD POSITION VERIFICATION WAS PERFORMED SATISFACTORILY. SUBSEQUENT INVESTIGATION DETERMINED THAT THE 3 SWITCHES WERE INADVERTENTLY LEFT IN THE BYPASS POSITION ON 7-17-85 AT 2336, THEREFORE, THIS CONDITION EXISTED FOR 4 SHIFTS WITHOUT BEING DETECTED. THIS IS CONTRARY TO TECH SPEC SURVEILLANCE REQUIREMENTS 4.1.1.E AND 4.1.1.F, WHICH REQUIRE SHIFTLY VERIFICATION THAT ALL CONTROL ROD POSITION INDICATORS ARE OPERABLE AND CONTROL RODS ARE WITHIN INSERTION LIMITS. THE CAUSE OF THIS EVENT WAS PROCEDURAL INADEQUACY AND THE LACK OF SPECIFIC TRAINING ON THE IMPLEMENTATION OF OPERATING INSTRUCTION S01-12.1-5, 'CONTROL ROD POSITION VERIFICATION.' OPERATORS ASSUMED THAT ALL ROD POSITIONS WERE PRINTING OUT ON RECORDER YR-404. ALTHOUGH S01-12.1-5 REQUIRES INDIVIDUAL ROD POSITIONS TO BE VERIFIED, NO FORMAL METHOD TO ACCOMPLISH THIS IS PROVIDED. A SPECIAL ORDER WAS ISSUED TO RESTRICT THE OPERATION OF THE BYPASS SWITCHES TO YR-404 AND TO STRESS THE IMPORTANCE OF ATTENTION TO DETAIL WHILE PERFORMING ROUTINE SURVEILLANCES.

[219] SAN ONOFRE 3 DOCKET 50-362 LER 85-025  
 SPURIOUS RADIATION MONITOR SIGNAL CAUSES CONTAINMENT PURGE ISOLATION.  
 EVENT DATE: 091685 REPORT DATE: 101685 NSSS: CE TYPE: PWR

(NSIC 196243) ON 9-16-85 AT 0140, WITH UNIT 3 IN MODE 3 AND A MINIPURGE IN PROGRESS, TRAIN 'A' CONTAINMENT PURGE ISOLATION SYSTEM (CPIS) WAS SPURIOUSLY ACTUATED BY A SIGNAL FROM CONTAINMENT AREA RADIATION MONITOR 3RI-7856. THIS EVENT COINCIDED WITH THE ROUTINE ONCE-PER-SHIFT SURVEILLANCE ON THE MONITOR. CONTAINMENT RADIATION LEVELS WERE VERIFIED TO BE BELOW THE CPIS ACTUATION SETPOINT. THE CPIS WAS RESET AND CONTAINMENT MINIPURGE WAS RESUMED. TESTING AND EVALUATION WAS UNABLE TO DETERMINE THE CAUSE OF THE ACTUATION; ELECTRICAL NOISE MAY HAVE ACTUATED THE MONITOR. ELECTRICAL NOISE HAS BEEN A RECURRING PROBLEM AT UNIT 2, AS INITIALLY REPORTED IN LER 84-002 AND MOST RECENTLY REPORTED IN LER

85-044. A PRELIMINARY INVESTIGATION HAS BEEN COMPLETED AND THE LICENSEE IS CURRENTLY PERFORMING A DETAILED STUDY OF THE PLANT GROUND SYSTEM. COMPLETION OF THE GROUND SYSTEM STUDY IS SCHEDULED FOR 11-1-85, AND UPON DETERMINATION OF CORRECTIVE ACTION, WE WILL SUBMIT A REV TO LER 84-002.

[220] SAN ONOFRE 3 DOCKET 50-362 LER 85-029  
 FAILED SNUBBERS DISCOVERED DURING 18 MONTH SNUBBER SURVEILLANCE.  
 EVENT DATE: 092785 REPORT DATE: 102585 NSSS: CE TYPE: PWR  
 VENDOR: PACIFIC SCIENTIFIC COMPANY

(NSIC 196447) ON 9-27-85 WITH UNIT 3 IN COLD SHUTDOWN AND WITH THE 18 MONTH SNUBBER SURVEILLANCE IN PROGRESS, A MECHANICAL PACIFIC SCIENTIFIC SNUBBER WAS FOUND FAILED DUE TO INSTALLATION DAMAGE. SINCE THAT TIME, 22 ADDITIONAL SNUBBERS HAVE BEEN IDENTIFIED AS BEING FAILED. THE CAUSE OF THESE FAILURES WERE 2 FROM VIBRATION, 6 FROM INSTALLATION, 2 FROM ENVIRONMENTAL DEGRADATION, AND 12 FROM TRANSIENT DAMAGE. IN ADDITION, CONTRARY TO TECH SPEC 4.7.6.B, ONE SNUBBER WAS IDENTIFIED AS HAVING MISSED VISUAL SURVEILLANCE IN 2-85, DUE TO ADMINISTRATIVE OVERSIGHT. THIS OVERSIGHT HAS BEEN CORRECTED AND THIS SNUBBER HAS SUBSEQUENTLY BEEN SURVEILLED SATISFACTORILY. AS CORRECTIVE ACTION, ALL DEFICIENT SNUBBERS IDENTIFIED HAVE BEEN REPLACED AND AN ENGINEERING EVALUATION OF THE EFFECTS OF THESE SNUBBERS ON THEIR PIPING SYSTEMS AND SUPPORTS IS BEING PERFORMED. THE 18 MONTH SNUBBER SURVEILLANCE IS STILL IN PROGRESS AND WILL BE COMPLETED, INCLUDING ALL ENGINEERING ANALYSES, PRIOR TO THE COMPLETION OF THE CURRENT REFUELING OUTAGE. UPON COMPLETION, THIS LER WILL BE REVISED AND THE RESULTS OF THE ANALYSES AND ANY ADDITIONAL CORRECTIVE ACTIONS WILL BE REPORTED. THE ENGINEERING ANALYSES, WHICH HAVE BEEN COMPLETED THUS FAR HAVE SHOWN ALL SYSTEMS BEING CAPABLE OF PERFORMING THEIR SAFETY FUNCTIONS. NO OPERATIONAL MODE WILL BE ENTERED FOR WHICH THE ENGINEERING ANALYSES FOR SYSTEMS REQUIRED TO BE OPERABLE IN THAT MODE HAVE NOT BEEN COMPLETED.

[221] SEQUOYAH 1 DOCKET 50-327 LER 84-045 REV 1  
 UPDATE ON INOPERABLE AUXILIARY CONTROL AIR COMPRESSORS.  
 EVENT DATE: 070984 REPORT DATE: 080685 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: SEQUOYAH 2 (PWR)  
 VENDOR: INGERSOLL-RAND CO.

(NSIC 196197) POWER LEVEL - 100% (UNIT 1); 100% (UNIT 2). ON 6-25-84, THE A-A AUX CONTROL AIR COMPRESSOR WAS TAKEN OUT OF SERVICE FOR MAINTENANCE. DUE TO INSUFFICIENT SPARE PARTS, IT WAS NOT RETURNED TO SERVICE. ON 7-9-84, AT 0750 CST, THE B-B AUX CONTROL AIR COMPRESSOR WAS REMOVED FROM SERVICE. THESE COMPRESSORS ARE NOT TECH SPEC EQUIPMENT BUT ARE ATTENDANT EQUIPMENT FOR VARIOUS SAFETY SYSTEMS (AUX FEEDWATER BEING THE MOST LIMITING WITH RESPECT TO ACTION TIMES). WITH BOTH TRAINS INOPERABLE, IT WAS DETERMINED THAT ENTRY INTO LCO 3.0.3 SHOULD BE MADE, AND 3.0.3 WAS ENTERED AT 0750 CST ON 7-9-84. POWER REDUCTION TO MODE 3 WAS INITIATED FOR BOTH UNITS 1 AND 2 BUT WAS STOPPED AT 88% WHEN THE B-B COMPRESSOR WAS RETURNED TO SERVICE.

[222] SEQUOYAH 1 DOCKET 50-327 LER 84-055 REV 1  
 UPDATE ON BREACH OF AUXILIARY BUILDING SECONDARY CONTAINMENT ENCLOSURE.  
 EVENT DATE: 082084 REPORT DATE: 113084 NSSS: WE TYPE: PWR

(NSIC 196263) THIS LER REV PROVIDES ADDITIONAL DETAILS ON AUXILIARY BUILDING SECONDARY CONTAINMENT ENCLOSURE (ABSCE) BREACHES WHICH OCCURRED ON 8-17-84 AND 8-20-84 INVOLVING DOORS A208 AND A209 (PREVIOUSLY REPORTED INCORRECTLY AS A206 AND A207). WORK WAS BEING PERFORMED ON THE AUX BLDG ROOF, WHICH REQUIRED ACCESS THROUGH THE 2 DOORS WHICH ARE ARRANGED IN AN AIRLOCK CONFIGURATION. THE OUTER DOOR IS A VITAL AREA BOUNDARY DOOR AND WAS UNLOCKED USING ADMINISTRATIVE CONTROLS. THE PERSONNEL WORKING AT THIS LOCATION FAILED TO REALIZE THE DOORS

WERE AN ABSCE BOUNDARY AND OPENED BOTH DOORS. THE BREACHES CAN BE ATTRIBUTED TO 1) LACK OF KNOWLEDGE OF THE PERSONNEL INVOLVED TO REALIZE THE ABSCE BOUNDARY WAS LOCATED AT THESE DOORS, 2) FAILURE OF PROCEDURES TO ADEQUATELY ADDRESS ABSCE REQUIREMENTS, AND 3) FAILURE OF COMMUNICATION BETWEEN SUPPORT GROUPS AND PERSONNEL WITHIN THESE GROUPS. THIS CONFIGURATION WOULD HAVE PREVENTED THE AUX BLDG GAS TREATMENT SYSTEM (ABGTS) FROM MAINTAINING A MINUS 1/4-INCH WATER GAUGE PRESSURE AS REQUIRED PER TECH SPEC 3.7.8, SURVEILLANCE 4.7.8.D.3.

[223] SEQUOYAH 1 DOCKET 50-327 LER 85-030  
 TRIP OF MAIN FEEDWATER PUMPS STARTS AUXILIARY FEEDWATER.  
 EVENT DATE: 072185 REPORT DATE: 081285 NSSS: WE TYPE: PWR  
 VENDOR: FISHER CONTROLS CO.

(NSIC 196229) ON 7-21-85, TWO EVENTS OCCURRED WHILE IN MODE 2 WHICH INITIATED AN ENGINEERED SAFETY ACTUATION FOR AUX FEEDWATER PUMP START. THE FIRST EVENT OCCURRED DUE TO LOSS OF BOTH MAIN FEED PUMPS WHICH WERE ONLY ON TURBINE GEAR; HOWEVER, WHEN THEY TRIPPED, THIS ACTUATED START OF AUX FEEDWATER. THE CAUSE OF THE FIRST EVENT WAS DUE TO THE CONDENSATE DUMP BACK VALVE FROM THE HOTWELL MOMENTARILY FAILING TO THE OPEN POSITION (LCV-2-3) RESULTING IN A FLUCTUATION IN THE CONDENSATE SYSTEM. SINCE THE SEAL INJECTION WATER IS FED FROM THE CONDENSATE SYSTEM, THIS CAUSED A MOMENTARY DROP IN SEAL INJECTION WATER PRESSURE (SETPOINT AT 220 PSI) AND SUBSEQUENT TRIPPING OF THE MFP'S. THE SECOND EVENT WAS DUE TO A HIGH-HIGH LEVEL IN SG LOOP 4 CAUSED BY A LEAKING FEEDWATER REGULATOR VALVE. FOR BOTH EVENTS, THE REACTOR WAS NOT AFFECTED, THE UNIT REMAINED IN MODE 2, AND THE OPERATOR ACTION STABILIZED THE SECONDARY SIDE.

[224] SEQUOYAH 1 DOCKET 50-327 LER 85-032  
 EGTS INSTRUMENTATION FAILS TO MEET ENVIRONMENTAL QUALIFICATION REQUIREMENTS.  
 EVENT DATE: 081685 REPORT DATE: 091385 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: SEQUOYAH 2 (PWR)

(NSIC 196441) AT 1400 CST, ON 8-16-85 BOTH TRAINS OF THE EMERGENCY GAS TREATMENT SYSTEM WERE DECLARED INOPERABLE DUE TO FAILURE TO MEET ENVIRONMENTAL QUALIFICATION FOR INSTRUMENTATION. THE PRESSURE DIFFERENTIAL TRANSMITTERS, WHICH CONTROL THE ANNULUS VACUUM, ARE LOCATED DIRECTLY BELOW THE RHR AND CONTAINMENT SPRAY LINES ON ELEVATION 714 IN THE AUX BLDG. DURING THE RECIRCULATION PHASE FOLLOWING A LOCA, THE RADIATION LEVELS IN THIS AREA WILL SIGNIFICANTLY INCREASE, AND THIS WAS NOT CONSIDERED IN THE INITIAL QUALIFICATION OF THESE TRANSMITTERS. A NIGHT ORDER WAS ISSUED 8-16-85, TO HAVE THE OPERATOR CHANGE THE PRESSURE DIFFERENTIAL INDICATING CONTROLLER'S (PDIC) SETPOINT TO 0.8 INCH OF WATER (13.37% ON THUMB WHEEL INDICATOR) IN THE EVENT OF A LOCA PRIOR TO ALIGNING THE CONTAINMENT SPRAY SYSTEM TO THE CONTAINMENT SUMP. ALSO REPORTABLE PER 10 CFR 50.72, PARAGRAPH B.2.III.

[225] SEQUOYAH 2 DOCKET 50-328 LER 84-013 REV 1  
 UPDATE ON RUPTURE OF PRESSURIZER RELIEF TANK (PRT) DISC.  
 EVENT DATE: 082084 REPORT DATE: 020885 NSSS: WE TYPE: PWR  
 VENDOR: BLACK-SIVALS-BRYSON  
 CROSBY VALVE

(NSIC 196418) DURING NORMAL PLANT OPERATIONS ON 08/20/84, UNIT 2 EXPERIENCED A RUPTURE OF THE PRESSURIZER RELIEF TANK (PRT) RUPTURE DISC AT 1203 CST. THIS RESULTED IN A CONTAINMENT VENTILATION ISOLATION AND THE SHUTDOWN OF THE UNIT WAS INITIATED AND THE UNIT COMPLIED WITH THE RADIOLOGICAL EMERGENCY PLAN FOR AN UNUSUAL EVENT. THE FAILURE OF THE PRT DISC RUPTURE WAS CAUSED BY A LEAKING PRESSURIZER SAFETY VALVE WHICH RELIEVES TO THE PRT. UPON RUPTURE OF THE PRT DISC, THE CONTAINMENT RADIATION LEVELS INCREASED TO THE LOWER COMPARTMENT SETPOINTS AND GENERATED THE SIGNAL FOR THE CVI. ALSO, THE CONTAINMENT PRESSURE

INCREASED TO 0.35 PSID WHICH EXCEEDED LCO LIMITS OF 0.3 PSID. THE INCREASE IN PRESSURE WAS REDUCED BY THE AUTOMATIC OPENING OF THE ICE CONDENSER DOORS AND STARTING OF ADDITIONAL LOWER COMPARTMENT FANS BY OPERATOR ACTION. AFTER COMPLETION OF UNIT SHUTDOWN, BOTH PRT RUPTURE DISCS AND THE LEAKING SAFETY VALVES WERE REPLACED.

[226] SHOREHAM DOCKET 50-322 LER 85-032  
HPCI ISOLATION DUE TO LEAKING TURBINE EXHAUST DIAPHRAGM.  
EVENT DATE: 082285 REPORT DATE: 092085 NSSS: GE TYPE: BWR

(NSIC 196344) ON 8-22-85 AT 0223, A HPCI TURBINE EXHAUST DIAPHRAGM HIGH PRESSURE 'B' SIDE SIGNAL WAS INITIATED AND RESULTED IN THE OUTBOARD ISOLATION OF THE HPCI SYSTEM. THE PLANT WAS IN OPERATIONAL CONDITION 2 WITH AN RPV PRESSURE OF 929 PSIG. THE HPCI SYSTEM WAS DECLARED INOPERABLE PRIOR TO THE OCCURRENCE OF THE EVENT DUE TO STARTUP TESTING ON THE HPCI PUMP. THE ISOLATION OCCURRED WHILE AN OPERATOR WAS INCREASING THE HPCI TURBINE SPEED TO ACHIEVE A PUMP DISCHARGE PRESSURE OF 100 PSIG ABOVE THE RPV PRESSURE DURING A STARTUP TEST PROCEDURE FOR CONTROLLER STEP RESPONSE. DUE TO AN APPARENT SMALL LEAK IN THE EXHAUST DIAPHRAGM (RUPTURE DISK E41\*RD-001), A SMALL BUILDUP OF WATER OCCURRED IN THE INSTRUMENT PRESSURE SENSING LINES. THE PRESSURE BUILDUP ASSOCIATED WITH THE APPARENT LEAK, COMBINED WITH THE HEAD OF WATER, CAUSED THE EXHAUST DIAPHRAGM PRESSURE SWITCHES TO TRIP WHICH RESULTED IN THE CLOSING OF THE STEAM SUPPLY ISOLATION VALVES TO THE TURBINE. THE HPCI TURBINE TRIPPED AND THE SYSTEM WAS ISOLATED. THE TEST WAS THEN TERMINATED. PLANT MANAGEMENT WAS NOTIFIED OF THE EVENT AND THE NRC WAS NOTIFIED PER 10CFR50.72. THE RUPTURE DISK WAS REPLACED AND THE PRESSURE SWITCHES WERE RECALIBRATED.

[227] SHOREHAM DOCKET 50-322 LER 85-033  
OPERATOR ERROR CAUSES RBCLCW TO SHIFT TO ACCIDENT MODE.  
EVENT DATE: 082585 REPORT DATE: 092485 NSSS: GE TYPE: BWR

(NSIC 196345) ON 8-25-85 AT 1716, THE REACTOR BLDG CLOSED LOOP COOLING WATER (RBCLCW) INADVERTENTLY CHANGED TO ITS ACCIDENT MODE. THE PLANT WAS IN OPERATIONAL CONDITION 4. WHILE PERFORMING THE SWITCHING ASSOCIATED WITH A STATION EQUIPMENT CLEARANCE PERMIT (SECP), AN OPERATOR OPENED THE BREAKER WHICH SUPPLIES 120VAC POWER TO THE LEVEL SWITCHES (P42\*LS-012B AND 013B) FOR RBCLCW HEAD TANK 'B' SIDE (P42\*TK-026B). THIS SIMULATED A LOW LEVEL IN THE TANK AND PLACED THE RBCLCW SYSTEM IN THE ACCIDENT MODE ('B' SIDE). THE SYSTEM ISOLATED INTO 2 SEPARATE, INDEPENDENT LOOPS BY AUTOMATICALLY CLOSING THE HEADER CROSS-CONNECT VALVES ON THE SUCTION AND DISCHARGE HEADERS OF THE RBCLCW HEAT EXCHANGERS AND PUMPS ON THE 'B' SIDE. THE BREAKER WAS RECLOSED AND THE AFFECTED VALVES WERE REPOSITIONED TO THEIR POSITION PRIOR TO THE EVENT. FURTHER INVESTIGATION DETERMINED THAT THE POOR COPY QUALITY OF THE DRAWING THAT WAS UTILIZED TO GENERATE THE SECP LED THE OPERATIONS PERSONNEL TO INCORRECTLY IDENTIFY THE BREAKER WHICH WAS SUPPOSED TO HAVE BEEN OPENED. TO PREVENT RECURRENCE, THIS REPORT WILL BE PLACED ON THE REQUIRED READING LIST FOR ALL OPERATIONS SHIFT PERSONNEL AND THE CONTROL ROOM DRAWINGS WILL BE REVIEWED FOR CLARITY. THIS REVIEW WILL BE COMPLETED BY 10-30-85.

[228] SHOREHAM DOCKET 50-322 LER 85-034  
DIESEL SERVICE WATER STANDPIPE HINGED CAP WEDGED SHUT.  
EVENT DATE: 082885 REPORT DATE: 092685 NSSS: GE TYPE: BWR

(NSIC 196346) ON 8-28-85 AT 1330, THE HINGED CAP ON THE SERVICE WATER STANDPIPE, LOCATED OFF THE SERVICE WATER DISCHARGE LINE FOR EMERGENCY DIESEL 101, WAS FOUND TO BE WEDGED SHUT. THIS CAP PROVIDES A FLOW PATH FOR THE SERVICE WATER TO THE EDG FOLLOWING A SEISMIC EVENT. SINCE PORTIONS OF THE SERVICE WATER SYSTEM DISCHARGE LINE ARE NOT SEISMICALLY QUALIFIED AND MUST BE CONSIDERED LOST DURING A

SEISMIC EVENT, THIS HINGED CAP/STANDPIPE ARRANGEMENT PROVIDES AN ALTERNATE FLOW PATH FOR SERVICE WATER IN THE EVENT THERE IS A SEISMIC EVENT WHICH DESTROYS THE NORMAL OVERBOARD DISCHARGE PATH. THE PLANT WAS IN OPERATIONAL CONDITION 4 AT THE TIME. THE 18 MONTH SURVEILLANCE REQUIREMENT FOR THIS CAP WAS MET ON 4-16-84, SO THE WEDGE WAS ASSUMED TO BE INSTALLED SOMETIME AFTER THIS DATE. IN BETWEEN THIS SURVEILLANCE DATE AND DISCOVERY DATE, THE PLANT WAS PERIODICALLY IN OPERATIONAL CONDITION 2, REQUIRING 3 EDG'S TO BE OPERABLE (PER TECH SPECS 3.8.1). SINCE THE HINGED CAP WAS WEDGED SHUT, THERE WOULD HAVE BEEN NO SERVICE WATER FLOWPATH TO THE EDG 101 IF THERE HAD BEEN A SEISMIC EVENT DURING THIS PERIOD THAT RESULTED IN LOSS OF THE NORMAL DISCHARGE FLOW PATH. THE WEDGE WAS REMOVED AND THE TEMPORARY SCAFFOLDING WAS REMOVED TO PREVENT IMMEDIATE ACCESS TO THE STANDPIPES. ALTHOUGH THE EVENT OCCURRED WHILE THE PLANT WAS IN OPERATIONAL CONDITION 4, THE LICENSEE DETERMINED THAT A VOLUNTARY REPORT WAS WARRANTED.

[229] SHOREHAM DOCKET 50-322 LER 85-035  
LOSS OF INSTRUMENT AIR CAUSES MANUAL REACTOR SCRAM.  
EVENT DATE: 083185 REPORT DATE: 092685 NSSS: GE TYPE: BWR

(NSIC 196396) ON AUGUST 31, 1985 AT 0332 A.M., THE OPERATOR MANUALLY INITIATED THE REACTOR PROTECTION SYSTEM (RPS) AFTER HAVING RECEIVED A SCRAM PILOT VALVE AIR HEADER PRESSURE LOW ALARM AND A CONTROL ROD DRIFT ALARM. THE PLANT WAS IN OPERATIONAL CONDITION 2. LOSS OF INSTRUMENT AIR PRESSURE TO THE SCRAM PILOT AIR HEADER WAS CAUSED BY CLOGGING OF THE INSTRUMENT AIR DRYER AFTERFILTER WHICH RESULTED FROM IMPROPERLY REPLACED DESICCANT IN THE DRYER UNIT. THE VENDOR MANUAL WAS INADEQUATE IN THAT IT DID NOT CLEARLY SPECIFY THAT AN ALUMINUM OXIDE BUFFER WAS TO BE LAYERED IN WITH THE SILICA GEL DESICCANT. TO PREVENT RECURRENCE, INSTRUCTIONS WILL BE GENERATED TO INDICATE PROPER DESICCANT REPLACEMENT. THE PM PROGRAM WILL BE REVIEWED TO INSURE PROPER TIME CYCLE FOR CHANGE OUT AND INSPECTION OF FILTERS AND STRAINERS. ENGINEERING WILL BE REQUESTED TO EVALUATE THE NEED FOR DIFFERENTIAL PRESSURE GAUGES ON FILTERS AND DRYER TOWERS TO ALLOW FOR TROUBLE SHOOTING.

[230] SHOREHAM DOCKET 50-322 LER 85-036  
FOUR REACTOR WATER CLEANUP ISOLATIONS OCCUR WHILE ADJUSTING BLOWDOWN FLOW.  
EVENT DATE: 090385 REPORT DATE: 100385 NSSS: GE TYPE: BWR

(NSIC 196347) FOUR RWCU INBOARD ISOLATIONS OCCURRED DUE TO RWCU HIGH DELTA-FLOW TRIPS. THE FIRST 2 OCCURRED WHILE THE PLANT WAS IN OPERATIONAL CONDITION 2 (ONE ON 9-3-85 AT 2320, ANOTHER ON 9-25-85 AT 2215), THE THIRD OCCURRED ON 9-27-85 AT 0432 IN OPERATIONAL CONDITION 3 AND THE FOURTH OCCURRED 10-1-85 AT 0357 IN OPERATIONAL CONDITION 4. ALL 4 ISOLATIONS WERE ATTRIBUTED TO PROBLEMS IN THE FLOW SENSING CIRCUITRY WHILE THE OPERATOR WAS ADJUSTING BLOWDOWN FLOW TO THE MAIN CONDENSER. A RWCU INBOARD LEAKAGE HIGH ISOLATION ALARM WAS RECEIVED. IMMEDIATE ACTION VERIFIED THAT THERE WAS NO LEAKAGE IN THE SYSTEM. THE SYSTEM WAS RETURNED TO NORMAL. CALIBRATION AND RECALIBRATION OF INDIVIDUAL COMPONENTS IN THE RWCU FLOW SENSING CIRCUITRY IS CURRENTLY BEING PERFORMED AND A SUPPLEMENTAL REPORT WILL BE FORTHCOMING ONCE THE CORRECTIVE ACTION HAS BEEN COMPLETED, AND A MORE DEFINITE CAUSE HAS BEEN IDENTIFIED.

[231] SHOREHAM DOCKET 50-322 LER 85-037  
TECHNICIAN ERROR CAUSES FALSE LOW REACTOR LEVEL SIGNAL AND REACTOR SCRAM.  
EVENT DATE: 090685 REPORT DATE: 100385 NSSS: GE TYPE: BWR  
VENDOR: BARTON INSTRUMENT CO., DIV OF ITT

(NSIC 196348) ON 9-6-85 AT 1307 AN I&C TECHNICIAN WAS COMPLETING A ROUTINE CALIBRATION OF A CORE PLATE DIFFERENTIAL PRESSURE TRANSMITTER (1B21-PDT-014). VALVING THE TRANSMITTER BACK INTO SERVICE CAUSED A HYDRAULIC OSCILLATION WHICH WAS TRANSMITTED TO THE 'B' NARROW RANGE VARIABLE LEG THROUGH THE JET PUMP

DEVELOPED HEAD LOCAL INDICATOR (1B21-PDI-006). THIS CAUSED A MOMENTARY FALSE LOW LEVEL (LEVEL 3, + 12.5") SIGNAL RESULTING IN A FULL REACTOR TRIP. THE PLANT WAS IN OPERATIONAL CONDITION 2. RHR SHUTDOWN COOLING LOOPS WERE AUTOMATICALLY ISOLATED. VESSEL LEVEL WAS VERIFIED TO BE NORMAL (+39"), THE SCRAM WAS RESET, AND THE EMERGENCY SHUTDOWN PROCEDURE WAS PERFORMED. TO PREVENT RECURRENCE, ENGINEERING WILL BE REQUESTED TO EVALUATE THE NEED TO CHANGE 1B21-PDI-006 FROM A LARGE BELLOWS TYPE INSTRUMENT TO A ROSEMOUNT.

[232] ST. LUCIE 1 DOCKET 50-335 LER 85-007  
LOCA-ECCS ANALYSIS IN ERROR.  
EVENT DATE: 082185 REPORT DATE: 092085 NSSS: CE TYPE: PWR

(NSIC 196402) DURING NORMAL FULL POWER OPERATION, THE PLANT WAS INFORMED BY EXXON NUCLEAR CORP OF A NONCONSERVATIVE ERROR IN THE LOCA - ECCS ANALYSIS. THE ERROR WAS A RESULT OF USING THE WRONG REACTOR COOLANT PUMP TORQUE VALUES AS INPUT VALUES. A CONSERVATIVE ESTIMATE OF THE EFFECTS OF THE IDENTIFIED ERROR ESTABLISHED A LIMIT OF 14.0 KW/FT FOR LINEAR HEAT GENERATION RATE (LHGR) TO ASSURE COMPLIANCE WITH 10 CFR 50.46 CRITERIA. A DESIGN ERROR OCCURRED DUE TO A BREAKDOWN IN EXXON NUCLEAR CO INTERNAL COMMUNICATIONS IN DISTRIBUTING PLANT DATA OBTAINED FROM FLORIDE POWER & LIGHT. THE FACILITY REVIEW GROUP APPROVED THE NEW LHGR SETPOINTS.

[233] SUMMER 1 DOCKET 50-395 LER 84-031 REV 1  
UPDATE ON OMISSION OF OVERCURRENT PROTECTION DEVICES.  
EVENT DATE: 071784 REPORT DATE: 111484 NSSS: WE TYPE: PWR

(NSIC 196430) DURING THE REVIEW OF THE FIRE PROTECTION QUALITY RELATED PLAN, 7 ELECTRICAL CIRCUITS WERE IDENTIFIED THAT PENETRATE THE CONTAINMENT WHICH ARE NOT INCLUDED IN TABLE 3.8-1 OF TECH SPEC 3.8.4. 'CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT PROTECTION DEVICES.' THREE OF THE CIRCUITS ARE ASSOCIATED WITH SMOKE DETECTORS AND HAVE OVERCURRENT PROTECTION DEVICES. THE REQUIRED SURVEILLANCE TEST WAS PERFORMED ON THESE CIRCUITS AND FOUND TO BE SATISFACTORY. FOUR CIRCUITS ARE ASSOCIATED WITH LIGHTING INSIDE THE PERSONNEL AIRLOCK AND PERSONNEL ESCAPE AIRLOCK. THESE CIRCUITS DO NOT HAVE OVERCURRENT PROTECTION AND, AS SUCH, THE ELECTRICAL CIRCUIT BREAKERS HAVE BEEN OPEN IN ACCORDANCE WITH TECH SPEC 3.8.4. A PLANT MODIFICATION IS BEING PROCESSED TO INSTALL OVERCURRENT PROTECTION. TECH SPEC TABLE 3.8-1 IS CURRENTLY BEING REVIEWED TO ENSURE NO OTHER CIRCUITS HAVE BEEN INADVERTENTLY OMITTED. THE LICENSEE WILL SUBMIT A TECH SPEC CHANGE NO LATER THAN 5-1-85, REQUESTING THAT THE 7 CIRCUITS IDENTIFIED IN THIS REPORT AND ANY ADDITIONAL CIRCUIT(S) IDENTIFIED IN THE REVIEW BE ADDED TO TABLE 3.8-1.

[234] SUMMER 1 DOCKET 50-395 LER 85-020  
STEAM GENERATOR CHEMICAL INJECTION VALVE NOT TESTED PRIOR TO RETURN TO SERVICE.  
EVENT DATE: 082085 REPORT DATE: 091885 NSSS: WE TYPE: PWR  
VENDOR: LIMITORQUE CORP.

(NSIC 196407) AT APPROX 0857 HRS ON 8-16-85, THE DUTY SHIFT SUPERVISOR AUTHORIZED THE CLEARANCE OF DANGER TAGS WHICH HAD BEEN REQUIRED FOR THE REPAIR OF CONTAINMENT ISOLATION VALVE XVK-1633B, CHEMICAL INJECTION TO SG 'B.' POWER WAS RESTORED TO THE VALVE AND A MANUAL ISOLATION VALVE WAS OPENED WHICH RESTORED THE SYSTEM TO ITS NORMAL LINE-UP PRIOR TO PERFORMING THE REQUIRED POST MAINTENANCE TESTING. VALVE XVK-1633B IS A MOTOR-OPERATED 'STOP CHECK' IN THE 1 1/2 INCH STANDBY CHEMICAL INJECTION LINE TO 'B' STEAM GENERATOR. THIS SYSTEM IS ONLY USED WHEN PLACING THE SG IN A 'WET LAY-UP' CONDITION. DURING POWER OPERATION, XVK-1633B IS CLOSED WHICH WAS THE POSITION DURING THIS EVENT. ALL POST MAINTENANCE TESTING WAS COMPLETED 8-20 AND THE RESULTS WERE SATISFACTORY. THIS EVENT WAS DUE TO PERSONNEL ERROR. TO PRECLUDE RECURRENCE, STATION SCHEDULING PROCEDURE (SSP)-001, 'PLANNING AND SCHEDULING ON-LINE MAINTENANCE ACTIVITIES,' IS

BEING REVISED TO REQUIRE ALL DOCUMENTS ASSOCIATED WITH A WORK PACKAGE BE FORWARDED TO OPERATIONS FOR REVIEW PRIOR TO SYSTEM/EQUIPMENT RESTORATION.

[235] SUMMER 1 DOCKET 50-395 LER 85-021  
MISSED HOURLY FIRE WATCH REQUIRED FOR INOPERABLE FIRE BARRIER PENETRATION.  
EVENT DATE: 082085 REPORT DATE: 091885 NSSS: WE TYPE: PWR

(NSIC 196408) A FOAM/PRESSURE FIRE BARRIER LOCATED AT THE 425' ELEVATION BETWEEN THE CONTROL BUILDING (CB 25-02) AND THE TURBINE BUILDING HAD BEEN DECLARED INOPERABLE (TO FACILITATE THE ROUTING OF AN ELECTRICAL CABLE) AND COMPENSATORY ACTION HAD BEEN TAKEN. DUE TO PERSONNEL ERROR, AN HOURLY FIRE WATCH WAS NOT PERFORMED AS REQUIRED BY TECH SPEC 3.7.10, "FIRE RATED ASSEMBLIES," FROM 2400 HOURS ON AUGUST 19, 1985 UNTIL 1800 HOURS ON AUGUST 22, 1985. AT MIDNIGHT ON AUGUST 19 WHEN A NEW FIRE WATCH LOG WAS INITIATED, PATROL AREA CB 25-02 WAS INADVERTENTLY CHANGED TO CB 36-02. UPON DISCOVERY OF THE ERROR, THE LOG WAS CORRECTED, SMOKE DETECTORS IN THE AREA WERE VERIFIED OPERABLE AND THE HOURLY FIRE WATCH PATROL ESTABLISHED. TO PRECLUDE RECURRENCE, THE LICENSEE HAS TAKEN THE FOLLOWING CORRECTIVE ACTION. A NEW FIRE WATCH LOG WILL BE INITIATED AT 1200 HOURS DAILY IN LIEU OF 2400 HOURS AND WILL BE VERIFIED BY THE FIRE PROTECTION COORDINATOR DURING NORMAL OPERATING HOURS AND BY THE SHIFT SUPERVISOR ON HOLIDAYS AND WEEKENDS.

[236] SUMMER 1 DOCKET 50-395 LER 85-024  
TRIPPING OF RCS FLOW TRANSMITTER CAUSES REACTOR TRIP.  
EVENT DATE: 082085 REPORT DATE: 091985 NSSS: WE TYPE: PWR  
VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 196450) ON 8-20-85 AND AGAIN ON 8-24-85, REACTOR TRIPS OCCURRED FROM 100% AND 10% POWER RESPECTIVELY. THE INITIAL POST TRIP REVIEW INDICATED THAT PLANT RESPONSE TO THE TRIPS WAS NORMAL WITH THE EXCEPTION OF AN INTERMEDIATE AND SOURCE RANGE DETECTOR ASSEMBLY FAILURE FOLLOWING THE TRIP ON 8-20. ON 8-28-85 THE LICENSEE IDENTIFIED A NON-CONSERVATIVE RESPONSE ON THE OVERPOWER DELTA TEMPERATURE SETPOINT FOLLOWING THE TRIPS. DETAILS OF THIS PROBLEM ARE ADDRESSED IN LER 85-025. THE 8-20 TRIP WAS DUE TO A MOMENTARY INDICATION OF LOW RCS FLOW CAUSED BY MAINTENANCE ON FLOW TRANSMITTER FT-435. TO PREVENT RECURRENCE, PRECAUTIONS WILL BE ADDED TO MAINTENANCE PROCEDURES AFFECTING EQUIPMENT WITH COMMON SENSING LINES. THE 8-24 TRIP WAS DUE TO CONSERVATIVE INTERMEDIATE RANGE SETPOINTS ESTABLISHED FOLLOWING REPLACEMENT OF THE DETECTOR ASSEMBLY. DUE TO A LACK OF PROGRAMMATIC CONTROLS, THE SETPOINTS WERE NOT CHANGED PRIOR TO THE POWER ESCALATION. PROGRAMMATIC CONTROLS WILL BE ESTABLISHED TO CLEARLY DEFINE AND TRACK POST MAINTENANCE ACTIVITIES DURING FUTURE STARTUPS.

[237] SUMMER 1 DOCKET 50-395 LER 85-023  
RESIDUAL HEAT REMOVAL SYSTEM MISALIGNMENT.  
EVENT DATE: 082385 REPORT DATE: 092085 NSSS: WE TYPE: PWR

(NSIC 196449) ON 8-23-85 AT 0620 HRS, A PLANT MODE CHANGE WAS MADE FROM HOT SHUTDOWN TO HOT STANDBY WITHOUT THE PROPER ALIGNMENT OF THE RHR SYSTEM. THE SYSTEM MISALIGNMENT WAS DISCOVERED BY THE SHIFT TECHNICAL ADVISOR (STA) DURING HIS REVIEW OF THE BYPASS INOPERABLE STATUS INDICATION (BISI) SYSTEM AT 0738 HRS. AT 0738 HRS, THE SYSTEM WAS RETURNED TO ITS PROPER ALIGNMENT. THE MISALIGNMENT CONCERNED VALVES XVG-8888 A AND B, THE LOW HEAD SAFETY INJECTION VALVES TO THE RCS COLD LEGS. THESE VALVES ARE REQUIRED OPEN FOR ENTRY INTO MODE 3 PER TECH SPEC 3.5.2. CONTRARY TO THIS REQUIREMENT BOTH VALVES WERE CLOSED PRIOR TO 0620 HRS WHEN THE MODE CHANGE WAS MADE. THE VALVES WERE CLOSED FOR RECIRCULATION OF BOTH TRAINS OF THE RHR SYSTEM FOR BORON EQUILIZATION DURING THE SHUTDOWN ON 8-21-85. THE 'B' TRAIN OF RHR WAS PUT INTO SERVICE WITH XVG-8888B OPEN FOR THE COOLDOWN TO COLD SHUTDOWN. XVG-8888B REMAINED OPEN UNTIL THE SYSTEM WAS

(NSIC 196193) ON 1-6, A REACTOR TRIP OCCURRED AS A RESULT OF AN OVER TEMPERATURE DELTA-T (OT DELTA T) SIGNAL. PLANT PARAMETERS DID NOT INDICATE A VALID OT DELTA T CONDITION. AT THE TIME OF THE EVENT, INSTRUMENT TECHNICIANS WERE PERFORMING A PERIODIC TEST WHICH REQUIRED THE CH. II OT DELTA T BISTABLES TO BE IN THE TRIP MODE, AND MAINTENANCE WAS BEING PERFORMED ON THE PLANT GAITRONICS (P.A.) SYSTEM. THE GAITRONICS SYSTEM IS POWERED FROM THE UNIT I VITAL BUS I. WHEN THE GAITRONICS WAS RE-ENERGIZED, AN APPARENT POWER SURGE OCCURRED IN THE GAITRONICS SYSTEM. THE POWER SURGE IS BELIEVED TO HAVE INDUCED A VOLTAGE TRANSIENT IN VITAL BUS I WHICH RESULTED IN TRIPPING THE RELAYS FOR OT DELTA T REACTOR TRIP CH. I. SINCE CH. II WAS IN TRIP AT THE TIME IN ORDER TO SUPPORT PERFORMANCE OF P.T. 2.1, THE 2/3 MATRIX WAS COMPLETED AND AS A RESULT, A REACTOR TRIP OCCURRED. AN ANALYSIS HAS BEEN COMPLETED TO EVALUATE THE EFFECTS OF THE GAITRONICS SYSTEM ON THE VITAL INSTRUMENT BUS. MAINTENANCE PROCEDURES HAVE BEEN DEVELOPED AND HARDWARE MODIFICATIONS ARE BEING EVALUATED.

(NSIC 196259) IN 6-84, DURING UNIT 1 CYCLE 7 OPERATION, CONTROL ROD B-6 BECAME STUCK AT THE 56 STEPS WITHDRAWN LOCATION. AS A RESULT OF THE STUCK ROD, A QUADRANT POWER TILT OF GREATER THAN 2.0% EXISTED FOR GREATER THAN 24 HRS. THIS WAS REPORTED IN LER 84-017 ON 7-17-84 IN ACCORDANCE WITH SECTION 3.12.B.7 OF THE TECH SPECS. AT THE TIME OF THE REPORT, THE CAUSE OF THE STUCK ROD COULD NOT BE DETERMINED. VIRGINIA POWER COMMITTED TO DETERMINING THE CAUSE AT THE NEXT REFUELING. DURING THE CYCLE 7/8 REFUELING VISUAL INSPECTION OF THE AFFECTED FUEL ASSEMBLY AND ROD CLUSTER CONTROL ASSEMBLY (RCCA), IT WAS DISCOVERED THAT 1 OF THE 2 HOLDDOWN SPRING CLAMPS HAD SEPARATED FROM THE TOP OF THE ASSEMBLY AND HAD BECOME LODGED BETWEEN 2 RCCA RODLETS. VIRGINIA POWER AND THE FUEL VENDOR HAVE CONCLUDED THAT THE SPRING CLAMP WAS THE CAUSE OF THE CYCLE 7 STUCK ROD.

(NSIC 196217) WHILE RACKING 'B' CHARGING PUMP BREAKER I5J5 OUT FOR PUMP MAINTENANCE, THE NORMAL FEEDER BREAKER I5H6 FOR THE OPERATING 'C' CHARGING PUMP TRIPPED DUE TO AN ELECTRICAL INTERLOCK. PRIOR TO THIS EVENT, CHARGING PUMP 'A' HAD BEEN REMOVED FROM SERVICE FOR MAINTENANCE. WITH THE TRIPPING OF 'C' PUMP, ALL CHARGING AND SEAL INJECTION FLOW WAS LOST FOR APPROX 1 MIN. IN ADDITION, WITH THE LOSS OF ALL CHARGING PUMPS, (EIIIS NO. P) HIGH HEAD SAFETY INJECTION, CAPABILITY WAS LOST FOR THE SAME LENGTH OF TIME. THIS EVENT WAS CAUSED BY INADEQUATE PRECAUTIONS IN THE PROCEDURE USED AND OPERATOR ERROR. PERSONNEL INVOLVED HAVE BEEN RE-INSTRUCTED AND PRECAUTIONS WILL BE ADDED TO THE PROCEDURE. LABELS HAVE BEEN ATTACHED TO THE CHARGING PUMP BREAKER CUBICLES WARNING OF EXISTING INTERLOCKS.

LER 85-008

TYPE: PWR

VENDOR: ITT GENERAL CONTROLS

(NSIC 196276) ON 6-19-85 UNIT 1 WAS AT FULL POWER AND UNIT 2 WAS AT COLD SHUTDOWN. AT 0510 HRS, AUX VENTILATION DAMPER I-VS-MOD-58A (CATEGORY I FILTER TRAIN DISCHARGE DAMPER) DRIFTED CLOSED. THE OTHER TRAIN OF AUX VENTILATION WAS ISOLATED FOR FILTER REPLACEMENT 7 HRS EARLIER. DAMPER I-VS-MOD-58A WAS MANUALLY OPENED WITHIN 10 MINS. THE PARTS NECESSARY TO REPAIR THE DAMPER ARE ON ORDER AND FURTHER CORRECTIVE ACTIONS MUST AWAIT THEIR AVAILABILITY.

LER 85-010

EVENT DATE: 081385 REPORT DATE: 091285

TYPE: PWR

(NSIC 196333) ON 8-13-85 UNIT 2 EXPERIENCED A TURBINE RUNBACK TO APPROX 48% POWER. THIS EVENT WAS INITIATED FROM THE LOSS OF VITAL BUS 2-I, WHICH RESULTED IN A NUCLEAR INSTRUMENT SYSTEM (NIS) DROPPED ROD TURBINE RUNBACK. IN ORDER TO RESTORE POWER, VITAL BUS 2-I WAS CROSSTIED WITH ENERGIZED VITAL BUS 2-III. FOLLOWING THE EVENT, FEEDER BREAKER 24H11 FOR BUS 2H-I AND THE FEEDER BREAKER TO VITAL BUS 2-I SOLA TRANSFORMER WERE FOUND TRIPPED. BOTH BUSES WERE EXAMINED FOR ELECTRICAL FAILURES AND NONE WERE FOUND. THE BREAKERS WERE RESET AND SCHEDULED FOR INSPECTION DURING THE NEXT EXTENDED OUTAGE.

LER 85-018

EVENT DATE: 091185 REPORT DATE: 101185

TYPE: PWR

(NSIC 196277) ON 9-11-85 WITH UNIT 1 AT 100% POWER, A TURBINE TRIP/REACTOR TRIP OCCURRED AS A RESULT OF A LOW CONDENSER VACUUM SIGNAL. THE LOW CONDENSER VACUUM WAS CREATED WHEN AN OPERATOR INADVERTENTLY CLOSED THE 4 CONDENSER INLET VALVES (MOV-CW-106A, B, C, D) WHILE ATTEMPTING TO THROTTLE THE 4 CONDENSER OUTLET VALVES (MOV-CW-100A, B, C, D) FROM A FULLY OPEN POSITION. CONTRIBUTING FACTORS IN THE EVENT WERE THE PLACEMENT AND APPEARANCE OF THE CONTROL SWITCHES FOR THE VALVES. COVERS HAVE BEEN PLACED ON THE INLET VALVES CONTROL SWITCHES FOR UNIT 1 AND 2 TO PREVENT INADVERTENT OPERATION. THESE SWITCHES WILL UNDERGO ADDITIONAL EVALUATION AS PART OF THE 'CONTROL ROOM DESIGN REVIEW'. IN ADDITION, THE OPERATOR HAS BEEN REINSTRUCTED IN THE MANIPULATION OF THE OPERATION OF THE VALVES IN THAT ONLY 1 VALVE IS TO BE OPERATED AT A TIME.

LER 84-011 REV 1

EVENT DATE: 030184 REPORT DATE: 042685

TYPE: BWR

(NSIC 196371) TWO INITIATIONS OF THE CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY SYSTEM (CREOASS) AND STANDBY GAS TREATMENT SYSTEM (SBGTS) WERE CAUSED BY PRE-LICENSING WORK ON UNIT 2. UNIT 1 IS OPERATIONAL AND THE CREOASS AND SBTG SYSTEMS ARE COMMON TO BOTH UNITS. THE FIRST INITIATION OCCURRED WHEN A RPS BUS TRIPPED AS DESIGNED, DUE TO A VOLTAGE DROP. THE BUS WAS CONNECTED TO ITS ALTERNATE POWER SUPPLY. UNLIKE THE PRIMARY SUPPLY, WHICH USES A MOTOR-GENERATOR SET, THE ALTERNATE SUPPLY UNDERGOES A VOLTAGE DROP DURING MOTOR STARTS. A PLANT MODIFICATION TO INSTALL A CONSTANT VOLTAGE TRANSFORMER ON THE ALTERNATE POWER SUPPLY AND PREVENT THIS TYPE OF UNINTENTIONAL SAFETY SYSTEM INITIATION HAS BEEN COMPLETED. THE SECOND INITIATION OCCURRED WHEN A SET OF TEST JUMPER CABLES WERE

INCORRECTLY REMOVED, CAUSING A TEMPORARY LOSS OF POWER TO THE RPS BUS. ELECTRICAL PERSONNEL (NON-LICENSED, UTILITY) HAVE BEEN COUNSELED ON JUMPER CABLE PROCEDURES.

[245] SUSQUEHANNA 1 DOCKET 50-387 LER 85-027  
OFFGAS PRETREATMENT RADIATION MONITOR SURVEILLANCE NOT MET.  
EVENT DATE: 080985 REPORT DATE: 090485 NSSS: GE TYPE: BWR  
OTHER UNITS INVOLVED: SUSQUEHANNA 2 (BWR)

(NSIC 196301) ON AUGUST 9, 1985, AT 1515 HOURS, THE UNIT 1 OFFGAS PRETREATMENT RADIATION MONITORS WERE DECLARED INOPERABLE AFTER IT WAS DETERMINED THAT A TECH SPEC SURVEILLANCE REQUIREMENT WAS NOT MET. TECH SPEC 4.3.7.11-1.4 REQUIRES AN 18 MONTH CALIBRATION OF THE OFFGAS PRETREATMENT RADIATION DETECTORS. FOOTNOTE (2) TO THIS TABLE, APPLICABLE TO THIS CALIBRATION REQUIREMENT, REQUIRES AN INITIAL CALIBRATION USING STANDARDS TRACEABLE TO THE NATIONAL BUREAU OF STANDARDS (NBS) AND SUBSEQUENT CALIBRATION USING SOURCES RELATED TO THE INITIAL CALIBRATION. THE DETECTORS WERE INITIALLY CALIBRATED ON MARCH 9, 1982 USING SOURCES RELATED TO THE INITIAL CALIBRATION. ALL OTHER SURVEILLANCE REQUIREMENTS FOR THE DETECTORS INCLUDING THE 18 MONTH CALIBRATION OF THE DETECTOR ELECTRONICS WERE PERFORMED AS REQUIRED. THE DETECTORS WERE CALIBRATED TO AN NBS TRACEABLE SOURCE ON AUGUST 9, 1985, AND THE LCO WAS CLEARED AT 1815 HOURS ON AUGUST 10, 1985. A SIMILAR SITUATION EXISTED ON UNIT 2, HOWEVER, THE UNIT 2 DETECTORS WERE CALIBRATED BEFORE THE ALLOWABLE EXTENSION OF THE SURVEILLANCE INTERVAL WAS EXCEEDED. NEW SURVEILLANCE PROCEDURES ARE BEING PREPARED TO MEET THE SURVEILLANCE REQUIREMENTS OF TECH SPEC 4.3.7.11-1.4. IN ADDITION, A REVIEW OF SURVEILLANCE REQUIREMENTS FOR ALL PLANT RADIATION MONITORS WILL BE PERFORMED TO ENSURE COMPLIANCE WITH THE TECH SPECS.

[246] SUSQUEHANNA 1 DOCKET 50-387 LER 85-028  
TESTING ERROR CAUSES HPCI INBOARD STEAM SUPPLY VALVE ISOLATION.  
EVENT DATE: 082385 REPORT DATE: 091885 NSSS: GE TYPE: BWR

(NSIC 196362) ON AUGUST 23, 1985 AT 0951 THE HIGH PRESSURE COOLANT INJECTION (HPCI) SYSTEM WAS DECLARED INOPERABLE WHEN THE HPCI SYSTEM INBOARD STEAM SUPPLY VALVE ISOLATED. AN INSTRUMENTATION AND CONTROL (I&C) TECHNICIAN PERFORMING A QUARTERLY CALIBRATION OF A PRESSURE SWITCH INADVERTENTLY CONNECTED HIS TEST EQUIPMENT TO THE WRONG TERMINAL POINTS WHICH CAUSED THE VALVE TO ISOLATE. THE VALVE WAS REOPENED AND THE HPCI SYSTEM WAS DECLARED OPERABLE AT 1050 ON AUGUST 23, 1985. HOWEVER, INTERMEDIATE POSITION INDICATION ON THE HPCI STEAM LINE WARMUP ISOLATION VALVE NECESSITATED RECLOSING OF THE INBOARD STEAM SUPPLY ISOLATION VALVE, AND HPCI WAS AGAIN DECLARED INOPERABLE AT 1425 THE SAME DAY. AFTER FULL CLOSE INDICATION OF THE WARMUP ISOLATION VALVE WAS OBTAINED, THE INBOARD STEAM SUPPLY VALVE WAS REOPENED AND HPCI DECLARED OPERABLE AT 1935 ON AUGUST 23, 1985. THE I&C TECHNICIAN PERFORMING THE CALIBRATION WAS COUNSELED REGARDING THE SERIOUSNESS OF HIS ACTIONS. ALSO, STRICT COMPLIANCE TO PROCEDURES WILL BE EMPHASIZED DURING THE NEXT MONTHLY MEETING OF THE I&C DEPARTMENT.

[247] SUSQUEHANNA 2 DOCKET 50-388 LER 84-010 REV 1  
UPDATE ON FAILURE OF HPCI STARTUP SUCTION STRAINER.  
EVENT DATE: 062784 REPORT DATE: 011585 NSSS: GE TYPE: BWR

(NSIC 196372) AT 1930 ON 6-27-84, A 16 PSI PRESSURE DROP WAS NOTED ON THE UNIT 2 HPCI PUMP SUCTION PIPING. THE PRESSURE DROP WAS NOTED DURING THE HEATUP PLAUER REVIEW. DURING THE TESTING THE DISCHARGE PRESSURE AND FLOW RATES WERE WITHIN THE TECH SPEC REQUIREMENTS. THE REASON FOR THE 16 PSI PRESSURE DROP WAS DUE TO START-UP STRAINER BLOCKAGE FROM PARTICULATE MATTER IN THE HPCI SUCTION PIPING. THE HPCI SYSTEM WAS DECLARED INOPERABLE AND THE START-UP STRAINER WHICH HAD SPLIT AT ITS SEAM WAS REMOVED AND A RING SPACER INSTALLED. THE HPCI SUCTION STRAINER WAS INSTALLED IN THE HPCI SYSTEM DURING START-UP TESTING TO PREVENT PARTICLES

FROM ENTERING THE BOOSTER PUMP. THE STRAINER REMAINED IN THE SYSTEM AFTER THE START-UP PROGRAM AND INTO THE POWER ASCENSION TESTING TO PREVENT PARTICLES FROM ENTERING THE PUMP DURING FULL FLOW TESTING. THE INSTALLED STRAINER WAS NOT DOCUMENTED ON THE STARTUP WORK LIST (SWL), WHICH TRACKS OPEN ITEMS ON THE SYSTEM. THIS WAS AN OVERSIGHT BY THE STARTUP ENGINEER RESPONSIBLE FOR THE SYSTEM. NO FORMAL MECHANISM EXISTED FOR TRACKING OF THE INSTALLED STRAINER.

[248] SUSQUEHANNA 2 DOCKET 50-388 LER 84-015 REV 1  
 UPDATE ON RWCU ISOLATION CAUSED BY DIFFERENTIAL PRESSURE INSTRUMENT DRIFT.  
 EVENT DATE: 080284 REPORT DATE: 012285 NSSS: GE TYPE: BWR  
 VENDOR: BARTON INSTRUMENT CO., DIV OF ITT

(NSIC 196373) AT 1840 HRS ON 8-2-84, THE RWCU SYSTEM ISOLATED ON HIGH FLOW. THE EXISTENCE OF NO OTHER ABNORMAL ALARMS OR INDICATION AT THE TIME OF THE ISOLATION INDICATED A PIPE BREAK AND NOT OCCURRED AS WAS CONFIRMED BY AN IMMEDIATE WALK DOWN OF THE RWCU PIPING. FOLLOWING THE ISOLATION, SAMPLING OF THE REACTOR COOLANT CONDUCTIVITY WAS INITIATED IN COMPLIANCE WITH TECH SPEC SECTION 4.4.4(C). FURTHER INVESTIGATIONS REVEALED THAT 1 OF THE 2 SWITCHES INDEPENDENTLY USED FOR RWCU HIGH FLOW TRIP AND SYSTEM ISOLATION, PDIS-G33-2N044A, WAS OUT OF CALIBRATION DUE TO INSTRUMENT DRIFT. PDIS-G33-2N044A WAS RECALIBRATED, AND RETURNED TO SERVICE. THE RWCU SYSTEM WAS RETURNED TO SERVICE AT 0400 HRS ON 8-3-84. THE DIFFERENTIAL PRESSURE INSTRUMENT PDIS-G33-2N044A WAS LATER REPLACED ON 11-4-84. ISOLATION OF THE RWCU SYSTEM IS AN ESF ACTUATION DUE TO THE CLOSURE OF THE SYSTEM'S CONTAINMENT ISOLATION VALVE.

[249] SUSQUEHANNA 2 DOCKET 50-388 LER 84-021 REV 1  
 UPDATE ON TURBINE TRIP/REACTOR SCRAM ON MOISTURE SEPARATOR DRAIN TANK HIGH LEVEL.  
 EVENT DATE: 093084 REPORT DATE: 012985 NSSS: GE TYPE: BWR  
 VENDOR: FISHER CONTROLS CO.

(NSIC 196374) ON 9-30-84, THE REACTOR SCRAMMED DUE TO A TURBINE TRIP ON MOISTURE SEPARATOR 'B' DRAIN TANK HIGH LEVEL DURING THE PERFORMANCE OF A STARTUP TEST TO DETERMINE THE MAXIMUM FEEDWATER PUMP RUNOUT CAPABILITIES. FEEDWATER FLUCTUATIONS RESULTED IN A 45% REACTOR RECIRCULATION PUMP RUNBACK WHICH SHOWED THAT THE MOISTURE SEPARATOR 'B' DRAIN TANK LEVEL CONTROL SYSTEM DID NOT ACCURATELY RESPOND TO THE TRANSIENT. THE FOLLOWING SYSTEM MODIFICATIONS HAVE BEEN COMPLETED: 1. 1:1 GAIN PNEUMATIC BOOSTERS WERE INSTALLED IN THE TUBING BETWEEN THE EMERGENCY DUMP VALVE'S POSITIONER AND ACTUATOR DIAPHRAGM. 2. A CHECK VALVE WAS INSTALLED IN THE DRAIN LINE FROM EACH DRAIN TANK. 3. PROPORTIONAL CONTROLLERS WITH RESET CAPABILITIES WERE INSTALLED IN THE MOISTURE SEPARATOR DRAIN TANK LEVEL CONTROL SYSTEM. LEVEL CONTROL SYSTEM OPERATION HAS BEEN ACCEPTABLE. NO FURTHER MODIFICATIONS ARE PLANNED.

[250] SUSQUEHANNA 2 DOCKET 50-388 LER 84-027 REV 1  
 UPDATE ON FIRE BARRIER WRAP MISSING.  
 EVENT DATE: 102684 REPORT DATE: 011585 NSSS: GE TYPE: BWR

(NSIC 196376) DUE TO 2 INDEPENDENT ADMINISTRATIVE ERRORS IMPACTING THE SAME ACTIVITY, A FIRE WATCH WAS NOT PROVIDED FOR INOPERABLE FIRE BARRIERS IN ACCORDANCE WITH TECH SPEC 3.7.7. THE FIRST ERROR RESULTED FROM THE ELEVATION NUMBER BEING TRANSPOSED FROM 762' TO 672' AND THUS THERE WAS NO FIRE WATCH AT ELEVATION 762' FROM 11-1-84, WHEN THE FIRE BARRIER WAS DECLARED INOPERABLE UNTIL 11-30-84, WHEN THE ERROR WAS DISCOVERED AND CORRECTED. THE SECOND ERROR RESULTED FROM THE ORIGINAL LCO (ON ELEVATION 672') BEING MISTAKENLY CONCELED BY THE UNIT SUPERVISOR. THE DISCOVERY OF THE SECOND ERROR LED TO THE DISCOVERY AND CORRECTION OF THE FIRST ERROR. THIS OCCURRENCE WILL BE REVIEWED WITH SHIFT SUPERVISION TO PREVENT RECURRENCE. THE AFFECTED FIRE BARRIERS WERE RESTORED TO OPERABLE STATUS AND THE FIRE WATCH CANCELLED.

[251] SUSQUEHANNA 2 DOCKET 50-388 LER 84-023 REV 1  
 UPDATE ON FIRE WATCH NOT BEING PERFORMED AS REQUIRED.  
 EVENT DATE: 120684 REPORT DATE: 040485 NSSS: GE TYPE: SWR

(NSIC 196375) A FIRE WATCH WAS REQUIRED IN 1 AREA OF THE PLANT FOR 2 INDEPENDENT WORK ACTIVITIES. WHEN 1 WORK ACTIVITY WAS COMPLETED ON 12-6-84, THE FIRE WATCH FOR THE AREA WAS REMOVED FROM THE FIRE WATCH LOG. THE FIRE WATCH LOG DID NOT REFERENCE THE 2 WORK ACTIVITIES. WHEN THE ERROR WAS DISCOVERED ON 12-17-84, THE FIRE WATCH WAS REINSTITATED. OPERATIONS SECTION HAS DEVELOPED ADDITIONAL GUIDELINES FOR TRACKING FIRE PROTECTION LCO ACTIVITIES. ADMINISTRATIVE PROCEDURE AD-QA-302, SYSTEM STATUS AND EQUIPMENT CONTROL HAS BEEN REVISED TO PROVIDE FOR AN INDIVIDUAL LCO LOG FOR FIRE PROTECTION RELATED ACTIVITIES. THE ADDITION OF THIS SEPARATE LOG IS EXPECTED TO REDUCE THE POSSIBILITY OF ADMINISTRATIVE ERRORS RELATED TO FIRE PROTECTION LCO'S.

[252] THREE MILE ISLAND 2 DOCKET 50-320 LER 85-008  
 INOPERABLE STATUS OF THE EMERGENCY DIESEL GENERATOR FIRE SUPPRESSION SYSTEMS.  
 EVENT DATE: 080185 REPORT DATE: 083085 NSSS: BW TYPE: PWR

(NSIC 196342) ON 8-1-85, AT 1255 HRS, IT WAS DISCOVERED THAT THE TMI-2 FIRE SYSTEM VALVE FS-V-137 WAS CLOSED. THIS VALVE ISOLATES (AND RENDERS INOPERABLE) THE AREA FIRE SUPPRESSION DELUGE/SPRINKLER SYSTEMS FOR THE TMI-2 EMERGENCY DG-AIR INTAKE AREA, FUEL OIL TANK AREAS AND GENERATOR ROOMS. THE VALVE HAD BEEN CLOSED SINCE 7-17-85. THESE AREA FIRE SUPPRESSION DELUGE/SPRINKLER SYSTEMS ARE REQUIRED TO BE OPERABLE PURSUANT TO TECH SPEC LCO 3.7.10.2. DURING THE PERIOD THAT THIS VALVE WAS CLOSED, THE UNIT FAILED TO COMPLY WITH THE ACTION STATEMENT OF TECH SPEC LCO 3.7.10.2. THE CAUSE OF THIS EVENT HAS BEEN DETERMINED TO BE A PERSONNEL ERROR ON THE PART OF THE SHIFT FOREMAN WHO AUTHORIZED THE CLOSURE OF FS-V-137 WITHOUT RECOGNIZING THAT THIS WOULD ISOLATE THE AREA FIRE SUPPRESSION DELUGE/SPRINKLER SYSTEMS. THE FAILURE TO INITIATE A 1 HR FIREWATCH, PROVIDE BACKUP FIRE SUPPRESSION EQUIPMENT AND RETURN THE AREA FIRE SUPPRESSION DELUGE/SPRINKLER SYSTEM TO SERVICE WITHIN 14 DAYS RESULTED IN VIOLATION OF THE ACTION STATEMENT OF TECH SPEC LCO 3.7.10.2. FAILURE TO COMPLY WITH THE ACTION STATEMENT RESULTS IN THIS EVENT BEING REPORTABLE TO THE NRC PURSUANT TO 10 CFR 50.73(A)(2)(I)(B).

[253] TROJAN DOCKET 50-344 LER 84-013 REV 1  
 UPDATE ON PRESSURIZER LEVEL TRANSMITTER CALIBRATION ERROR.  
 EVENT DATE: 090784 REPORT DATE: 020685 NSSS: WE TYPE: PWR

(NSIC 196427) ON 9-7-84 DURING PLANT SHUTDOWN FOR REFUELING, RECALCULATION OF THE CALIBRATION SCALING FACTORS FOR INSTALLATION OF A DESIGN MODIFICATION TO THE PRESSURIZER LEVEL INSTRUMENT SENSING LINES INDICATED THAT THE CALIBRATION FOR THE PREVIOUS DESIGN WAS IN ERROR. THE MAXIMUM ERROR LED TO LOWER-THAN-ACTUAL PRESSURIZER LEVEL INDICATION BY APPROX 10% OF SPAN. THE CAUSE OF THE ERROR WAS INCORRECT CALCULATION OF THE CALIBRATION SCALING FACTORS FOR THERMAL DISPLACEMENTS AND AN ASSUMPTION OF A DIFFERENT VENT POINT IN THE CALCULATION THAN WAS ACTUALLY USED DURING CALIBRATION. CORRECTED CALIBRATION SCALING FACTORS FOR THE MODIFIED SENSING LINE DESIGN ON EACH OF THE 3 PRESSURIZER LEVEL SENSING CHANNELS HAS BEEN APPLIED IN RECALIBRATION OF THE PRESSURIZER LEVEL TRANSMITTERS. INDEPENDENT DESIGN REVIEW OF THE CALIBRATION SCALING FACTOR CALCULATION HAS VERIFIED THERMAL DISPLACEMENTS, AND THAT THE CALCULATIONS ARE CONSISTENT WITH THE SPECIFIED VENT POINTS. THE CALIBRATION SCALING FACTOR CALCULATION HAS ALSO BEEN REVIEWED FOR OVERALL ACCURACY OF THE SCALING FACTORS OBTAINED AND FOR THEIR USE IN PRESSURIZER LEVEL TRANSMITTER CALIBRATION PROCEDURE.

[254] TROJAN DOCKET 50-344 LER 84-021 REV 1  
 UPDATE ON SERVICE WATER SYSTEM FLOW RATE PROBLEMS.  
 EVENT DATE: 101184 REPORT DATE: 070185 NSSS: WE TYPE: PWR

(NSIC 196198) ON 10-11 SUSPENDED MATERIAL FROM THE COLUMBIA RIVER CAUSED THE PARTIAL PLUGGING OF BOTH THE TRAIN 'A' AND 'B' SERVICE WATER STRAINERS. BOTH SERVICE WATER TRAINS EXPERIENCED REDUCED FLOW CONDITIONS (30 MINS FOR TRAIN 'A' AND 15 MINS FOR TRAIN 'B'). THERE WERE NO ABNORMAL TEMPERATURES OBSERVED IN SYSTEMS OR COMPONENTS COOLED BY THE SERVICE WATER SYSTEM. SUBSEQUENT INVESTIGATION OF THE EFFECT OF SERVICE WATER STRAINER HIGH DIFFERENTIAL PRESSURES ON SERVICE WATER FLOW RATES REVEALED THAT THE VALVES WHICH CONTROL SERVICE WATER FLOW THROUGH THE COMPONENT COOLING WATER HEAT EXCHANGERS WERE POSITIONED SUCH THAT SERVICE WATER FLOW TO EACH COMPONENT COOLING WATER HEAT EXCHANGER WAS LESS THAN THE VALUE LISTED IN THE UPDATED PSAR (17,500 GPM). THESE VALVES HAVE SINCE BEEN REPOSITIONED TO PROVIDE INCREASED SERVICE WATER FLOW TO THE COMPONENT COOLING WATER HEAT EXCHANGERS. THESE EVENTS ARE BEING REPORTED AS ITEMS OF INTEREST TO THE NRC. ALTHOUGH INITIALLY REPORTED BY PHONE PURSUANT TO 10 CFR 50.72(B)(1)(II)(B), SUBSEQUENT CONSIDERATION CONCLUDED THAT OPERATION WAS NOT OUTSIDE THE DESIGN BASIS OF THE PLANT.

[255] TROJAN DOCKET 50-344 LER 84-019 REV 1  
 UPDATE ON EMERGENCY DIESEL GENERATOR AUTO START DUE TO LOSS OF BUS.  
 EVENT DATE: 101284 REPORT DATE: 121484 NSSS: WE TYPE: PWR

(NSIC 196429) ON 10-12-84 AT 12:32 PM, THE PLANT WAS SUBCRITICAL IN MODE 3. MAINTENANCE PERSONNEL WERE INVESTIGATING A PROBLEM IN THE CLOSING CIRCUIT OF V-838 AND V-842, THE FEEDER BREAKERS FROM THE MAIN TRANSFORMERS TO SWITCHYARD 230 KV BUSES V81 AND V82. DURING THIS INVESTIGATION, 12.47 KV BUS H1 AND 4.16 KV BUS A1 WERE INADVERTENTLY DEENERGIZED. THE WEST EMERGENCY DG STARTED AUTOMATICALLY AND REENERGIZED BUS A1. COMPANY METER AND RELAY TECHNICIANS BEGAN INVESTIGATING THE PROBLEM IN THE CLOSING CIRCUITRY OF BREAKERS V-838 AND V-842. AT 12:32 PM, BREAKER V-838 WAS CLOSED FOR TEST PURPOSES. BECAUSE OF A PREVIOUS CIRCUIT MODIFICATION COMPLETED DURING THE 1984 REFUELING OUTAGE, THE PERSONNEL TESTING THE BREAKER WERE NOT FULLY COGNIZANT THAT CLOSING THE BREAKER ACTIVATED A BREAKER FAILURE TIMER WHICH RESULTED IN 230 KV BUS V81 BEING DEENERGIZED. THIS IN TURN CAUSED THE FEEDER BREAKER FROM THE STARTUP TRANSFORMER TO OPEN AND DEENERGIZE 12.47 KV NONENGINEERED SAFETY FEATURE BUS H1 AND 4.16 KV ESF BUS A1. ALSO THERE ARE NO ISOLATION TEST SWITCHES PROVIDED TO PREVENT ACTIVATION OF THE BREAKER FAILURE TIMERS FOR 230 KV BREAKERS V-838 AND V-842. AT 1:00 PM, BUS H1 AND SUBSEQUENTLY BUS A1 WERE REENERGIZED VIA STARTUP TRANSFORMER VR-4, AND THE WEST EMERGENCY DG WAS SHUT DOWN. THE PLANT REMAINED STABLE IN MODE 3 THROUGHOUT THE ELECTRICAL TRANSIENT.

[256] TROJAN DOCKET 50-344 LER 84-018 REV 1  
 UPDATE ON REACTOR TRIP AFTER DEENERGIZATION OF 12.47 KV BUS.  
 EVENT DATE: 101884 REPORT DATE: 121484 NSSS: WE TYPE: PWR

(NSIC 196428) DURING A CONTROLLED PLANT SHUTDOWN TO HOT STANDBY ON 10-11-84 A REACTOR TRIP OCCURRED AT 1423 DUE TO THE ACCIDENTAL DEENERGIZATION OF THE H1, 12.47 KV NON-ENGINEERED SAFETY FEATURE BUS. THE REACTOR TRIP OCCURRED AT 26% POWER. THE DEENERGIZATION HAPPENED WHILE THE CONTROL OPERATOR WAS TRANSFERRING PLANT ELECTRICAL LOADS FROM THE UNIT AUX TRANSFORMER TO THE OFF-SITE SUPPLIED STARTUP TRANSFORMERS. THE DEENERGIZATION OF THE H1 BUS CAUSED THE POWER SUPPLY BREAKERS FOR THE 'A' AND 'C' REACTOR COOLANT PUMPS TO OPEN THUS INITIATING A REACTOR TRIP. THE H1 BUS WAS REENERGIZED AND THE PLANT WAS STABILIZED IN MODE 3. ALL PLANT SAFETY-RELATED SYSTEMS RESPONDED PROPERLY TO THE REACTOR TRIP.

[257] TROJAN DOCKET 50-344 LER 85-009  
 REACTOR TRIP RESULTING FROM UNIT AUXILIARY TRANSFORMER COOLING FAILURE.  
 EVENT DATE: 072085 REPORT DATE: 081985 NSSS: WE TYPE: PWR

(NSIC 196426) ON 7-20-85 AT 0707 PDT, THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP WHICH WAS CAUSED BY A GENERATOR LOCKOUT AND TRIP FROM HIGH TEMPERATURE ON THE UNIT AUXILIARY TRANSFORMER. THE RPS AND PLANT SAFETY SYSTEMS FUNCTIONED AS DESIGNED WITH THE EXCEPTION OF THE DIESEL-DRIVEN AUX FEEDWATER PUMP WHICH TRIPPED ON LOW SUCTION PRESSURE AFTER ITS AUTOMATIC START. AFTER REPAIRING THE TRANSFORMER AND RETESTING THE AUX FEEDWATER SYSTEM, A REACTOR STARTUP WAS CONDUCTED. WHEN THE SEVERITY OF A CONDENSER TUBE LEAK WHICH HAD INITIATED DURING THE TRIP WAS RECOGNIZED, THE REACTOR WAS SHUT DOWN AND MAIN CONDENSER VACUUM BROKEN. CORRECTIVE ACTION WAS TAKEN TO REPAIR THE DEFECTIVE UNIT AUX TRANSFORMER COOLING FAN CONNECTOR WHICH LED TO THE OVERHEATING AND TO RESOLVE THE AUX FEEDWATER PUMP SUCTION TRIP PROBLEM.

[258] TURKEY POINT 3 DOCKET 50-250 LER 85-019  
 SPURIOUS PRESSURIZER LOW PRESSURE SIGNAL CAUSES REACTOR PROTECTION SYSTEM ACTUATION - REACTOR TRIP AND AUXILIARY FEEDWATER INITIATION.  
 EVENT DATE: 072185 REPORT DATE: 082085 NSSS: WE TYPE: PWR

(NSIC 195294) ON JULY 21, 1985 AT 11:41 P.M., UNIT 3 EXPERIENCED A REACTOR TRIP FROM 100% POWER DUE TO A SPURIOUS LOW PRESSURIZER PRESSURE SIGNAL GENERATED IN THE REACTOR PROTECTION SYSTEM (RPS). THE REACTOR TRIP LOGIC IN THE RPS INITIATED A SUBSEQUENT TURBINE TRIP. THE REACTOR TRIP RESULTED IN STEAM GENERATOR LEVELS DECREASING BELOW THE LOW-LOW SETPOINTS, 15% OF THE NARROW RANGE SPAN, DUE TO STEAM GENERATOR SHRINK. THIS INITIATED AN AUTOMATIC START OF AUXILIARY FEEDWATER PUMPS. PLANT PROCEDURES WERE USED TO STABILIZE THE UNIT IN A HOT STANDBY CONDITION. A HEAVY ELECTRICAL AND RAIN STORM WAS IN PROGRESS AT THE TIME OF THE EVENT. THE FINDINGS FROM A POST-TRIP REVIEW INDICATED THAT THE MOST PROBABLE CAUSE WAS A LIGHTNING STRIKE, WHICH AFFECTED PRESSURIZER PRESSURE PROTECTION COMPARATORS GETTING A SPURIOUS PRESSURIZER LOW PRESSURE REACTOR TRIP. THE FOLLOWING CORRECTIVE MEASURES WERE TAKEN: (1) TO ENSURE THAT THE PRESSURIZER PRESSURE AND LEVEL PROTECTION CHANNELS WERE NOT DAMAGED BY THE LIGHTNING STRIKE, A PERIODIC OPERABILITY TEST WAS PERFORMED USING OPERATING PROCEDURE 14004.4. THESE PROTECTION CHANNELS PERFORMED SATISFACTORILY. (2) A REVIEW WAS CONDUCTED OF THE PRINTOUTS OF THE UNIT 3 480 VAC LOAD CENTER VOLTAGE ANALYZERS AND THE UNDERVOLTAGE CIRCUITS SEQUENCE OF EVENTS RECORDER. NO ABNORMAL INDICATIONS WERE EVIDENT ON THESE PRINTOUTS.

[259] TURKEY POINT 3 DOCKET 50-250 LER 85-026  
 HIGH BORON CONCENTRATION IN CHEMICAL AND VOLUME CONTROL SYSTEM BORIC ACID STORAGE TANK.  
 EVENT DATE: 091185 REPORT DATE: 101185 NSSS: WE TYPE: PWR

(NSIC 196207) ON SEPTEMBER 11, THE CHEMISTRY LAB REPORTED THAT THE BORON CONCENTRATION IN THE "A" BORIC ACID STORAGE TANK (BAST), THAT WAS ALIGNED TO UNIT 3, WAS 22,800 PARTS PER MILLION (PPM). TECH SPEC 3.6.C.3 REQUIRES THAT FOR TWO UNITS AT POWER OPERATION, THE BORIC ACID TANKS IN SERVICE SHALL CONTAIN AT LEAST 6160 GALLONS OF 20,000 TO 22,500 PPM BORON SOLUTION. THIS TS DOES NOT HAVE AN ACTION STATEMENT SO TECH SPEC 3.0.1 APPLIES. AT THIS TIME, THE "C" BAST WAS ALIGNED TO UNIT 4 AND THE "B" BAST WAS LINED UP FOR RECIRCULATION. THE "B" BAST, WHICH WAS WITHIN TECH SPEC LIMITS, WAS REALIGNED TO UNIT 3 WITHIN 19 MINUTES, THUS COMPLYING WITH TECH SPEC 3.6.C.3. THE CAUSE OF THE HIGH CONCENTRATION OF BORON IN THE "A" BAST WAS DUE TO A BATCH BORON ADDITION MADE TO THE "A" BAST EARLIER THAT DAY. DURING THIS EVENT, A FLOW PATH FOR BORON INJECTION TO THE REACTOR COOLANT SYSTEM EXISTED FROM THE REFUELING WATER STORAGE TANK (RWST) VIA THE CHARGING PUMPS AND SAFETY INJECTION PUMPS. IN ADDITION, BOTH OF THE

REMAINING BASTS WERE WITHIN THE TECH SPEC REQUIREMENTS FOR VOLUME AND BORON CONCENTRATION. SIMILAR OCCURRENCES: LER 250-83-22.

[260] TURKEY POINT 3 DOCKET 50-250 LER 85-030  
 TARGET AXIAL FLUX DIFFERENCE SURVEILLANCE INTERVAL EXCEEDED.  
 EVENT DATE: 091985 REPORT DATE: 102185 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: TURKEY POINT 4 (PWR)

(NSIC 196267) ON 9-19-85, THE TECH SPEC MONTHLY SURVEILLANCE INTERVAL FOR THE UPDATE OF THE TARGET AXIAL FLUX DIFFERENCE ON UNITS 3 AND 4 WERE FOUND TO HAVE BEEN EXCEEDED. TECH SPEC 3.2.6.C REQUIRES THAT A TARGET AXIAL FLUX DIFFERENCE BE CALCULATED FOR EACH UNIT AT LEAST ONCE PER EFFECTIVE FULL POWER QUARTER; AND IF THE AXIAL FLUX DIFFERENCE HAS NOT BEEN MEASURED IN THE LAST EFFECTIVE FULL POWER MONTH, THE TARGET AXIAL FLUX DIFFERENCE MUST BE UPDATED MONTHLY BY LINEAR INTERPOLATION USING THE MOST RECENT MEASURED VALUE AND THE VALUE PREDICTED FOR THE END OF THE FUEL CYCLE LIFE. THERE IS NO GRACE PERIOD ASSOCIATED WITH THIS TECH SPEC. THE PREVIOUS AXIAL FLUX DIFFERENCE WAS MEASURED ON 8-13-85 FOR BOTH UNITS, AND THE SUBSEQUENT MONTHLY UPDATED TARGET FLUX DIFFERENCE WAS REQUIRED BY FUEL BURNUP ON 9-13-85. THE CAUSE OF THE EVENT WAS DUE TO PERSONNEL OVERSIGHT, BECAUSE THE REQUIRED SURVEILLANCE WAS NOT COMPLETED IN A TIMELY MANNER. THE SURVEILLANCE WAS PERFORMED 6 DAYS PAST THE MONTHLY INTERVAL. MEASUREMENTS OF THE AXIAL FLUX DIFFERENCE TAKEN BETWEEN 8-13-85 AND 9-18-85 INDICATE THAT IT DID NOT EXCEED THE EXISTING TECH SPEC TARGET BAND OF PLUS OR MINUS 5% CALCULATED ON 8-13-85. CORRECTIVE ACTION: 1) UPON IDENTIFICATION OF THE EXCEEDED SURVEILLANCE ON 9-19-85, A NEW TARGET AXIAL FLUX DIFFERENCE WAS CALCULATED FROM MEASURED VALUES, 2) PERSONNEL INVOLVED WERE COUNSELED TO EXERCISE GREATER CARE IN ENSURING THAT REQUIREMENTS ARE MET.

[261] TURKEY POINT 3 DOCKET 50-250 LER 85-028  
 480 VOLT LOAD CENTER UNDERVOLTAGE RELAY SETTING INCORRECT.  
 EVENT DATE: 093085 REPORT DATE: 103085 NSSS: WE TYPE: PWR

(NSIC 196381) ON 9-30-85, FLORIDA POWER AND LIGHT (FPL) DETERMINED THAT ONE 480V LOAD CENTER INSTANTANEOUS UNDERVOLTAGE RELAY SETTING SPECIFIED IN TECH SPEC 3.5 TABLE 3.5-4 HAD BEEN EXCEEDED DURING THE PERIOD OF 10-13-84 TO 5-13-85. THE TECH SPEC INSTANTANEOUS SETPOINTS FOR THE 2 UNDERVOLTAGE RELAYS 327H3B1 AND 327H3B2 FOR THE 3B LOAD CENTER HAD BEEN INCORPORATED INTO THE UNIT 3 OPERATING LICENSE AMENDMENT 104, WHICH WAS ISSUED BY THE NRC ON 8-14-84, AND WAS REQUIRED TO BE IMPLEMENTED BY 10-13-84. THESE 2 RELAYS WERE TESTED AND RESET ON 5-13-85 DURING A PERIODIC CALIBRATION. AS A RESULT, THE 327H3B1 UNDERVOLTAGE RELAY DID NOT FALL WITHIN THE PLANT TECH SPEC TOLERANCES DURING THE PERIOD FROM 10-13-84 THROUGH 5-13-85. THE INCORRECT UNDERVOLTAGE RELAY 327H3B1 SETTING WAS THE RESULT OF A FAILURE TO IMPLEMENT TECH SPEC REQUIREMENTS IN A TIMELY MANNER DUE TO IMPROPER GUIDANCE AND IMPLEMENTATION OF ADMINISTRATIVE PROCEDURE 0103.18, 'FACILITY OPERATING LICENSE AMENDMENTS AND/OR CHANGES'. THESE CORRECTIVE ACTIONS WERE TAKEN: UPON DISCOVERY OF THE INCORRECT RELAY SETTING, THE RELAY WAS RESET ON 5-13-85 TO MEET TECH SPECS. ON 2-7-85 A REVISION OF AP 0103.18 WAS MADE TO ENSURE PROPER AND PROMPT IMPLEMENTATION OF TECH SPEC AMENDMENTS WHEN ISSUED BY THE NRC. UPON IDENTIFICATION OF PROCEDURE CHANGES IN THE PLANT REQUIRED TO IMPLEMENT NEW OR REVISED TECH SPECS, WILL BE ENTERED ON A COMPUTERIZED REG TRACKING SYSTEM KNOWN AS CTRAC.

[262] TURKEY POINT 4 DOCKET 50-251 LER 85-018  
 HEAT TRACING ON BORIC ACID TRANSFER PUMPS' SUCTION LINE FAIL.  
 EVENT DATE: 062385 REPORT DATE: 071985 NSSS: WE TYPE: PWR  
 OTHER UNITS INVOLVED: TURKEY POINT 3 (PWR)

(NSIC 196209) ON JUNE 23, CRITICAL HEAT TRACING CIRCUITS 8A AND 8B WERE DECLARED

OUT OF SERVICE (OOS) AT 12:10 P.M. HEAT TRACING CIRCUITS 8A AND 8B ARE ON THE SUCTION LINES OF THE BORIC ACID TRANSFER PUMPS. TECH SPEC 3.6.D.3 ALLOWS ONLY ONE CHANNEL OF HEAT TRACING TO BE OOS FOR 24 HOURS DURING POWER OPERATION. BECAUSE BOTH CHANNELS WERE OOS, THIS PLACED UNIT 4 UNDER TECH SPEC 3.0.1 REQUIREMENTS. SINCE REPAIRS WERE COMPLETED WELL WITHIN THE TIME REQUIREMENTS OF TECH SPEC 3.0.1, A UNIT SHUTDOWN WAS NOT COMMENCED. THE SECOND CHANNEL WAS RETURNED TO SERVICE AN HOUR LATER THUS COMPLYING WITH TECH SPEC 3.6.D.3. THE CAUSE OF THE EVENT WAS HEAT TRACING CIRCUIT 9 INADVERTENTLY COMING IN CONTACT WITH HEAT TRACING CIRCUIT 8. A SHORT DEVELOPED DISABLING HEAT TRACING CIRCUIT 8. AT THE TIME OF THE EVENT, UNIT 3 WAS IN HOT SHUTDOWN WITH THE REACTOR COOLANT PUMPS IN OPERATION. UNIT 4 WAS HOLDING AT 27% REACTOR POWER FOR CHEMISTRY CHECKS. NO MODE CHANGES WERE MADE ON EITHER UNIT UNTIL BOTH CHANNELS OF HEAT TRACING WERE DECLARED OPERABLE AND PLACED BACK IN SERVICE. DURING THIS EVENT, FLOW PATHS TO THE CORE FOR BORON INJECTION WERE AVAILABLE FOR BOTH UNITS FROM THE REFUELING WATER STORAGE TANK VIA EACH UNIT'S ASSOCIATED CHARGING PUMPS AND SAFETY INJECTION PUMPS. SIMILAR OCCURRENCES: 250-83-015 AND 251-82-014.

[263] TURKEY POINT 4 DOCKET 50-251 LER 85-021  
 DROPPED CONTROL RODS CAUSE TURBINE RUNBACKS AND SUBSEQUENT REACTOR TRIP.  
 EVENT DATE: 082085 REPORT DATE: 091985 NSSS: WE TYPE: PWR  
 VENDOR: BAILEY METER COMPANY  
 CROUSE-HINDS  
 ROCKBESTOS COMPANY  
 WESTINGHOUSE ELECTRIC CORP.

(NSIC 196433) ON 8-20-85 A TURBINE RUNBACK OCCURRED WHEN THE SHUTDOWN BANK 'B' ROD CLUSTER K-8 DROPPED INTO THE CORE. THE UNIT WAS STABILIZED. A SECOND TURBINE RUNBACK TO APPROX 24 MW(E) OCCURRED WHEN SHUTDOWN BANK 'A' ROD CLUSTER N-9 DROPPED INTO THE CORE. AS A RESULT OF THE ERRATIC BEHAVIOR OF A MAIN FEEDWATER FLOW CONTROL VALVE (FCV-498) IN COMBINATION WITH A NORMAL SG LEVEL TRANSIENT FOLLOWING A TURBINE RUNBACK, THE LEVEL IN THE 'C' SG ROSE RAPIDLY. UPON REACHING THE 80% HI-HI SETPOINT, 2 OF 3 LEVEL CHANNELS OF THE 'C' SG INITIATED A TRIP OF THE TURBINE GENERATOR AND BOTH MAIN FEEDWATER PUMPS AND ISOLATED MAIN FEEDWATER FLOW TO THE SG'S. THE RPS SUBSEQUENTLY TRIPPED THE REACTOR. UPON TRIPPING THE SG FEEDWATER PUMPS, ESF LOGIC INITIATED AUX FEEDWATER. THE PLANT WAS STABILIZED IN A HOT STANDBY CONDITION. THE FIRST ROD DROP OF SHUTDOWN CLUSTER K-8 RESULTED FROM AN ELECTRICALLY SHORTED STATIONARY GRIPPER COIL IN THE CONTROL ROD DRIVE MECHANISM. THE SECOND ROD DROP OF SHUTDOWN ROD CLUSTER N-9 RESULTED FROM A BAD ELECTRICAL CONNECTION AT THE CONTROL ROD DRIVE MECHANISM. THE ERRATIC OPERATION OF MAIN FEEDWATER FLOW CONTROL VALVE, FCV-498 WAS FOUND TO HAVE RESULTED FROM A ZERO DRIFT CONDITION OF THE VALVE POSITIONER. CORRECTIVE ACTIONS: AFTER THE FIRST ROD DROPPED, AN ATTEMPT WAS MADE TO RETRIEVE THE ROD CLUSTER K-8. A RADIAL FLUX TILT CALCULATION WAS PERFORMED IN ACCORDANCE WITH PLANT PROCEDURES.

[264] VERMONT YANKEE DOCKET 50-271 LER 84-012 REV 1  
 UPDATE ON UNIDENTIFIED VENT PATH FROM SECONDARY CONTAINMENT.  
 EVENT DATE: 071784 REPORT DATE: 081684 NSSS: GE TYPE: BWR

(NSIC 196256) WHILE PERFORMING FUEL MOVES DURING SHUTDOWN, THE PIPING CONTRACTOR PREPARED TO PERFORM WORK ON THE SERVICE WATER PORTION OF THE '1B' REACTOR BLDG AIR CONDITIONING (RBAC) UNIT. THE CONTRACTOR DID NOT PROPERLY TAG OUT THE RBAC UNIT AS REQUIRED BY PLANT PROCEDURES. THIS RESULTED IN THE '2' RBAC SUPPLY LINE INSPIRATING FOR 4 HRS INTO THE SERVICE WATER SYSTEM AND EXHAUSTING AT THE DISCHARGE STRUCTURE. THE SHIFT SUPERVISOR NOTED THE PROBLEM DURING A TOUR OF THE REACTOR BLDG. HE DETERMINED THAT THIS FLOW COULD BYPASS STANDBY GAS TREATMENT AND IMMEDIATELY 1) DECLARED SECONDARY CONTAINMENT POTENTIALLY INOPERABLE, 2) STOPPED ALL FUEL MOVES AND 3) PROPERLY ISOLATED THE SYSTEM. SUBSEQUENT ANALYSIS SHOWED THAT OPERATIONS WOULD HAVE BEEN ABLE TO PROPERLY RESPOND TO A REFUEL ACCIDENT

(HAD IT OCCURRED DURING THIS 4 HR PERIOD) WITHOUT SIGNIFICANT RELEASE TO THE ENVIRONMENT.

[265] VERMONT YANKEE DOCKET 50-271 LER 84-019 REV 1  
 UPDATE ON LOOSE CIRCUIT BOARD MOUNTING SCREWS IN ROSEMOUNT TRANSMITTERS.  
 EVENT DATE: 080884 REPORT DATE: 110784 NSSS: GE TYPE: BWR  
 VENDOR: ROSEMOUNT, INC.

(NSIC 196257) AS A FOLLOWUP TO AN OCCURRENCE ON 6-15-84 WHERE INDICATION WAS LOST FROM A ROSEMOUNT 1152T0280 LEVEL TRANSMITTER DUE TO THE CIRCUIT BOARD MOUNTING SCREWS COMING LOOSE, MOUNTING SCREWS ON ALL OTHER MODEL 1152T0280 TRANSMITTERS WERE CHECKED FOR TIGHTNESS. LOOSE SCREWS WERE FOUND IN 37% OF THE INSTALLED TRANSMITTERS. ALL SCREWS WERE RETIGHTENED AND PROPER CALIBRATION WAS VERIFIED.

[266] WATERFORD 3 DOCKET 50-382 LER 85-027  
 MANUAL ACTUATION OF REACTOR PROTECTIVE SYSTEM.  
 EVENT DATE: 062685 REPORT DATE: 072685 NSSS: CE TYPE: PWR

(NSIC 196299) AT 2126 HRS ON 6-26-85, WATERFORD 3 STEAM ELECTRIC STATION WAS AT 91% REACTOR POWER WHEN OPERATIONS PERSONNEL RECEIVED INFO OF A FIRE IN FEEDWATER PUMP A. THE PUMP WAS SECURED AND REACTOR POWER WAS REDUCED IN ORDER TO COMPENSATE FOR THE DECREASE IN FEEDWATER FLOW. AN UNUSUAL EVENT WAS DECLARED AT 2130 HRS. AT 2131 HRS THE CONTROL ROOM WAS INFORMED BY PERSONNEL ON THE SCENE THAT THE B FEEDWATER PUMP, RATHER THAN THE A PUMP, WAS ON FIRE. SINCE THE 'A' PUMP WAS ALREADY SECURED, AND SINCE SG WATER LEVELS WERE DECREASING, OPERATIONS PERSONNEL TRIPPED THE MAIN TURBINE AND REACTOR. THE FIRE WAS EXTINGUISHED BY PLANT PERSONNEL AT 2136 HRS AND WATERFORD 3 SECURED FROM THE UNUSUAL EVENT SHORTLY THEREAFTER. THE FIRE, STARTED BY A SMALL OIL LEAK, WAS LIMITED TO A SMALL PORTION OF THE OUTER WRAPPING OF INSULATION ON THE FEEDWATER PIPING.

[267] WATERFORD 3 DOCKET 50-382 LER 85-039  
 ELECTRICAL NOISE CAUSES SPURIOUS ACTUATIONS OF CONTROL ROOM VENTILATION RADIATION MONITORS.  
 EVENT DATE: 091285 REPORT DATE: 101185 NSSS: CE TYPE: PWR

(NSIC 196247) AT 0936 HRS ON 9-12 WATERFORD 3 WAS IN MODE 5 WHEN THE FIRST OF 4 AUTOMATIC ACTUATIONS OF THE ESP'S PORTION OF THE CONTROL ROOM VENTILATION SYSTEM OCCURRED. THIS CONDITION RECURRED ON 9-19 (0210 HRS, MODE 3), 27 (0920 HRS, 85% POWER), AND 10-7 (1045 HRS, MODE 5), 1985. IN EACH CASE AIR SAMPLES TAKEN BY HEALTH PHYSICS TECHNICIANS REVEALED THAT RADIATION LEVELS WERE WITHIN NORMAL TOLERANCES. EACH OF THE ACTUATIONS WERE DUE TO ELECTRICAL SPIKES AND/OR SPURIOUS ACTUATIONS OF THE CONTROL ROOM OUTSIDE AIR INTAKE MONITORS. SIMILAR EVENTS: 382/85-002; 382/85-005; 382/85-030; AND 382/85-036.

[268] WOLF CREEK 1 DOCKET 50-482 LER 85-063  
 CLOSED DISCHARGE VALVE ISOLATED CENTRIFUGAL CHARGING PUMP 'A' IN VIOLATION OF TECHNICAL SPECIFICATIONS.  
 EVENT DATE: 083085 REPORT DATE: 092385 NSSS: WE TYPE: PWR

(NSIC 196097) AT APPROX 2200 CDT, ON 8-11-85, WITH THE PLANT IN MODE 3, HOT STANDBY, A MANUAL ISOLATION VALVE ON THE 'A' CENTRIFUGAL CHARGING PUMP DISCHARGE LINE WAS FOUND CLOSED. THIS CONDITION CAUSED THE CENTRIFUGAL CHARGING PUMP TO BE INOPERABLE IN VIOLATION OF TECH SPECS 3.1.2.4 AND 3.5.2. THE MANUAL VALVE WAS OPENED IMMEDIATELY UPON DISCOVERY RETURNING 'A' CENTRIFUGAL CHARGING PUMP TO OPERABLE STATUS. THE 'A' CENTRIFUGAL CHARGING PUMP HAD BEEN TAKEN OUT OF SERVICE ON 8-27 FOR MAINTENANCE. FOLLOWING COMPLETION OF THE MAINTENANCE, A SURVEILLANCE TEST DEMONSTRATED PROPER PUMP PERFORMANCE AND THE PUMP WAS DECLARED OPERABLE ON

8-30-85. A PERSONNEL ERROR IN THE PERFORMANCE OF THE POST MAINTENANCE SURVEILLANCE TEST LEFT THE MANUAL VALVE CLOSED RATHER THAN IN ITS REQUIRED OPEN POSITION AND A REVIEW OF THE COMPLETED SURVEILLANCE PROCEDURE FAILED TO IDENTIFY THE ERROR. THIS RESULTED IN THE CENTRIFUGAL CHARGING PUMP BEING INOPERABLE FOR LONGER THAN THE 72 HRS ALLOWED BY TECH SPECS. THE SURVEILLANCE TEST PROCEDURE HAS BEEN REVISED TO PREVENT FUTURE SIMILAR ERRORS. ADDITIONAL TRAINING ON POST TEST REVIEWS IS ALSO PLANNED.

[269] WOLF CREEK 1 DOCKET 50-482 LER 85-061  
 ERRONEOUS CHLORINE MONITOR SIGNALS CAUSE CONTROL ROOM VENTILATION ISOLATIONS.  
 EVENT DATE: 091485 REPORT DATE: 101485 NSSS: WE TYPE: PWR  
 VENDOR: M D A SCIENTIFIC, INC.

(NSIC 196410) ON SEPTEMBER 14, 1985, AT APPROXIMATELY 1338 CDT, AND ON OCTOBER 3, 1985, AT APPROXIMATELY 2039 CDT, A CONTROL ROOM VENTILATION ISOLATION OCCURRED DUE TO A CHLORINE MONITOR SIGNALING HIGH CHLORINE LEVELS IN OUTSIDE AIR MAKEUP TO THE CONTROL BUILDING VENTILATION SYSTEM. ALL REQUIRED ENGINEERED SAFETY FEATURES EQUIPMENT RESPONDED PROPERLY. THE ISOLATIONS OCCURRED DUE TO A CHLORINE MONITOR SENSING HIGH CHLORINE LEVELS DUE TO BREAKAGE OF THE CHEMICALLY SENSITIVE PAPER TAPE USED TO DETECT CHLORINE IN THE MONITOR ANALYSIS UNIT. NO CHLORINE WAS PRESENT AS EVIDENCED BY NORMAL READINGS ON THE REDUNDANT CHLORINE MONITOR. THE PAPER TAPE WAS REPLACED AND THE INSTRUMENT RETURNED TO SERVICE. TWO PREVIOUS SIMILAR OCCURRENCES ARE DISCUSSED IN LICENSEE EVENT REPORT 85-052-00. INVESTIGATION OF THE PAPER TAPE BREAKAGE HAS NOT REVEALED ANY SPECIFIC CAUSE FOR THE BREAKAGE AND INVESTIGATIONS ARE CONTINUING. TESTING USING A SPARE CHLORINE MONITOR HAS ALSO BEEN INITIATED. SOME PARTS IN THE PAPER TAPE DRIVE MECHANISM WERE REPLACED AFTER THE FIRST EVENT AS A PRECAUTIONARY MEASURE.

[270] WPPSS 2 DOCKET 50-397 LER 85-050  
 FIRE PROTECTION SYSTEM INOPERABLE IN CABLE SPREADING ROOM.  
 EVENT DATE: 072385 REPORT DATE: 081985 NSSS: GE TYPE: BWR

(NSIC 196006) WHILE PERFORMING AN 18 MONTH SURVEILLANCE ON THE CABLE SPREADING ROOM PRE-ACTION FIRE PROTECTION SPRINKLER ON 7-23-85, IT WAS DETERMINED THAT THE SOLENOID VALVE CONTROLLING FLOW TO THE SPRINKLER HEADER WOULD NOT OPEN. THE VALVE WAS DISASSEMBLED AND IT WAS DISCOVERED THAT THE VALVE BONNET HAD BEEN INSTALLED BACKWARDS, THUS RENDERING THE VALVE INOPERABLE. THIS VALVE HAD BEEN PREVIOUSLY WORKED ON IN APRIL (4-5-85) WHEN THE BONNET WAS REMOVED AND THE DIAPHRAGM AND VALVE SEAT WERE REPLACED TO STOP LEAKAGE FROM THE VALVE (MWR-AX-4065). FOLLOWING THE REPAIR, AN INSPECTION FOR LEAKAGE WAS COMPLETED BUT THE VALVE WAS NOT STROKE TESTED. VALVE STROKING FOLLOWING THE INITIAL REPAIR WOULD HAVE IDENTIFIED THIS PROBLEM. A CONTINUOUS FIRE WATCH WAS INITIATED. THE VALVE WAS REPAIRED AND RETURNED TO OPERABLE STATUS THAT SAME DAY.

[271] ZION 1 DOCKET 50-295 LER 84-035 REV 1  
 UPDATE ON INOPERABLE CONTAINMENT SPRAY HEADER SNUBBER.  
 EVENT DATE: 102484 REPORT DATE: 030185 NSSS: WE TYPE: PWR  
 VENDOR: GRINNELL CORP.

(NSIC 196195) DURING A UNIT 1 CONTAINMENT ENTRY DURING POWER OPERATION, 1 SAFETY-RELATED SNUBBER WAS FOUND INOPERABLE. THE SNUBBER (1CSRS-1015) WHICH IS ON THE CONTAINMENT SPRAY HEADER, WAS FOUND DISCONNECTED AT THE LOWER CLEVIS. MECHANICAL MAINTENANCE, TECHNICAL STAFF, AND THE OPERATING ENGINEER WERE INFORMED OF THIS DEGRADED CONDITION AND THE SNUBBER WAS RECONNECTED WITHIN 24 HRS. THIS WAS WITHIN THE 72 HR TIME LIMIT FOR CONTINUED REACTOR OPERATION AS STATED IN TECH SPEC 3.22.3. THE SNUBBER WAS DISCONNECTED DURING REMOVAL OF THE EQUIPMENT HATCH AND PLATFORM, AND DUE TO AN INADEQUATE PROCEDURE THE SNUBBER WAS LEFT DISCONNECTED. THE PROCEDURE HAS BEEN UPGRADED WITH CHECK POINTS AND SIGNOFFS TO

TRACK SNUBBERS WHICH MUST BE REMOVED DURING CSD FOR REMOVAL OF THE EQUIPMENT HATCH. THIS WILL ENSURE THAT ALL SNUBBERS WHICH ARE REMOVED FOR WORK WILL BE RECONNECTED BEFORE LEAVING CSD.

[272] ZION 1 DOCKET 50-295 LER 85-031  
FAILURE OF PENETRATION PRESSURIZATION SYSTEM TO MAINTAIN REQUIRED PRESSURE.  
EVENT DATE: 081485 REPORT DATE: 091285 NSSS: WE TYPE: PWR  
VENDOR: CONSOLIDATED SAFETY RELIEF VALVES

(NSIC 196438) AT 0815 ON 8-14-85 THE PENETRATION PRESSURIZATION LOW PRESSURE ALARM CAME IN. INVESTIGATION REVEALED THAT ZONE 4 PRESSURE WAS 46 PSIG WITH THE REGULATING VALVE, 1PCV-PP04, FULLY OPEN AND AN INDICATED LEAKAGE OF 285 SCFH. THE CAUSE OF THE LOW PRESSURE CONDITION WAS HIGH FLOW THROUGH 2 PREVIOUSLY IDENTIFIED LEAKING WELD CHANNELS IN COMBINATION WITH A LEAKING RELIEF VALVE, 1PP0042. TECH SPEC 3.9.2 REQUIRES PENETRATION PRESSURIZATION PRESSURE TO BE MAINTAINED GREATER THAN 47 PSIG. THE REGULATOR BYPASS VALVE WAS IMMEDIATELY THROTTLED OPEN TO RAISE ZONE PRESSURE AND LATER THE RELIEF VALVE WAS REPAIRED AND THE LEAKING WELD CHANNELS ISOLATED.

[273] ZION 2 DOCKET 50-304 LER 84-024 REV 1  
UPDATE ON FAILURE OF SAFEGUARDS TRAIN B TO RESET FROM TEST.  
EVENT DATE: 082184 REPORT DATE: 102684 NSSS: WE TYPE: PWR  
VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 196260) AT THE CONCLUSION OF PT-10B ON UNIT 2, SAFEGUARDS TRAIN B WOULD NOT RESET FROM TEST. SAFETY INJECTION MATRIX WAS SET UP AND THE CONCLUDING PROCEDURE WAS PERFORMED AGAIN. THE TRAIN THEN RESET FROM TEST PROPERLY. THIS HAS BEEN A RECURRING PROBLEM WITH THIS TRAIN OF SAFEGUARDS (REFERENCE LER'S 304/83-038 AND 304/83-046). THE INITIAL RESOLUTION TO THIS PROBLEM WAS TWO PART. THE REPLACEMENT OF THE TEST RELAYS APPEARED TO HAVE CORRECTED THE PROBLEM SINCE THE TRAIN DID RESET FROM TEST PROPERLY AFTER THE RELAY REPLACEMENT. APPARENTLY THESE RELAYS WERE NOT THE CAUSE OF THE PROBLEM. A MECHANICAL LATCHING RELAY WAS REPLACED ON 9-19-84 AND THE TRAIN RESET FROM TEST PROPERLY A NUMBER OF TIMES. ON 10-18-84, THE TRAIN WAS AGAIN PLACED IN TEST FOR PT-10A & B AND AGAIN RESET PROPERLY. NO FURTHER ACTION IS REQUIRED.

[274] ZION 2 DOCKET 50-304 LER 85-014  
DIESEL GENERATOR TRIPS ON OVERSPEED.  
EVENT DATE: 071885 REPORT DATE: 081585 NSSS: WE TYPE: PWR  
VENDOR: WOODWARD GOVERNOR COMPANY

(NSIC 196225) ON 7-18 THE '2B' RHR PUMP WAS OUT OF SERVICE. '2B' DG WAS STARTED FOR PT-11, 'DG LOADING TEST'. THE ENGINE REACHED ITS RATED SPEED BUT CONTINUED TO DRIFT UPWARD. THE OPERATOR WAITED FOR THE ENGINE SPEED TO STABILIZE. WHEN CORRECTIVE ACTION WAS TAKEN TO LIMIT THE SPEED DRIFT, SLUGGISH GOVERNOR RESPONSE LIMITED THE CORRECTIVE ACTION AND THE ENGINE TRIPPED ON OVERSPEED. A GSEP UNUSUAL EVENT WAS DECLARED FOR HAVING A DG AND RHR PUMP INOPERABLE. ACCEPTABLE GOVERNOR OPERATION WAS VERIFIED DURING MAINTENANCE RUNS. A TEMPORARY PROCEDURE CHANGE TO PT-11 WAS INITIATED TO LIMIT INHERENT SPEED RISE DURING PT-11 TESTING. ENGINE OPERABILITY WAS VERIFIED BY SUCCESSFULLY COMPLETING A PT-11 TEST. AT 0746 ON 7-18-85 THE GSEP UNUSUAL EVENT WAS TERMINATED. ON 7-25-85 THE GOVERNOR ON '2B' DG WAS REPLACED. THE TEMPORARY PROCEDURE CHANGE WAS CANCELLED. NO FURTHER CORRECTIVE ACTION WAS NECESSARY.

[illegible]

(NSIC 195903) WHILE PERFORMING PT-210 (AIRCRAFT FIRE DETECTION SYSTEM TEST) ON 8-9-85 AT 0930 HRS, THE 2A AND 2B DG ROOM VENTILATION FAN OUTLET BUTTERFLY DAMPERS FAILED TO CLOSE WHEN THEIR RESPECTIVE FANS WERE TURNED OFF. UNIT 2 WAS AT 55% POWER AT THE TIME. THE PROBLEM WAS IDENTIFIED AS A STUCK PILOT VALVE ON THE AIR LINE CONTROLLING EACH DAMPER'S STROKING. THE PILOT VALVES WERE REPLACED AND THE DAMPERS WERE RETESTED VERIFYING PROPER OPERATION.

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## 13. ABSTRACT (200 words or less)

This monthly report contains Licensee Event Report (LER) operational information that was processed into the LER data file of the Nuclear Safety Information Center (NSIC) during the one month period identified on the cover of the document. The LERs, from which this information is derived, are submitted to the Nuclear Regulatory Commission (NRC) by nuclear power plant licensees in accordance with federal regulations. Procedures for LER reporting for revisions to those events occurring prior to 1984 are described in NRC Regulatory Guide 1.16 and NUREG-1061, *Instructions for Preparation of Data Entry Sheets for Licensee Event Reports*. For those events occurring on and after January 1, 1984, LERs are being submitted in accordance with the revised rule contained in Title 10 Part 50.73 of the Code of Federal Regulations (10 CFR 50.73 - Licensee Event Report System) which was published in the Federal Register (Vol. 48, No. 144) on July 26, 1983. NUREG-1022, *Licensee Event Report System - Description of Systems and Guidelines for Reporting*, provides supporting guidance and information on the revised LER rule. The LER summaries in this report are arranged alphabetically by facility name and then chronologically by event date for each facility. Component, system, keyword, and component vendor indexes follow the summaries. Vendors are those identified by the utility when the LER form is initiated; the keywords for the component, system, and general keyword indexes are assigned by the computer using correlation tables from the Sequence Coding and Search System.

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