
Licensee Event Report (LER) Compilation

For month of September 1984

Oak Ridge National Laboratory

Prepared for
U.S. Nuclear Regulatory
Commission

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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 those events (and revisions to those events) occurring prior to 1984 are described in NRC Regulatory Guide 1.16 and NUREG-0161, *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 directed to:

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[1] ARKANSAS NUCLEAR 1 DOCKET 50-313 LER 82-028 REV 1
 UPDATE ON FIRE PROTECTION SYSTEM PUMP DIESEL FAILS TO START.
 EVENT DATE: 090982 REPORT DATE: 070284 NSSS: BW TYPE: PWR

(NSIC 190519) ON 9/9/82, WHILE AT 91% POWER, THE DIESEL DRIVEN FIRE PUMP (P-6B) FAILED TO START WHEN USING THE 'B' BATTERY BANK DURING A SURVEILLANCE, WHICH IS REQUIRED PER TECH SPEC 4.20.3. P-6B WAS OPERABLE USING THE REDUNDANT 'A' BATTERY BANK, AND THE REDUNDANT ELECTRIC MOTOR DRIVEN FIRE PUMP (P-6A) WAS OPERABLE. THIS OCCURRENCE IS REPORTABLE PER TECH SPEC 6.12.3.2.B. THE CAUSE OF THE OCCURRENCE WAS NORMAL END OF LIFE. THE BATTERIES ON 'B' BANK HAVE BEEN IN SERVICE FOR 35 MONTHS. THE 'B' BATTERY BANK WAS CHARGED FOR 9 HRS AFTER WHICH THE DIESEL FIRE PUMP WAS STARTED SUCCESSFULLY ON 'B' BANK. A SUBSEQUENT START ATTEMPT ON 'B' BATTERY BANK 12 HRS LATER WAS UNSUCCESSFUL; AND, AS A RESULT, THE 'B' BANK BATTERIES WERE REPLACED ON 9/11/82. THE ELECTRICAL PERIODIC TESTS PROCEDURE WAS REVISED ON 10/21/82 TO INCLUDE STEPS FOR REPLACEMENT OF BATTERIES FOR THE DIESEL FIRE PUMP BATTERY BANK ON A 2 YR STAGGERED BASIS. CONSEQUENTLY, THE 'A' BANK BATTERIES WERE REPLACED ON 9/8/83. THE DIESEL FIRE PUMP HAS NOT FAILED TO START AS A RESULT OF INSUFFICIENT BATTERY CAPACITY SINCE THE ORIGINAL REPORT.

[2] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 84-012
 PRIMARY OVERCURRENT PROTECTION DEVICE ON CONTAINMENT PENETRATION INOPERABLE.
 EVENT DATE: 090578 REPORT DATE: 061884 NSSS: CE TYPE: PWR

(NSIC 190631) DURING A REVIEW OF DOCUMENTATION TO VERIFY THE CORRECTNESS OF A PROPOSED TECH SPEC CHANGE REQUEST REGARDING CONTAINMENT PENETRATION OVERCURRENT PROTECTION DEVICES, AN APPARENT ERROR WAS NOTED IN A VENDOR ELECTRICAL DRAWING FOR REACTOR COOLANT SYSTEM SAMPLING CABINET 2C116. THE DRAWING INDICATED THAT FUSE PROTECTION, BEING RELIED UPON AS THE PRIMARY PENETRATION OVERCURRENT PROTECTION DEVICE, WAS BYPASSED BY JUMPERS. SINCE NO OTHER DOCUMENTATION WAS FOUND THAT INDICATED THE JUMPERS HAD BEEN REMOVED SUBSEQUENT TO RECEIPT AND INSTALLATION OF THE CABINET, A SPECIAL INVESTIGATION WAS PERFORMED ON 5/18/84, AT 1620 HRS TO ASCERTAIN THE EXISTENCE OF THE JUMPERS. THE JUMPERS WERE FOUND TO EXIST AS INDICATED ON THE DRAWINGS. AN ENGINEERING EVALUATION WAS PROMPTLY PERFORMED TO ALLOW REMOVAL OF THE JUMPERS, AND THE NECESSARY WIRING CHANGES WERE COMPLETED BY 1800 HRS ON 5/18/84.

[3] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 81-038 REV 1
 UPDATE ON THREE FAILURES OF EPW PUMP.
 EVENT DATE: 100981 REPORT DATE: 071684 NSSS: CE TYPE: PWR

(NSIC 190682) ON 10/9/81, WHILE IN MODE 3, THE STEAM DRIVEN EMERGENCY FEEDWATER PUMP, 2P7A, TRIPPED ON OVERSPEED WHILE THE MONTHLY SURVEILLANCE TEST WAS BEING PERFORMED. ON 10/11/81, THE EPW PUMP, 2P7A, TRIPPED ON OVERSPEED FOLLOWING A MANUAL START DURING A UNIT TRIP RECOVERY. ON 10/21/81, THE EPW PUMP, 2P7A, TRIPPED ON OVERSPEED AFTER RECEIVING AN AUTO START SIGNAL FOLLOWING A TURBINE/REACTOR TRIP. THE ELECTRIC DRIVEN EPW PUMP, 2P7B, WAS AVAILABLE AT ALL TIMES. REPORTABLE PER TECH SPEC 6.9.1.9.B. THE 10/9/81, OCCURRENCE WAS BELIEVED TO BE CAUSED BY AN OIL LEAK IN THE TURBINE HYDRAULIC SYSTEM. THE OIL LEAK WAS REPAIRED, AND THE EPW PUMP, 2P7A, WAS TESTED, FOUND TO BE OPERABLE, AND RETURNED TO SERVICE. THE 10/11/81 OCCURRENCE WAS ATTRIBUTED TO CONDENSATION IN THE STEAM LINES WHICH RESULTED FROM INSULATION NOT BEING REINSTALLED AND A STEAM TRAP NOT BEING UNISOLATED AFTER A MAINTENANCE ACTIVITY. THE INSULATION WAS REPLACED AND THE TRAP WAS UNISOLATED. ALSO, THE TRAP BYPASSES WERE OPENED TO ENSURE THAT CONDENSATION WOULD NOT ACCUMULATE IN THE LINES.

[4] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 82-012 REV 1
 UPDATE ON CRACKED HEAD OF CHARGING PUMP.
 EVENT DATE: 033182 REPORT DATE: 052584 NSSS: CE TYPE: PWR
 VENDOR: GAULIN CORP.

(NSIC 190521) ON 3/31/82 WHILE IN MODE 1 AT 100% FULL POWER, CHARGING PUMP 2P-36A WAS FOUND TO BE LEAKING DURING A ROUTINE OPERATIONS TOUR. PUMP 2P-36A WAS OPERATING AT THE TIME OF THE DISCOVERY. CHARGING PUMPS 2P-36B AND 2P-36C WERE OPERABLE AT THE TIME OF THE OCCURRENCE. THE LEAK WAS SMALL AND DRAINED TO THE RADWASTE SYSTEM. THIS OCCURRENCE IS REPORTABLE PER TECH SPEC 6.9.1.9.D, AS AN ABNORMAL DEGRADATION OF A SYSTEM DESIGNED TO CONTAIN RADIOACTIVE MATERIAL. THE CAUSE OF THE LEAK WAS A CRACKED CYLINDER HEAD. THE PUMP 2P-36A WAS TAKEN OUT OF SERVICE AND DECLARED INOPERABLE. PUMPS 2P-36B AND 2P-36C WERE LINED UP TO SATISFY TECH SPEC 3.1.2.4. AN ENGINEERING EVALUATION DETERMINED THAT THE CRACKED HEAD WAS CAUSED BY PUMP STARVATION AND SUBSEQUENT SHOCK LOADING OF THE CYLINDER WALL. FOLLOW-UP INVESTIGATION REVEALED THAT A LOSS OF VOLUME CONTROL TANK (VCT) LEVEL HAD OCCURRED PREVIOUSLY. THE INDICATED LEVEL AT THIS TIME DECREASED FROM 72% TO 57%. SUBSEQUENTLY THE CHARGING PUMP FLOW INDICATION BECAME ERRATIC.

[5] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 83-005 REV 1
 UPDATE ON EMERGENCY FEEDWATER CONTROL VALVE FAILS TO CLOSE.
 EVENT DATE: 020183 REPORT DATE: 052584 NSSS: CE TYPE: PWR
 VENDOR: BROWN & SHARPE
 WESTON HYDRAULICS DIVISION

(NSIC 190529) ON 2/1/83, WHILE IN MODE 3, EMERGENCY FEEDWATER (EFW) CONTROL VALVE 2CV-1025-1 FAILED TO CLOSE WHILE STEAM GENERATOR (SG) LEVEL ADJUSTMENTS WERE BEING MADE. 2CV-1038-1 IS THE EFW TRAIN TO 'A' STEAM GENERATOR. THE REDUNDANT EFW PUMP 2P-7A AND ITS ASSOCIATED TRAIN WERE OPERABLE AND WERE PLACED INTO OPERATION TO FEED 'A' STEAM GENERATOR WHILE SP-7B CONTINUED TO FEED 'B' STEAM GENERATOR. ON 2/2/83, 2CV-1025-1 WAS REMOVED FROM SERVICE FOR MAINTENANCE WHEN IT WAS NOTICED THAT THE HYDRAULIC PUMP WAS RUNNING CONTINUOUSLY. IN BOTH OCCURRENCES, 2CV-1025-1 WAS RETURNED TO SERVICE WITHIN THE TIME LIMITS OF TECH SPEC 3.7.1.2. THIS OCCURRENCE IS REPORTABLE PER TECH SPEC 6.9.1.9.B. PREVIOUS OCCURRENCES REGARDING HYDRAULIC PROBLEMS WERE REPORTED IN LER'S 79-043, 79-088, 79-089, 79-092, 80-003, 81-032 AND 82-019. THE CAUSE OF THE 2/1/83 OCCURRENCE COULD NOT BE DETERMINED AS THE FAILURE COULD NOT BE REPEATED DURING TROUBLESHOOTING. IT WAS SUSPECTED THAT LOW HYDRAULIC FLUID MAY HAVE CAUSED THE OCCURRENCE. HYDRAULIC FLUID WAS ADDED AND THE AIR WAS BLED FROM THE SYSTEM. THE VALVE WAS PROVEN OPERABLE AND RETURNED TO SERVICE. THE CAUSE OF THE 2/2/83 PROBLEM WAS WEAR OF THE HYDRAULIC PUMP. ALTHOUGH THE VALVE WOULD STROKE PROPERLY, THE HYDRAULIC PUMP WOULD NOT DEVELOP SUFFICIENT DISCHARGE PRESSURE TO ALLOW THE PUMP MOTOR TO SHUT OFF.

[6] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 83-028 REV 1
 UPDATE ON REACTOR COOLANT GROSS ACTIVITY ANALYSIS NOT PERFORMED.
 EVENT DATE: 062783 REPORT DATE: 051884 NSSS: CE TYPE: PWR

(NSIC 190530) ON JUN 27, 1983, WITH THE UNIT AT 100% POWER, THE GROSS ACTIVITY DETERMINATION OF THE REACTOR COOLANT (RC) WAS NOT PERFORMED WITHIN THE 72 HRS (+25%) TIME PERIOD AS REQUIRED BY TECH SPEC 4.4.8. ANALYSES OF THE RC THAT WERE PERFORMED INCLUDE GAMMA SPECTROSCOPY, GROSS BETA, TRITIUM, AND I-131 DOSE EQUIVALENT IN ADDITION TO THE CONTINUOUS ON-LINE TRENDING OF GROSS ACTIVITY AND I-131 FROM THE RCS LETDOWN MONITOR. OTHER LER'S CONCERNING FAILURE TO MEET REQUIRED SURVEILLANCE TIME LIMITS INCLUDE (50-368) 78-036, 79-041, 79-049, 79-056, AND 80-010. THIS EVENT IS REPORTABLE PER TECH SPEC 6.9.1.9.B. THIS EVENT WAS CAUSED BY CONFUSION OVER TECH SPEC REQUIREMENTS FOR GROSS ACTIVITY DETERMINATION. ON JUN 25, 1983, WHEN THE SURVEILLANCE WAS SCHEDULED, THE UNIT WAS IN MODE 3, AND THE PERSONNEL ASSIGNED TO PERFORM THE SURVEILLANCE WERE NOT

CERTAIN THAT IT WAS NECESSARY. A SUBSEQUENT CONVERSATION REVEALED THAT THE TEST WAS UNNECESSARY AND, THEREFORE, IT WAS NOT PERFORMED. THE 72 HR (+25%) TIME LIMIT EXPIRED AT 0540 HRS ON JUN 27. CORRECTIVE ACTIONS WERE TO PERFORM THE SURVEILLANCE ON JUN 28 (GROSS ACTIVITY WAS WITHIN SPECIFICATION) AND TO COUNSEL THE INVOLVED PERSONNEL ON TECH SPEC REQUIRED ANALYSES, THEIR FREQUENCIES, OPERATING MODES FOR WHICH THEY ARE REQUIRED, AND THE LOCATIONS OF THE REQUIREMENTS WITHIN THE TECH SPEC. TO PREVENT RECURRENCE, FORMAL TRAINING FOR APPROPRIATE PERSONNEL ON THE TECH SPEC REQUIREMENTS FOR RC ANALYSES WAS CONDUCTED.

[7] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 83-034 REV 1
 UPDATE ON PRESSURIZER SPRAY VALVE FAILS TO CLOSE.
 EVENT DATE: 071783 REPORT DATE: 052584 NSSS: CE TYPE: PWR
 VENDOR: LIMITORQUE CORP.

(NSIC 190531) ON 7/17/83, WHILE IN MODE 1 AT 90% FULL POWER, PRESSURIZER SPRAY VALVE 2CV-4652 FAILED TO CLOSE COMPLETELY. AT THE TIME OF THE OCCURRENCE, 2CV-4652 WAS BEING USED DURING THE PROCESS OF REACTOR COOLANT SYSTEM (RCS)/PRESSURIZER BORON CONCENTRATION EQUALIZATION IN PREPARATION FOR MODERATOR TEMPERATURE COEFFICIENT (MTC) MEASUREMENT. AS A RESULT, RCS PRESSURE DECREASED TO BELOW THE MINIMUM OF 2225 PSIA PER TECH SPEC 3.2.8. THE MINIMUM PRESSURE OBSERVED WAS 2175 PSIA. PRESSURE WAS RETURNED TO NORMAL WITHIN THE TIME REQUIREMENTS OF THE TECH SPEC 3.2.8 ACTION STATEMENT. THIS OCCURRENCE IS REPORTABLE PER TECH SPEC 6.9.1.9.B. NO SIMILAR OCCURRENCES REGARDING PRESSURIZER LOW PRESSURE EXCURSIONS HAVE BEEN REPORTED. THE CAUSE OF THIS OCCURRENCE COULD NOT BE DETERMINED AT THIS TIME. ALL PRESSURIZER HEATERS WERE ENERGIZED, AND ATTEMPTS WERE MADE TO SHUT 2CV-4652 FROM THE CONTROL ROOM. THE VALVE WAS SUCCESSFULLY CLOSED BY JUMPERING (BYPASSING) THE TORQUE SWITCH AT THE VALVE OPERATOR MOTOR CONTROL CENTER WHILE STROKING THE VALVE CLOSED FROM THE CONTROL ROOM. AN INSPECTION OF THE MOTOR OPERATOR WAS CONDUCTED DURING REFUELING OUTAGE 2R3 AND A DISCREPANCY IN TORQUE SWITCH SETTING WAS FOUND. THE TORQUE SWITCH WAS RESET PROPERLY AND THE VALVE OPERATOR STROKED CORRECTLY. THE VALVE OPERATOR FOR 2CV-4652 IS A TYPE SMB-000 MANUFACTURED BY LIMITORQUE.

[8] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 83-036 REV 1
 UPDATE ON WIND DIRECTION INDICATOR READS OPPOSITE TO NORMAL.
 EVENT DATE: 081983 REPORT DATE: 052584 NSSS: CE TYPE: PWR

(NSIC 190532) ON 8/19/83, WHILE ANO-1 WAS AT 100% FULL POWER AND ANO-2 WAS AT 24% FULL POWER, MAINTENANCE PERSONNEL DISCOVERED THAT THE WIND DIRECTION INDICATION AT THE 40' ELEVATION WAS INDICATING 180 DEGREES FROM ACTUAL WIND DIRECTION. IT IS BELIEVED THAT THE ERROR EXISTED SINCE THE LAST SURVEILLANCE WHICH WAS CONDUCTED ON 7/20/83. THEREFORE, SINCE THE INDICATION WAS EFFECTIVELY INOPERABLE FOR GREATER THAN 7 DAYS, ANO-2 TECH SPEC 3.3.3.4 REQUIRES THAT THIS OCCURRENCE BE REPORTED PER TECH SPEC 6.9.2. THE WIND DIRECTION INDICATION AT 190' LEVEL WAS INDICATING PROPERLY AT THE TIME OF THE OCCURRENCE. DURING MAINTENANCE OF THE 40' WIND DIRECTION EQUIPMENT, THE TRANSMITTER WAS REMOVED FOR REPAIR OF THE MOUNTING BRACKET. WHEN THE TRANSMITTER WAS REPLACED, A MISINTERPRETATION OF THE OUTPUT SIGNAL CAUSED THE TECHNICIAN TO BELIEVE THAT THE TRANSMITTER WAS INSTALLED 180 DEGREES FROM THE CORRECT POSITION. THIS WAS COMPOUNDED BY THE MOUNTING BRACKET BEING INSTALLED 180 DEGREES FROM THE ORIGINAL POSITION. AS A RESULT THE TRANSMITTER WAS REMOVED, ROTATED 180 DEGREES AND REINSTALLED. WHEN THE ERROR WAS DISCOVERED, THE TRANSMITTER WAS REMOVED, ROTATED TO ITS CORRECT POSITION AND REINSTALLED.

[9] ARNOLD DOCKET 50-331 LER 84-020
 STANDBY FILTER UNIT INITIATION BY SPURIOUS SIGNAL.
 EVENT DATE: 061784 REPORT DATE: 071784 NSSS: GE TYPE: BWR
 VENDOR: NUCLEAR MEASUREMENTS CORP.

ACTUATION WAS ASSOCIATED WITH THE RELAY SETTING. AN INCREASE IN THE RELAY SETTING WAS INITIATED AS A TEMPORARY CORRECTIVE ACTION. A STATION MODIFICATION HAS BEEN INITIATED TO REPLACE THE RELAYS WITH AN IMPROVED MODEL AS A PERMANENT CORRECTION.

[14] BEAVER VALLEY 1 DOCKET 50-334 LER 84-006
 INADEQUATE SURVEILLANCE TESTING REQUIREMENTS FOR 12^v DC STATION BATTERIES.
 EVENT DATE: 061884 REPORT DATE: 072084 NSSS: we TYPE: PWR

(NSIC 190738) ON 6/21/84, DURING A REVIEW OF THE 18 MONTH SURVEILLANCE TESTING METHODS USED ON THE 120V DC STATION BATTERIES, IT WAS DETERMINED THAT THE TEST METHODS WERE INADEQUATE. THIS IS NONCONSERVATIVE WITH RESPECT TO TECH SPEC 4.8.2.3.2.D AND REPORTABLE PER 10 CFR 50.73.A.2.I. THE SURVEILLANCE REQUIREMENT STATED THAT THE BATTERIES BE TESTED FOR 2 HRS AT A LOAD EQUIVALENT TO THEIR DESIGN DUTY CYCLES; HOWEVER, IT WAS DETERMINED THAT THE TESTS DID NOT TEST AT ACTUAL OR SIMILATED EMERGENCY LOADS FOR THE DESIGN DUTY CYCLES. THE ONSITE SAFETY COMMITTEE (OSC) AND THE OFFSITE REVIEW COMMITTEE (ORC) THEN CONFERRED TO DETERMINE THE CURRENT OPERABILITY STATUS OF THE STATION BATTERIES. THE BATTERIES WERE DETERMINED TO BE OPERABLE BASED ON THE RESULTS OF PREVIOUS CAPACITY TESTS AND THE ADDED SAFETY FACTOR INCLUDED IN THE ORIGINAL DESIGN OF THE BATTERIES. A PROPOSED TECH SPEC CHANGE TO PERMIT DELAYING THE 18 MO TESTING REQUIREMENTS AND THE APPROPRIATE BATTERY SERVICE TEST TO BE CONDUCTED DURING THE FOURTH REFUELING OUTAGE WAS APPROVED BY THE OSC/ORC. THIS DELAY WAS NECESSARY TO DEVELOP NEW BATTERY DUTY CURVES, AND NEW TEST PROCEDURES, AND TO PROCURE THE REQUIRED BATTERY TESTING EQUIPMENT. THE NRC HAS GRANTED TENTATIVE APPROVAL OF THIS PROPOSED TECH SPEC CHANGE PENDING FURTHER REVIEW.

[15] BIG ROCK POINT DOCKET 50-155 LER 84-002
 POWER LEVEL RESTRICTION DUE TO HIGH OFF-GAS RELEASE RATE.
 EVENT DATE: 051084 REPORT DATE: 061184 NSSS: GE TYPE: BWR
 VENDOR: EXXON NUCLEAR CO., INC.

(NSIC 190533) FOLLOWING A GRADUAL INCREASE IN THE CONDENSER AIR EJECTOR OFF-GAS RELEASE RATE SINCE DEC 1983, PLANT OUTPUT WAS VOLUNTARILY RESTRICTED FOR ALARA CONSIDERATIONS. THE REACTOR CONTROL ROD PATTERN WAS MAINTAINED CONSTANT FROM MAY 10, 1984 TO MAY 30, 1984. PLANT OUTPUT WAS ALLOWED TO SAG FROM 63 MWE G TO 58 MWE G OVER THIS 20-DAY PERIOD WHEN A PLANT FORCED OUTAGE OCCURRED AND THE DECISION WAS MADE TO COMMENCE A REFUELING OUTAGE AT THAT TIME. THE OFF-GAS VARIED FROM 22,000 TO 30,000 UCI/SEC DURING THIS 20 DAY PERIOD. THIS RATE IS ABOUT 5% OF THE TECH SPEC LIMIT FOR SHORT-TERM RELEASE RATES. DURING THE CURRENT REFEULING OUTAGE THE DEFECTIVE FUEL WILL BE IDENTIFIED PRIMARILY BY USE OF THE DRY SIPPING TECHNIQUE TO AID IN FUEL MANAGEMENT FOR THE SUBSEQUENT OPERATING CYCLE. THE FUEL FAILURES WERE REPORTED TO THE NRC INCIDENT RESPONSE CENTER VIA TELEPHONE ON MAY 10, 1984 IN THE BELIEF THAT THE REPORTING PROVISIONS OF 10CFR50.72B(1)(II) APPLIED. AFTER FURTHER EVALUATION, WE HAVE CONCLUDED THAT AN LER IS NOT REQUIRED SINCE THE POWER LEVEL RESTRICTION IS VOLUNTARY AND WE THEREFORE SUBMIT THIS REPORT AS AN INFORMATION REPORT ONLY.

[16] BIG ROCK POINT DOCKET 50-155 LER 84-003
 INFORMATIONAL REPORT - UNMONITORED LIQUID RELEASE TO SOIL.
 EVENT DATE: 053084 REPORT DATE: 062984 NSSS: GE TYPE: BWR

(NSIC 190504) SAMPLES TAKEN OF WATER LEAKAGE INTO THE BELOW GRADE WALL OF THE RADWASTE PUMP ROOM INDICATED PRESENCE OF TRITIUM AND IODINE 131 ON MAY 30, 1984. THE RADIONUCLIDE COMPOSITION CLOSELY MATCHED THE ACTIVITY OF THE MAIN CONDENSATE BUT THE I(131) CONCENTRATION WAS ABOUT .15 MPC WHEREAS THE CONCENTRATION OF I(131) IN THE CONDENSATE SYSTEM AT THE TIME WAS ABOUT 52 MPC. THE PLANT, WHICH HAS BEEN OPERATING AT 58 MWE GROSS WAS SHUT DOWN ON MAY 30, 1984 TO INVESTIGATE

THE LEAKAGE. THE PLANT REMAINS SHUT DOWN AS OF JUNE 28, 1984 FOR A REFUELING OUTAGE. DAILY MONITORING OF OUTSIDE SURFACE DRAINAGE FROM MAY 30, 1984 THROUGH JUNE 25, 1984 INDICATES THAT THE HIGHEST CONCENTRATION OF I(131) WAS FOUND AT THE TURBINE BUILDING SHOP LOADING DOCK DRAIN AT 1930 HOURS ON MAY 30, 1984 AND WAS MEASURED AT 3.0 E-07 MICROCI/ML (1.0 MPC). TO DATE, THE PLANT HAS NOT BEEN ABLE TO DETECT IODINE IN THE DISCHARGE CANAL.

[17] BIG ROCK POINT DOCKET 50-155 LER 84-008
 UPSCALE/DOWNSCALE RPS ACTUATION.
 EVENT DATE: 062784 REPORT DATE: 072784 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190640) ON JUN 27, 1984, WHILE THE REACTOR WAS IN COLD SHUTDOWN (ALL CONTROL RCDS INSERTED) AND WITH CHANNEL NO. 3 NEUTRON MONITOR REMOVED FOR REPAIRS, CHANNEL NO. 2 NEUTRON MONITOR BECAME ERRATIC AND WENT UPSCALE. UPSCALE/DOWNSCALE LOGIC FOR THE REACTOR PROTECTION SYSTEM (RPS) TRIP WAS COMPLETED, RESULTING IN A CHALLENGE TO THE RPS. NO CONTROL ROD DRIVE MOVEMENT OCCURRED.

[18] BROWNS FERRY 1 DOCKET 50-259 LER 82-013 REV 5
 UPDATE ON SETPOINT DRIFT OF SHUTDOWN BOARD DEGRADED VOLTAGE RELAYS.
 EVENT DATE: 020282 REPORT DATE: 062884 NSSS: GE TYPE: BWR
 VENDOR: BROWN BOVERI

(NSIC 190498) DURING SI 4.9.A.4.C CALIBRATION OF THE DEGRADED VOLTAGE RELAYS ON THE 4KV SHUTDOWN BOARDS (COMMON TO UNITS 1 AND 2) THE TRIP SETPOINT OF ALL 12 RELAYS WAS FOUND TO BE BELOW THE MINIMUM TRIP POINT OF 3900V. (TECH SPEC TABLE 4.9.A.4.C.) TECH SPEC 3.9.B.11.B PERMITS OPERATION FOR 10 DAYS WITH DEGRADED VOLTAGE RELAYS INOPERABLE ON A BOARD. LOSS-OF-VOLTAGE RELAYS WERE OPERABLE. (WITHIN SI 4.9.A.4.B SURVEILLANCE SCHEDULE.) SETPOINT DRIFTED DOWN 3 PERCENT IN 6 MONTHS AFTER INSTALLATION. THE GOULD-BROWN-BOVERI TYPE ITE 27/59H RELAYS WERE RECALIBRATED AND RETURNED TO SERVICE. DRIFT WAS CAUSED BY INITIAL AGING/STABILIZATION AND BY VARIATIONS IN AMBIENT TEMPERATURE AND SUPPLY VOLTAGE. REPLACEMENT OF THE RELAYS WITH MORE STABLE BROWN-BOVERI TYPE ITE-27N RELAYS IS IN PROGRESS WITH COMPLETION NOW EXPECTED BY AUGUST 1, 1984.

[19] BROWNS FERRY 1 DOCKET 50-259 LER 83-016 REV 2
 UPDATE ON LOW CONTROL ROOM EMERGENCY VENTILATION SYSTEM FILTER EFFICIENCY.
 EVENT DATE: 030983 REPORT DATE: 071384 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: BROWNS FERRY 2 (BWR)
 BROWNS FERRY 3 (BWR)

(NSIC 190782) DURING NORMAL OPERATION, THE RESULT OF AN OFFSITE ANALYSIS OF CHARCOAL SAMPLE (SI 4.7.E.4) FROM THE CONTROL ROOM EMERGENCY VENTILATION SYSTEM (COMMON TO ALL UNITS) SHOWED A METHYL IODIDE REMOVAL EFFICIENCY LESS THAN THE REQUIRED 90% (TECH SPEC 4.7.E.2). A CHARCOAL SAMPLE FROM THE REDUNDANT FILTER TRAIN HAS ALSO BEEN SENT OFFSITE FOR ANALYSIS. THERE WAS NO SAFETY RELATED USE OF THE SYSTEM DURING THIS EVENT PERIOD. THE CAUSE OF THE REDUCED REMOVAL EFFICIENCY WAS DEGRADATION OF THE STORED CHARCOAL PRIOR TO USE. FOUR NEW FILTER TRAYS WERE INSTALLED AND SYSTEM OPERABILITY VERIFIED. SI 4.7.E.4 REQUIRES THE REPLACEMENT OF ALL FOUR TRAYS WHEN TESTED PER TECH SPEC 4.7.E.2. A PROGRAM TO MONITOR CHARCOAL SHELF LIFE WILL BE IN EFFECT AND THE FIRST SURVEY WILL BE PERFORMED BY JULY 20, 1984.

[20] BROWNS FERRY 1 DOCKET 50-259 LER 83-068 REV 2
 UPDATE ON RHR PUMP MOTOR FAILS.
 EVENT DATE: 121083 REPORT DATE: 052584 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190783) ON 12/10/83, WITH UNIT 1 IN A REFUELING OUTAGE, AN OPERATOR OBSERVED RHR PUMP 1C MOTOR WAS SPARKING AND SMOKING. THE MOTOR WAS SHUT DOWN AND SUBSEQUENTLY RESTARTED. AFTER RESTARTING, THE MOTOR TRIPPED ON OVERCURRENT. WITH RHR LOOP II OUT-OF-SERVICE, ONLY RHR PUMP 1A, LOOP I, WAS OPERABLE. THIS EXCEEDED LIMIT OF LCO, TECH SPEC 3.5.B.9. LIMITS WERE EXCEEDED FOR TWO HOURS. REACTOR VESSEL TEMPERATURE REMAINED WITHIN LIMITS REQUIRED BY TECH SPECS 3.6.A.3 AND .5. GE MODEL NO. 5K6348XC23A, 2000 HP, 3 PHASE MOTOR TRIPPED DUE TO BEARING AND SUBSEQUENT WINDING FAILURE. RHR LOOP II WAS RETURNED TO SERVICE AND PUMP 1C MOTOR REPLACED. THIS IS CONSIDERED A RANDOM FAILURE SINCE OPERATING TIME DOES NOT INDICATE END OF LIFE NOR IS THIS A GENERIC TYPE FAILURE. RECURRENCE CONTROL CONSISTS OF PERIODIC OIL ANALYSES TO DETECT POTENTIAL BEARING FAILURE.

[21] BROWNS FERRY 1 DOCKET 50-259 LER 84-020
 FAILURE TO MEET DESIGN BASIS FOR PARALLELING DIESEL GENERATORS.
 EVENT DATE: 050584 REPORT DATE: 052584 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: BROWNS FERRY 2 (BWR)
 BROWNS FERRY 3 (BWR)

(NSIC 190596) BROWNS FERRY'S FSAR SECTION 8.5 REQUIRES THE ABILITY TO PARALLEL 3 UNITS 1 AND 2 DIESEL GENERATORS WITH 3 UNIT 3 DIESEL GENERATORS FOR LONG-TERM OPERATION AFTER A DESIGN BASIS ACCIDENT. DUE TO A DESIGN ERROR WHEN A MODIFICATION WAS INSTALLED IN 1976, PARALLELING THE UNITS 1 AND 2 DIESEL GENERATORS WITH UNIT 3 IN THE PRESENCE OF AN ACCIDENT SIGNAL WAS NOT POSSIBLE. THIS ERROR WAS FOUND BY TVA'S DESIGN GROUP IN THE APPENDIX R ANALYSIS REVIEW AND REPORTED BY A NONCONFORMANCE REPORT. IMMEDIATE CORRECTIVE ACTION WAS TAKEN BY PLACING ADMINISTRATIVE CONTROLS OVER DEFEATING THE ACCIDENT SIGNAL LOCKOUT FEATURE. A MODIFICATION TO COMPLETE CORRECTIVE ACTION IS IN PROGRESS AND SHOULD BE COMPLETED BY AUG 15, 1984.

[22] BROWNS FERRY 1 DOCKET 50-259 LER 84-025
 INADEQUATE ISOLATION OF BUILDING HEAT SYSTEM BETWEEN REACTOR AND TURBINE BUILDING.
 EVENT DATE: 061584 REPORT DATE: 070384 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: BROWNS FERRY 2 (BWR)
 BROWNS FERRY 3 (BWR)

(NSIC 190597) A REVIEW OF THE BLDG HEAT SYSTEM BY ENGINEERING DESIGN DURING THE INFO. BULLETIN 79-14 INSPECTION DETERMINED THAT THE ISOLATION BETWEEN THE TURBINE AND REACTOR BLDG HEAT SYSTEM LINES WAS INADEQUATE. THE FAILURE TO FOLLOW DESIGN CRITERIA AS SPECIFIED IN BROWNS FERRY NUCLEAR FINAL SAFETY ANALYSIS REPORT AND INADEQUATE DESIGN REVIEW BY THE REVIEWER WAS THE MAIN PROBLEM. A SAFETY EVALUATION OF SECONDARY CONTAINMENT CAPABILITY WAS PERFORMED IMMEDIATELY. AN EVALUATION OF THE CALCULATED INLEAKAGE RATE, BASED ON THE LATEST PERFORMANCE OF THE SURVEILLANCE INSTRUCTION, CONCLUDED THAT A COMPROMISE OF SECONDARY CONTAINMENT DOES NOT EXIST.

[23] BROWNS FERRY 1 DOCKET 50-259 LER 84-026
 HIGH RECIRCULATION PUMP SEAL LEAKAGE AND SUBSEQUENT MANUAL SCRAM.
 EVENT DATE: 062084 REPORT DATE: 071784 NSSS: GE TYPE: BWR
 VENDOR: BYRON JACKSON PUMPS, INC.

(NSIC 190705) UNIDENTIFIED DRYWELL LEAKAGE EXCEEDED TECH SPEC 3.6.C.1.A, 5-GALLONS PER MINUTE REACTOR COOLANT LEAKAGE RATE. AN ORDERLY SHUTDOWN WAS INITIATED AS REQUIRED BY TECH SPEC 3.6.C.3 AND THE UNIT WAS MANUALLY SCRAMMED AT

59% POWER. THE DRYWELL WAS ENTERED AND 'B' RECIRCULATING PUMP UPPER SEAL WAS DISCOVERED TO HAVE FAILED. THE SEAL WAS REPLACED WITH A SPARE SEAL ASSEMBLY AND THE UNIT RETURNED TO SERVICE.

[24] BROWNS FERRY 2 DOCKET 50-260 LER 84-006
 AUTOMATIC SCRAM DUE TO TURBINE TRIP ON A FALSE LOW TURBINE OIL TANK LEVEL.
 EVENT DATE: 061684 REPORT DATE: 071084 NSSS: GE TYPE: BWR

(NSIC 190706) DURING NORMAL OPERATION ON UNIT 2, THE REACTOR SCRAMMED WHEN THE MAIN TURBINE TRIPPED ON A FALSE MAIN TURBINE OIL TANK (MTOT) LOW LEVEL SIGNAL. ALL REDUNDANT SYSTEMS WERE OPERABLE.

[25] BROWNS FERRY 3 DOCKET 50-296 LER 84-004 REV 1
 UPDATE ON RESIDUAL HEAT REMOVAL VALVE STEM BREAKS.
 EVENT DATE: 022884 REPORT DATE: 061584 NSSS: GE TYPE: BWR
 VENDOR: WALWORTH COMPANY

(NSIC 190550) DURING THE UNIT 3 CYCLE 5 REFUELING OUTAGE ON FEB 28, 1984, THE RESIDUAL HEAT REMOVAL (RHR) OUTBOARD LOOP II ISOLATION VALVE STEM WAS FOUND TO BE BROKEN UPON DISASSEMBLY. (THE UNIT WAS REMOVED FROM SERVICE ON SEPT 8, 1983.) THE VALVE (FCV-74-67) IS A 24 INCH GATE VALVE WHICH IS MANUFACTURED BY WALWORTH COMPANY. THE MOST PROBABLE CAUSE FOR THE VALVE STEM TO BREAK WAS DUE TO OVERSTRESS OR EXTREME LOADING CONDITIONS. THE METALLURGICAL ENGINEERS PERFORMED A FAILURE ANALYSIS OF THE STEM BREAKS WHICH INDICATED THE FAILURE WAS DUE TO OVERLOADING. THE STEM WAS BROKEN IN TWO PLACES. METALLURGICAL EXAMINATIONS DID NOT FIND ANY EVIDENCE OF FATIGUE OR CORROSION ATTACK OF THE FRACTURE SURFACES. OPERATION INSTRUCTIONS STATE TO USE THE LOOP NOT PREVIOUSLY USED WHEN GOING INTO SHUTDOWN COOLING. LOOP I WAS USED PER THE SHIFT ENGINEER'S LOG.

[26] BRUNSWICK 1 DOCKET 50-325 LER 81-046 REV 1
 UPDATE ON RHR WATER HAMMER BREAKS SNUBBER SHAFT.
 EVENT DATE: 041481 REPORT DATE: 080384 NSSS: GE TYPE: BWR
 VENDOR: BERGAN & PATTERSON

(NSIC 190778) DURING UNIT POWER OPERATION, THE SNUBBER SHAFT OF HYDRAULIC SNUBBER 1-E11-47SS326 BROKE AS A RESULT OF WATER HAMMER OF THE A RESIDUAL HEAT REMOVAL (RHR) SYSTEM STEAM CONDENSING PIPING, WHICH OCCURRED WHEN THE SYSTEM WAS STARTED TO RECIRCULATE THE SUPPRESSION POOL FOR SAMPLING. THE SNUBBER IS LOCATED DOWNSTREAM OF THE SUBJECT PIPING INLET PRESSURE CONTROL VALVE, 1-E11-F051A. TECH SPECS 3.7.5, 6.9.1.81. A STEAM POCKET IN THE SUBJECT PIPING, RESULTING FROM LEAKAGE PAST THE F051A RESPECTIVE UPSTREAM ISOLATION VALVE, E11-F052A, CAUSED THE WATER HAMMER. 47SS326 WAS REPAIRED, TESTED AND RETURNED TO SERVICE. TO HELP PRECLUDE FUTURE SIMILAR EVENTS, APPROPRIATE MODIFICATIONS INVOLVING THESE VALVES HAVE BEEN INSTALLED ON BOTH UNITS. ADDITIONAL CORRECTIVE ACTIONS REGARDING THIS EVENT ARE PRESENTLY BEING DEVELOPED.

[27] BRUNSWICK 1 DOCKET 50-325 LER 82-116 REV 2
 UPDATE ON RHR ISOLATION VALVE FAILURES.
 EVENT DATE: 102782 REPORT DATE: 043084 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: BRUNSWICK 2 (BWR)

(NSIC 190499) DURING UNIT POWER OPERATION, WHILE INVESTIGATING AN EVENT REPORTED IN LER 1-82-114, IT WAS DISCOVERED THAT RHR SYSTEM DISCHARGE VALVES TO THE PLANT RADWASTE SYSTEM, 1-E11-F040 AND F049, WOULD NOT FULLY CLOSE. SUBSEQUENT TESTING OF THOSE RESPECTIVE VALVES ON UNIT 2 ON NOVEMBER 5, 1982, REVEALED THE SAME CONDITION. IN EACH CASE, BOTH VALVES WERE DECLARED INOPERABLE, DEACTIVATED, AND MANUALLY CLOSED. IMPROPERLY ASSEMBLED SPRING PACKS IN THE VALVES' OPERATORS,

RESULTING FROM A DEFICIENT MAINTENANCE PROCEDURE, CAUSED THE OPERATORS' MOTORS TO TURN OFF AT TOO LOW OF A TORQUE VALUE. NEW SPRING PACKS WERE INSTALLED IN THE F040 AND F049 VALVE OPERATORS, MODEL NOS. SMB-000 AND SMB-00, RESPECTIVELY, AND THE VALVES WERE RETURNED TO SERVICE. ON OCTOBER 26, 1983, APPROPRIATE REVISIONS TO THE SUBJECT MAINTENANCE PROCEDURE WERE INCORPORATED TO HELP FUTURE SIMILAR EVENTS.

[28] BRUNSWICK 1 DOCKET 50-325 LER 83-007 REV 1
UPDATE ON FUEL BUNDLES MOVED INTO POSITIONS NEAR WITHDRAWN RODS.
EVENT DATE: 012383 REPORT DATE: 022883 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CO.

(NSIC 190674) WHILE PERFORMING ROUTINE SURVEILLANCE DURING AN EXTENDED REFUELING OUTAGE, THE CONTROL OPERATOR NOTICED THAT ONE FUEL BUNDLE WAS LOCATED AROUND EACH OF THE FOLLOWING WITHDRAWN CONTROL RODS: 22-15, 34-23, 34-27, AND 26-43. TECH SPECS 3.9.10.2, 6.9.1.9B. A PROCEDURAL INADEQUACY ALLOWED THE 4 FUEL BUNDLES TO BE PLACED IN SEPARATE FUEL CELLS WITH WITHDRAWN CONTROL RODS. THE PROCEDURE DID NOT DEFINE RESPONSIBILITY FOR ASSURING THAT FUEL WAS PLACED IN CELLS WITH INSERTED CONTROL RODS. THE RODS WERE INSERTED AND THE PROCEDURE WAS REVISED TO REQUIRE ALL CONTROL RODS BE INSERTED PRIOR TO FUEL MOVEMENT.

[29] BRUNSWICK 1 DOCKET 50-325 LER 83-023 REV 1
UPDATE ON LOSS OF OFFSITE POWER.
EVENT DATE: 042683 REPORT DATE: 071884 NSSS: GE TYPE: BWR
OTHER UNITS INVOLVED: BRUNSWICK 2 (BWR)
VENDOR: BROWN BOVERI

(NSIC 190785) DURING A UNIT 1 REFUELING OUTAGE, WHILE PERFORMING PERIODIC SWITCHGEAR TRIP TESTING ON PLANT 230 KV BUS 1A, A UNIT 1 LOSS OF OFFSITE POWER OCCURRED WHEN 230 KV BUS 1B WAS INADVERTENTLY TRIPPED. THE FOUR DIESEL GENERATORS AUTO STARTED AND DIESELS 1 AND 2 TIED INTO THEIR RESPECTIVE EMERGENCY BUSES. SOON THEREAFTER, A FIRE WAS REPORTED IN 4160/480 TRANSFORMER BETWEEN EMERGENCY BUS E-2 AND E-6. THE E-6 BUS WAS DEENERGIZED, THE TRANSFORMER ISOLATED, AND THE BUS REENERGIZED BY CROSS-TYING WITH BUS E-5. PERSONNEL PERFORMING THE SWITCHGEAR TRIP TESTING FAILED TO PROPERLY CLEAR BUS 1A FOR TESTING AND TRIPPED BUS 1B BY ACTUATING A SWITCHGEAR TRIP RELAY WHICH IS COMMON IN BOTH BUSES. THE TRIP SIGNAL WAS CLEARED AND OFFSITE POWER WAS RESTORED TO UNIT 1. THE E-6 TRANSFORMER, TYPE V9, SPECIFICATION NO. 21122-301, WAS REPLACED.

[30] BRUNSWICK 1 DOCKET 50-325 LER 84-008
INOPERABILITY OF CONTROL ROOM EMERGENCY FILTRATION TRAINS A AND B.
EVENT DATE: 060684 REPORT DATE: 070584 NSSS: GE TYPE: BWR
OTHER UNITS INVOLVED: BRUNSWICK 2 (BWR)

(NSIC 190617) ON 6/06/84 AT 0225 IT WAS DISCOVERED THAT BOTH CONTROL BUILDING EMERGENCY AIR FILTRATION (CBEAF) SYSTEM TRAINS A AND B WERE INOPERABLE DUE TO A THERMAL OVERLOAD TRIP OF EACH TRAIN'S FAN UNIT MOTOR. WITHIN FIVE MINUTES THE TRIPS WERE RESET, AND BOTH TRAINS WERE STARTED TO VERIFY OPERABILITY AND RETURNED TO NORMAL STANDBY CONFIGURATION. AT THE TIME, UNIT 1 WAS OPERATING AT 100% POWER AND UNIT 2 WAS IN A UNIT REFUEL/MAINTENANCE OUTAGE. INOPERABILITY OF BOTH TRAINS PREVENTS ASSURANCE OF CONTROL ROOM HABITABILITY DURING DESIGN BASIS ACCIDENTS. IT WAS DETERMINED THE INCURRED TRIPS RESULTED FROM ANTICIPATED SUCCESSIVE STARTING AND STOPPING OF THE TRAINS DURING PERIODIC TESTING (PT) OF THE BUILDING FIRE DETECTION INSTRUMENTATION ON 6/05/84 AT APPROXIMATELY 1230 TO 1504. FOLLOWING THE PT, MANUAL START SIGNALS TO BOTH TRAINS WERE INITIATED TO VERIFY THE AUTHENTICITY OF CBEAF SYSTEM TRAIN FANS' INOPERABLE ANNUNCIATIONS. BASED ON CONTROL ROOM INDICATIONS, IT WAS PERCEIVED A PROBLEM EXISTED WITH THE ANNUNCIATORS' LIGHTS AND THAT BOTH CBEAF SYSTEM TRAINS WERE OPERABLE. AS A

RESULT OF THIS EVENT, APPROPRIATE REAL-TIME TRAINING WILL BE CONDUCTED WITH SPECIFIED OPERATIONS PERSONNEL. THE PT AND APPROPRIATE PLANT ANNUNCIATOR PROCEDURES WILL BE REVISED AS REQUIRED TO HELP PRECLUDE FUTURE SIMILAR EVENTS.

[31] BRUNSWICK 1 DOCKET 50-325 LER 84-010
 ACTUATION OF CONTROL BUILDING EMERGENCY AIR FILTRATION TRAIN 2A.
 EVENT DATE: 062584 REPORT DATE: 072084 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: BRUNSWICK 2 (BWR)

(NSIC 190618) ON JUNE 25, 1984, AT 1048, TRAIN A OF THE CONTROL BUILDING EMERGENCY AIR FILTRATION (CBEAF) SYSTEM AUTOMATICALLY STARTED DUE TO A FIRE ALARM IN THE CONTROL BUILDING. THE FIRE ALARM RESULTED FROM A MOMENTARY RELEASE OF FREON TO THE BUILDING ATMOSPHERE WHICH OCCURRED WHEN A FREON-CHARGING RIG, USED FOR ADDING FREON TO THE BUILDING AIR-CONDITIONING UNIT, WAS DISCONNECTED FROM THE UNIT. AT THE TIME, UNIT 1 WAS OPERATING AT 100% POWER AND UNIT 2 WAS IN A REFUEL/MAINTENANCE OUTAGE WITH NO FUEL IN THE REACTOR. WITHIN APPROXIMATELY THREE MINUTES, THE FIRE ALARM WAS RESET AND THE TRAIN WAS SECURED AND RETURNED TO STANDBY. LATER ON JUNE 25, 1984, AT 2214, WITH UNIT 1 AT 100% POWER AND UNIT 2 IN A REFUEL/MAINTENANCE OUTAGE WITH NO FUEL IN THE REACTOR, CBEAF TRAIN A AUTOMATICALLY STARTED DUE TO A CONTROL BUILDING FIRE ALARM CAUSED BY THE FAILURE OF A CAPACITOR IN THE UNIT 2 UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEM INVERTER. WITHIN SIX MINUTES, THE FIRE ALARM WAS RESET AND THE TRAIN RETURNED TO STANDBY. IN EACH CASE THE REDUNDANT CBEAF TRAIN B WAS OPERABLE. ACTUATION OF A CBEAF SYSTEM TRAIN PLACES THE INVOLVED UNIT IN ITS DESIGN MODE OF OPERATION.

[32] BRUNSWICK 1 DOCKET 50-325 LER 84-011
 ACTUATION OF CONTROL BUILDING EMERGENCY AIR FILTRATION TRAIN 2A.
 EVENT DATE: 071184 REPORT DATE: 073184 NSSS: GE TYPE: BWR

(NSIC 190729) ON JULY 11, 1984, AT 1215, TRAIN A OF THE CONTROL BUILDING EMERGENCY AIR FILTRATION (CBEAF) SYSTEM AUTOMATICALLY STARTED DUE TO A SPURIOUS FIRE ALARM IN THE UNIT 1 CONTROL ROOM INSTRUMENT BACK PANELS AREA. AT THE TIME, UNIT 1 WAS OPERATING AT 100% POWER AND UNIT 2 WAS IN A MAINTENANCE/REFUELING OUTAGE. IN THIS CASE, THE REDUNDANT CBEAF SYSTEM TRAIN B WAS OPERABLE AND IN STANDBY. WITHIN APPROXIMATELY TEN MINUTES, THE FIRE ALARM WAS RESET AND THE TRAIN WAS SECURED AND RETURNED TO STANDBY. THE CAUSE OF THE SPURIOUS FIRE ALARM COULD NOT BE DETERMINED. AN INVESTIGATION COULD NOT IDENTIFY ANY COMPONENT/SYSTEM FAILURES OR PERSONNEL INVOLVEMENT WITH THE SPURIOUS ALARM ACTUATION OF THE TRAIN. ACTUATION OF A CBEAF SYSTEM TRAIN PLACES THE INVOLVED UNIT IN ITS DESIGN MODE OF OPERATION.

[33] BRUNSWICK 2 DOCKET 50-324 LER 82-C88 REV 3
 UPDATE ON DEFECTIVE VALVE STEMS.
 EVENT DATE: 080482 REPORT DATE: 052484 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: BRUNSWICK 1 (BWR)
 VENDOR: ANCHOR/DARLING VALVE CO.

(NSIC 190584) WHILE MANUALLY OPENING THE SUPPRESSION POOL SUCTION SUPPLY VALVE TO B PUMP OF B LOOP RHR, 2-E11-F004B, THE VALVE STEM SPUN FREELY BEYOND THE FULL OPEN VALVE POSITION. THE UNIT WAS IN COLD SHUTDOWN AT THE TIME OF THIS DISCOVERY. TECH SPECS 3.5.3.2, 6.9.1.9B. IGSCC OF THE VALVE STEM MATERIAL, RESULTING FROM A HARDNESS FACTOR OF THE MATERIAL IN EXCESS OF THE MANUFACTURER'S MAXIMUM SPECIFICATIONS WHICH IS ATTRIBUTED TO IMPROPER HEAT TREATING DURING MANUFACTURING, HAD ALLOWED A COMPLETE FRACTURE OF THE STEM TO OCCUR APPROX. 6 INCHES FROM THE VALVE GATE. A NEW VALVE STEM WAS INSTALLED AND THE VALVE WAS RETURNED TO SERVICE.

[34] BRUNSWICK 2 DOCKET 50-324 LER 82-121 REV 1
 UPDATE ON TIP CONTAINMENT ISOLATION VALVE INOPERABLE.
 EVENT DATE: 100982 REPORT DATE: 042584 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190574) DURING UNIT POWER OPERATION, THE 'A' TRAVERSE IN-CORE PROBE (TIP) GUIDE TUBE PRIMARY CONTAINMENT ISOLATION (PCI) BALL VALVE WAS RENDERED INOPERABLE WHEN AN ELECTRICAL TRIP OF THE TIP DRIVE MOTOR OCCURRED WHILE THE TIP DETECTOR WAS PARTIALLY INSERTED INTO THE CORE. AT THE TIME, THE 'A' TIP MANUAL ISOLATION SHEAR VALVE WAS OPERABLE. WITHIN 2 HRS AND 10 MINS, THE TIP DETECTOR WAS MANUALLY RETRACTED TO REESTABLISH OPERABILITY OF THE 'A' TIP PCI BALL VALVE. TECH SPECS 3.6.3, 6.9.1.9B. THE TIP DRIVE MOTOR THERMALS TRIPPED DUE TO RESTRICTION OF THE TIP DETECTOR WITHIN ITS DRIVE TUBING, RESULTING FROM DEFECTIVE TUBING. THE SUBJECT DRIVE TUBING WAS REPLACED AND THE 'A' TIP DETECTOR WAS RETURNED TO SERVICE. NO REASON COULD BE DETERMINED FOR THE DEFECTIVE TIP TUBING. NO FURTHER ACTION IS PLANNED REGARDING THIS EVENT.

[35] BRUNSWICK 2 DOCKET 50-324 LER 83-019 REV 2
 UPDATE ON INADEQUATE SUPPORT OF INSTRUMENT AIR TUBING TO SRV/ADS VALVE.
 EVENT DATE: 021083 REPORT DATE: 071284 NSSS: GE TYPE: BWR

(NSIC 190500) DURING A SHORT-TERM UNIT MAINTENANCE OUTAGE, WHILE PERFORMING A ROUTINE DRYWELL INSPECTION, AN NRC RESIDENT INSPECTOR OBSERVED THAT INSTRUMENT AIR TUBING TO SRV/ADS VALVES' ACCUMULATORS APPEARED TO BE INADEQUATELY SUPPORTED. AN INSPECTION AND ENGINEERING ASSESSMENT DETERMINED THE TUBING WAS NOT ADEQUATELY SUPPORTED IN ACCORDANCE WITH PLANT DESIGN REQUIREMENTS. DURING THE INSTALLATION OF AN SRV MODIFICATION, THE SUBJECT TUBING HAD BEEN REROUTED WITHOUT ADEQUATE PROCEDURAL CONTROLS TO ENSURE SUPPORT DESIGN COMPLIANCE. SUPPORTS TO ENSURE STRUCTURAL INTEGRITY OF THE TUBING WERE INSTALLED PRIOR TO UNIT STARTUP AS PART OF A SHORT-TERM CORRECTION OF THE PROBLEM WITH A LONG-TERM CORRECTION TO BE PERFORMED DURING A FUTURE UNIT OUTAGE.

[36] BRUNSWICK 2 DOCKET 50-324 LER 83-066 REV 1
 UPDATE ON RWCU SYSTEM FLOW INDICATOR READS HIGH.
 EVENT DATE: 072083 REPORT DATE: 062184 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190673) ROUTINE SURVEILLANCE DURING UNIT POWER OPERATION REVEALED THAT RWCU SYSTEM DIFFERENTIAL FLOW INDICATOR, 2-G31-615, WAS INDICATING HIGH. R615 PROVIDES AN INDICATOR FOR ONE OF TWO PARALLEL OUTPUTS FROM RWCU SYSTEM SUMMER CIRCUIT, 2-G31-K604, WHICH RECEIVES ITS INPUT FROM THREE RWCU SYSTEM FLOW TRANSMITTERS, 2-G31-FT-N012, N036, AND N041. TECH SPECS TABLE 3.3.2-1, ITEM 3A, 6.9.1.9B. THE DESIGN OF THE SENSING LINES TO FT-N041 ALLOWED AIR TO BECOME ENTRAPPED IN HIGH POINTS OF THE LINES AND CAUSE A CALIBRATION SHIFT IN THE TRANSMITTER. THE SENSING LINES TO FT-N041 WERE VENTED, AND THE TRANSMITTER, MODEL 555, WAS RETURNED TO SERVICE. PLANT ENGINEERING HAS BEEN REQUESTED TO EVALUATE MODIFYING THE SENSING LINES TO ALL THREE TRANSMITTERS TO ELIMINATE THE AIR ENTRAPMENT PROBLEM.

[37] BRUNSWICK 2 DOCKET 50-324 LER 83-075 REV 1
 UPDATE ON DRYWELL DRAIN FLOW INTEGRATOR FAILS.
 EVENT DATE: 081383 REPORT DATE: 071784 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190784) ROUTINE SURVEILLANCE DURING UNIT POWER OPERATION REVEALED THAT DRYWELL FLOOR DRAIN (DWF) FLOW INTEGRATOR, 2-G16-FQ-K601, WAS INDICATING DWF SUMP FLOW WITH NO DWF PUMPS RUNNING. THE DWF INTEGRATOR WAS THEN DECLARED INOPERABLE PER TECH SPECS. TECH SPECS 3.4.3.1, 6.9.1.9B. A FAILED SOLDER JOINT

ON THE OUTPUT CONNECTOR OF THE INTEGRATOR SQUARE ROOT CONVERTER, FY-K601, CAUSED THE FQ-K601 TO ERRONEOUSLY INDICATE. THE SOLDER JOINT WAS REPAIRED AND FQ-K601, MODEL NO. 561, WAS CALIBRATED AND RETURNED TO SERVICE. DUE TO SIMILAR PAST EVENTS, THIS INSTRUMENT IS BEING REPLACED IN ACCORDANCE WITH PLANT MODIFICATION 79-163, DURING THE ONGOING 1984 UNIT 2 REFUEL/MAINTENANCE OUTAGE.

[38] CALLAWAY 1 DOCKET 50-483 LER 84-001
 TECHNICAL SPECIFICATION VIOLATION - MISSED HOURLY FIRE WATCH.
 EVENT DATE: 061284 REPORT DATE: 070684 NSSS: WE TYPE: PWR

(NSIC 190696) ON 6/12/84, FROM 1600 TO 1700 CDT, PRIOR TO INITIAL FUEL LOADING, HOURLY FIRE WATCH PATROLS FOR FOUR ROOMS IN THE CONTROL BUILDING WERE MISSED IN VIOLATION OF TECH SPEC ACTION STATEMENT 3.7.11.A. THE MISSED ROOMS RESULTED IN FIRE BARRIERS WITH INOPERABLE PENETRATION SEALS NOT BEING PATROLLED DURING THE 1700 HR PATROL. THE CAUSE OF THIS WAS DOOR LOCKS BEING CHANGED TO COINCIDE WITH RECEIPT OF THE OPERATING LICENSE AND NEW KEYS NOT BEING MADE PROMPTLY AVAILABLE TO FIRE WATCH PERSONNEL. APPROPRIATE KEYS WERE ISSUED AND PATROLS TO AT LEAST ONE SIDE OF THE INOPERABLE SEALS WERE RE-ESTABLISHED DURING THE 1800 HR PATROL. PATROLS TO BOTH SIDES OF THE INOPERABLE SEALS WERE REESTABLISHED DURING THE 1900 HR PATROL. THE REQUIRED ROOM FIRE DETECTION AND SUPPRESSION SYSTEMS WERE OPERABLE.

[39] CALLAWAY 1 DOCKET 50-483 LER 84-003
 ESF ACTUATION - CONTAINMENT PURGE AND CONTROL ROOM VENTILATION ISOLATION.
 EVENT DATE: 061584 REPORT DATE: 071684 NSSS: WE TYPE: PWR

(NSIC 190637) THIS REPORT CONTAINS TWO RELATED EVENTS. ON 6/15/84 AT 0027 CDT, DURING INITIAL FUEL LOADING, CONTAINMENT PURGE ISOLATION AND CONTROL ROOM VENTILATION ISOLATION SIGNALS (CPIS AND CRVIS) WERE ACTUATED BY A SPURIOUS CONTAINMENT RADIATION ALARM FROM RADIATION ELEMENT GT-RE-22. INVESTIGATION REVEALED 480V BREAKER NG03CAP4 WHICH FEEDS GT-RT-22 (THE TRANSMITTER FOR GT-RE-22) WAS IN THE TRIPPED POSITION. IT IS BELIEVED THAT CONSTRUCTION PERSONNEL PERFORMING FINAL CLEANING ON THE NG03C MOTOR CONTROL CENTER CABINET INADVERTENTLY CAUSED THE BREAKER TO TRIP, INITIATING THE SPURIOUS ISOLATION SIGNAL. THE BREAKER WAS RESET AND THE SYSTEM LINE-UP WAS RESTORED TO NORMAL BY 0157. AS A PRECAUTION, A WORK REQUEST WAS INITIATED TO ENSURE THE BREAKER WAS FUNCTIONING PROPERLY. ON 7/12/84 AT 2058 CDT, WHILE IMPLEMENTING WORKMAN'S PROTECTION FOR THIS WORK REQUEST, THE BREAKER WAS OPENED WITHOUT PLACING THE CHANNEL IN BYPASS RESULTING IN ANOTHER CPIS AND CRVIS. THE BREAKER WAS RECLOSED AND SYSTEM LINE-UP RESTORED. NO RADIATION ABOVE NORMAL BACKGROUND WAS PRESENT.

[40] CALLAWAY 1 DOCKET 50-483 LER 84-004
 RADIATION MONITOR FAILURE CAUSES ESFAS.
 EVENT DATE: 061784 REPORT DATE: 071684 NSSS: WE TYPE: PWR

(NSIC 190697) AT 1418 CDT ON 6/17/84 AN ENGINEERED SAFETY FEATURE ACTUATION SIGNAL (ESFAS) OCCURRED INITIATING A CONTAINMENT PURGE ISOLATION SIGNAL (CPIS) AND A CONTROL ROOM VENTILATION ISOLATION SIGNAL (CRVIS). THE PLANT WAS IN MODE 6 PERFORMING INITIAL FUEL LOADING AT THE TIME OF THE EVENT. PRIOR TO THIS EVENT, RADIATION MONITOR GT-RE-33 HAD BEEN GIVING LOSS OF FLOW HIGH PRESSURE ALARMS. TECHNICIANS WERE TROUBLESHOOTING WITHOUT HAVING PLACED THE ESFAS CHANNEL IN BYPASS. THE CHANNEL WAS NOT BYPASSED BECAUSE THE PROBLEM WITH THE MONITOR WAS BELIEVED TO BE A FAULTY VACUUM TRANSDUCER WHICH WOULD NOT CAUSE AN ESFAS SIGNAL. DURING THE COURSE OF THE WORK AN ERRONEOUS HIGH RADIATION SIGNAL WAS RECEIVED. IT IS BELIEVED THAT A VOLTAGE SPIKE CAUSED THE ERRONEOUS SIGNAL WHICH IN TURN CAUSED THE ESFAS ACTUATION. SPURIOUS ALARMS HAVE BEEN RECEIVED ON SIMILAR MONITORS AND ARE THE SUBJECT OF A CONTINUING INVESTIGATION TO FIND THE CAUSE. THIS INVESTIGATION MAY BE A LONG-TERM EFFORT AND THE RESULTS WILL BE REPORTED AS

A SUPPLEMENT TO THIS REPORT WHEN COMPLETE OR BY 1/17/85. THE OPERATORS PESET THE CONTAINMENT PURGE AND CONTROL ROOM VENTILATION SYSTEMS PER PLANT OPERATING PROCEDURES AND THE ESFAS CHANNEL WAS PLACED IN BYPASS UNTIL THE VACUUM TRANSDUCER WAS REPLACED. THE RADIATION MONITOR WAS FUNCTIONALLY TESTED SATISFACTORILY ON 6/22/84.

[41] CALLAWAY 1 DOCKET 50-483 LER 84-007
LOSS OF SAMPLE FLOW FOR UNIT VENT WIDE RANGE GAS MONITOR.
EVENT DATE: 061884 REPORT DATE: 071884 NSSS: WE TYPE: PWR

(NSIC 190698) ON 6/18/84 THE SAMPLE PUMP FOR THE UNIT VENT WIDE RANGE GAS MONITOR (WRGM) WAS TURNED OFF DUE TO OPERATOR ERROR, THEREFORE CAUSING THE UNIT VENT WRGM TO ALARM ON LOW FLOW. THE LOSS OF SAMPLE FLOW PUT TECH SPEC 3.3.10 ACTION (B) INTO EFFECT REQUIRING CONTINUOUS AUXILIARY SAMPLING OF IODINE AND PARTICULATE. DUE TO THE FACT THAT CONTINUOUS AUXILIARY SAMPLING WAS NOT INITIATED, THIS EVENT IS REPORTED PURSUANT TO 10 CFR 50.73(A)(2)(I). UPON DISCOVERY, THE SAMPLE PUMP WAS STARTED REINITIALIZING SAMPLE FLOW FROM THE UNIT VENT WRGM. DUE TO THE PLANT OPERATING CONDITION, THIS EVENT HAD NO EFFECT ON POWER OPERATIONS.

[42] CALLAWAY 1 DOCKET 50-483 LER 84-019
INADVERTENT ENGINEERED SAFETY FEATURES ACTUATION.
EVENT DATE: 071984 REPORT DATE: 073084 NSSS: WE TYPE: PWR

(NSIC 190760) ON 7/19/84 AT 0912 CDT, A FUEL BLDG VENTILATION ISOLATION SIGNAL (FBVIS) WAS ACTUATED BY A FUEL BLDG RADIATION MONITOR ALARM. THE FBVIS IN TURN INITIATED A CONTROL ROOM VENTILATION ISOLATION SIGNAL (CRVIS) AS DESIGNED. IMMEDIATE INVESTIGATION REVEALED THAT THE MONITOR WAS NOT POWERED AND ITS FEEDER BREAKER AT THE MCC DISTRIBUTION PANEL HAD BEEN ACCIDENTALLY OPENED BY CONSTRUCTION ELECTRICIANS PERFORMING DESIGN MODIFICATIONS. THE RADIATION MONITOR WAS RESTORED TO NORMAL AND THE SYSTEMS RESET PER PLANT OPERATING PROCEDURES.

[43] CALVERT CLIFFS 1 DOCKET 50-317 LER 84-005 REV 1
UPDATE ON SALTWATER SYSTEM GRAPHITIC CORROSION.
EVENT DATE: 050384 REPORT DATE: 070384 NSSS: CE TYPE: PWR
OTHER UNITS INVOLVED: CALVERT CLIFFS 2 (PWR)
VENDOR: FAIRBANKS MORSE
FOSTER WHEELER
STRUTHERS WELLS CORP.

(NSIC 190727) ON 5/2/84, DURING UNIT 2 REFUELING OUTAGE A THROUGH WALL HOLE OCCURRED DURING REMOVAL OF THE GRAPHITE LAYER ON ONE #22 COMPONENT COOLING HEAT EXCHANGER (CCHX) CHANNEL HEAD. THE GRAPHITE LAYER WAS BEING REMOVED IN PREPARATION FOR COAL TAR EPOXY APPLICATION. ON 5/3/84, A SECOND HOLE WAS CREATED DURING GRAPHITE REMOVAL, PROMPTING NOTIFICATION TO THE NUCLEAR REGULATORY COMMISSION. A VISUAL EXAMINATION WAS SUBSEQUENTLY CONDUCTED ON THE OPERATING #11, #12, AND #21 (CCHX) AND SERVICE WATER HEAT EXCHANGER (SRW HX) CHANNEL HEADS. THE #11 AND #12 CCHX OUTLET CHANNEL HEADS HAD THREE AREAS WITH APPARENT THROUGH WALL WEEPAGE. ON 5/6/84, UNIT 1 SHUTDOWN AND ALL UNIT 1 AND UNIT 2 CCHX AND SRW HX WERE OPENED AS CONDITIONS PERMITTED. DUE TO THE SIZE, LOCATION, AND NUMBER OF BELOW MINIMUM WALL AREAS FOUND ON THE CHANNEL HEADS, SEVERAL REPAIRS WERE PURSUED. ENCAPSULATIONS WERE INSTALLED ON #12 AND #22 CCHX CHANNEL HEADS, WHILE NEW CHANNEL HEADS WERE INSTALLED ON #11 AND #21 CCHX. BOLTED PLATE PATCHES WERE INSTALLED ON #12 AND #22 SRW HX TO CORRECT THE DEFICIENCIES. NUMBERS 11 AND 21 SRW HX DID NOT NEED ANY REPAIRS. HOWEVER, ALL CCHX AND SRW HX CHANNEL HEADS WERE COATED WITH COAL TAR EPOXY TO PREVENT FUTURE CORROSION. NEW CHANNEL HEADS FOR ALL CCHX AND SRW HX WILL BE INSTALLED DURING THE NEXT OUTAGE OF SUFFICIENT DURATION. AN EXPANDED SURVEILLANCE PROGRAM FOR CAST IRON COMPONENTS IN THE SALTWATER SYSTEM IS BEING DEVELOPED.

[44] CALVERT CLIFFS 1 DOCKET 50-317 LER 84-006
 FAILURE TO MEET LIMITING CONDITION FOR OPERATION PRIOR TO MODE CHANGE.
 EVENT DATE: 053184 REPORT DATE: 062784 NSSS: CE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190555) WITH THE PLANT IN MODE 2, POWER WAS BEING HELD AT LESS THAN 5% WHILE SG CHEMISTRY CONDITIONS WERE IMPROVED. THE CONTROL ROOM OPERATOR HAD ESTABLISHED CHANNEL A NARROW RANGE POWER INDICATION ON A TREND RECORDER, AND WAS USING THE CHANNEL TO CONTROL POWER UNAWARE THAT THIS CHANNEL WAS INDICATING HALF OF ACTUAL POWER. AS POWER WAS ALLOWED TO INCREASE TOWARD 5% (AS READ ON CHANNEL A) AN AXIAL POWER DISTRIBUTION (APD) PRETRIP ALARM OCCURRED ON CHANNEL A OF THE REACTOR PROTECTION SYSTEM (JD). A COMPARISON WITH CHANNELS B, C, AND D, WHICH WERE READING BETWEEN 6 AND 7%, SUBSTANTIATED THE ALARM AND LED TO THE SUBSEQUENT IDENTIFICATION OF A DISCONNECTED SIGNAL LEAD FROM CHANNEL A UPPER DETECTOR. AS POWER INDICATED 7% ON THE HIGHEST CHANNEL, MODE 1 WAS DECLARED. BECAUSE THE CONTAINMENT SUMP VALVES HAD BEEN OPENED IN MODE 2, THE CONTAINMENT SUMP LEVEL ALARM SYSTEM WAS INOPERABLE (TECH SPEC 3.4.6.1) WHEN THE MODE CHANGE OCCURRED. CONSEQUENTLY, THE MODE 1 LIMITING CONDITIONS FOR OPERATION WERE NOT MET AND A VIOLATION OF TECH SPEC 3.0.4 RESULTED. PROCEDURE CHANGES AND A REVIEW OF THE EVENT BY LICENSED OPERATORS WILL BE ACCOMPLISHED TO PREVENT THE RECURRENCE OF A SIMILAR EVENT.

[45] CALVERT CLIFFS 2 DOCKET 50-318 LER 83-045 REV 1
 UPDATE ON DISCHARGE DAMPERS FAIL TO OPEN.
 EVENT DATE: 090683 REPORT DATE: 062284 NSSS: CE TYPE: PWR
 VENDOR: JOHNSON SERVICE CO.

(NSIC 190583) AT 0605 DURING NORMAL OPERATIONS, THE DISCHARGE DAMPERS TO BOTH PENETRATION ROOM EXHAUST FANS FAILED TO OPEN DURING SURVEILLANCE TESTING. THE DAMPERS WERE DECLARED INOPERABLE (TECH SPEC 3.6.6.1). TROUBLESHOOTING INDICATED THE FAILURE OF A PRESSURE CONTROLLER HAD CAUSED AN AIR SWITCHING VALVE TO ISOLATE THE NORMAL INSTRUMENT AIR SUPPLY TO THE DAMPERS ALLOWING BACKUP ACCUMULATOR PRESSURE TO BLEED-DOWN. SYSTEM OPERABILITY WAS RESTORED WITHIN 1 HR. SIMILAR EVENTS: NONE. THE PRESSURE CONTROLLER (PC) (JOHNSON SERVICE COMPANY, MODEL D-8000-5) FAILED, ISOLATING INSTRUMENT AIR TO THE DAMPER ACTUATORS. THE PC WAS REPLACED. A FACILITY CHANGE HAS BEEN INCORPORATED THAT ESTABLISHES INDEPENDENT CONTROLS AND ACCUMULATORS FOR THE DAMPER ACTUATORS. NO FURTHER ACTIONS NECESSARY.

[46] CONNECTICUT YANKEE DOCKET 50-213 LER 83-003 REV 2
 UPDATE ON AUXILIARY FEED PUMP LOW FLOW.
 EVENT DATE: 012283 REPORT DATE: 061984 NSSS: WE TYPE: PWR
 VENDOR: WORTHINGTON CORP.

(NSIC 190578) WHILE PERFORMING THE SURVEILLANCE TEST OF AUXILIARY FEED PUMP FLOW CAPACITY, WHICH IS CONDUCTED DURING EACH REFUELING PERIOD, THE FLOW FROM THE 1A PUMP WAS MEASURED TO BE 381 GALLONS PER MINUTE. THE ACCEPTANCE CRITERION IS 450 GALLONS PER MINUTE. RATED RPM WAS NOT REACHED. THIS PUMP IS TURBINE DRIVEN. THE OTHER TURBINE DRIVEN PUMP (1B) RAN SATISFACTORILY DURING THE SURVEILLANCE TEST. THIS IS THE FINAL REPORT. AN INTERIM REPORT WAS SUBMITTED ON FEBRUARY 15, 1983. THE RELIEF VALVE ON THE STEAM SUPPLY TO THE TURBINE WAS OBSERVED TO LIFT PREMATURELY DURING THE TEST. DISASSEMBLY OF THE PUMP REVEALED ONLY MINOR WEAR, INDICATING THAT THE FAILURE TO REACH ACCEPTABLE PUMP FLOW AND RPM WAS DUE TO A REDUCTION IN STEAM SUPPLY TO THE TURBINE. THE RELIEF VALVE WAS REPLACED DUE TO WEAR INDICATIONS, ADJUSTED TO THE APPROPRIATE SETPOINT AND TESTED. THE PUMP MET THE ACCEPTANCE CRITERIA SATISFACTORILY WHEN THE SURVEILLANCE TEST WAS RUN ON MARCH 13, 1983, NEAR THE END OF THE REFUELING OUTAGE.

[47] CONNECTICUT YANKEE DOCKET 50-213 LER 84-004 REV 1
 UPDATE ON INOPERABLE FIRE BARRIER PENETRATION SEAL.
 EVENT DATE: 041384 REPORT DATE: 061584 NSSS: WE TYPE: PWR

(NSIC 190589) A PENETRATION (PEN) FIRE BARRIER WAS FOUND INOPERABLE, WHICH VIOLATES TECH SPECS SECTION 3.22.F. THE CONDITION WAS RECTIFIED IN ACCORDANCE WITH TECH SPEC 3.22.F.2. THIS INCIDENT IS REPORTABLE UNDER 10CFR50.73(A)(2)(I). THE INOPERABLE CONDITION IS BELIEVED TO HAVE EXISTED FOR A PERIOD OF TIME GREATER THAN THAT ALLOWED BY TECH SPEC 3.22.F.

[48] CONNECTICUT YANKEE DOCKET 50-213 LER 84-006
 FIRE DOOR FOUND INOPERABLE.
 EVENT DATE: 061184 REPORT DATE: 070684 NSSS: WE TYPE: PWR

(NSIC 190536) WITH THE PLANT OPERATING AT 92% POWER LEVEL (COASTDOWN OPERATION), A FIRE DOOR SEPARATING A SAFETY RELATED FROM A NON-SAFETY AREA, WAS DISCOVERED WITH AN INOPERABLE LATCHING MECHANISM. THE DOOR WAS IMMEDIATELY REPAIRED AND RETURNED TO SERVICE. SINCE IT IS BELIEVED THAT THIS CONDITION HAD EXISTED FOR A PERIOD OF TIME GREATER THAN THAT ALLOWED BY TECH SPECS 3.22-F, THIS INCIDENT IS REPORTABLE UNDER 10CFR50.73(A)(2)(I).

[49] CONNECTICUT YANKEE DOCKET 50-213 LER 84-007
 INOPERABLE FIRE SEALS.
 EVENT DATE: 061284 REPORT DATE: 070684 NSSS: WE TYPE: PWR

(NSIC 190537) WITH THE PLANT OPERATING AT 92 PERCENT POWER LEVEL (COASTDOWN OPERATION), THE EIGHTEEN MONTH FIRE BARRIER PENETRATION SEAL INSPECTION SURVEILLANCE WAS PERFORMED PER TECH SPEC SECTION 3.22.F. A NUMBER OF INOPERABLE PENETRATION SEALS WERE DISCOVERED BY THE CONTRACTOR PERSONNEL PERFORMING THE SURVEILLANCE. THE INOPERABLE SEALS WERE IMMEDIATELY TEMPORARILY SEALED. PERMANENT REPAIRS ARE CURRENTLY PLANNED TO BE ACCOMPLISHED IN AUGUST. SINCE IT IS BELIEVED THAT THE INOPERABLE SEALS WERE IN THIS NONCONFORMING CONDITION FOR A PERIOD OF TIME GREATER THAN THAT ALLOWED BY TECH SPECS, THIS INCIDENT IS REPORTABLE UNDER 10CFR50.73(A)(2)(I).

[50] COOK 1 DOCKET 50-315 LER 83-055 REV 2
 UPDATE ON AUX FEED PUMP REMOVED FROM SERVICE.
 EVENT DATE: 052983 REPORT DATE: 052984 NSSS: WE TYPE: PWR
 VENDOR: MERCOID CORP.

(NSIC 190524) DURING UNIT STARTUP, THE WEST MOTOR DRIVEN AUXILIARY FEED PUMP (MDAPP) WAS REMOVED FROM SERVICE TO REPAIR LOW SUCTION PRESSURE SWITCHES THAT HAD FAILED. THIS EVENT WAS NONCONSERVATIVE WITH RESPECT TO TECH SPEC 3.7.1.2.A. THE ACTION REQUIREMENTS WERE MET. THIS IS A FIRST OCCURRENCE OF THIS TYPE. INVESTIGATION WAS UNABLE TO CONFIRM WHY THE SUCTION PRESSURE SWITCHES (CPS-245B AND CPS-245C) TRIPPED. TROUBLESHOOTING REVEALED THAT THE RESET VALUES WERE OUT OF SPECIFICATION HIGH, CAUSING THE PUMP TO STAY TRIPPED. THE SWITCHES MANUFACTURED BY MERCOID CORPORATION WERE UNABLE TO BE RECALIBRATED SATISFACTORILY AND WERE REPLACED.

[51] COOK 1 DOCKET 50-315 LER 84-009
 INDICATED VIOLATION OF POWER PEAKING LIMIT.
 EVENT DATE: 032184 REPORT DATE: 070984 NSSS: WE TYPE: PWR

(NSIC 190554) ON 3-21-84, AT 1400 HRS, AND IN MODE 1 AT 99% RATED THERMAL POWER (RTP), A FLUX MAP WAS TAKEN WHICH INDICATED THAT TECH SPEC SURVEILLANCE REQUIREMENT 4.2.2.2.C FOR PMQ(Z) WAS EXCEEDED. REACTOR POWER WAS SUBSEQUENTLY

REDUCED TO 96% RTP. THIS CIRCUMSTANCE OCCURRED DUE TO SELF-IMPOSED CONSERVATISMS RESULTING IN A DISCRETE DROP IN THE ALLOWABLE POWER LEVEL WHEN ROD CLUSTER CONTROL ASSEMBLY BANK D IS INSERTED INTO THE CORE AT OR BEYOND THE 217 STEP POSITION. FURTHER REVIEW SHOWED THAT THE SURVEILLANCE REQUIREMENT WAS NOT EXCEEDED. THIS DID NOT CONSTITUTE A CONDITION OUTSIDE OF UNIT 1 CYCLE 8 SAFETY ANALYSIS. IN THE INTEREST OF ADDRESSING THIS EVENT, THIS VOLUNTARY LER IS BEING SUBMITTED.

[52] COOK 1 DOCKET 50-315 LER 84-008
 REACTOR TRIP AND SAFETY INJECTION OCCURS.
 EVENT DATE: 061784 REPORT DATE: 071884 NSSS: WE TYPE: PWR

(NSIC 190612) ON JUN 17, 1984, AT 2034 HRS, WHILE IN MODE 1 AND OPERATING AT 68% POWER, A REACTOR TRIP AND SAFETY INJECTION OCCURRED FROM THE LOSS OF C.R.I.D. (CONTROL ROOM INSTRUMENT DISTRIBUTION) IV INVERTER. THE REACTOR TRIP OCCURRED DUE TO INDICATION OF LOW RCS FLOW WITH REACTOR POWER GREATER THAN THE P-8 SETPOINT. THE SAFETY INJECTION OCCURRED DUE TO AN INDICATION OF LOW STEAMLINE PRESSURE CONCURRENT WITH HIGH STEAM FLOW CAUSED BY THE OPERATION OF THE STEAM DUMPS. THE CAUSE OF THE C.R.I.D. FAILURE WAS DETERMINED TO BE A SHORTED C-2 CAPACITOR ON THE SHORTING CIRCUIT BOARD. THIS EVENT AND THE PREVIOUS C-2 CAPACITOR FAILURE ARE THE RESULT OF HIGH AMBIENT TEMPERATURES. A DESIGN CHANGE HAS BEEN INSTALLED WHICH REPLACED THE C-2 CAPACITORS IN ALL FOUR INVERTERS WITH CAPACITORS HAVING A HIGHER TEMPERATURE RATING. AIR CONDITIONING WAS ALSO ADDED SO THAT COOL AIR IS DIRECTED INTO THE INVERTER ENCLOSURES.

[53] COOK 1 DOCKET 50-315 LER 84-010
 REACTOR TRIP AND SAFETY INJECTION DUE TO INVERTER FAILURE.
 EVENT DATE: 061784 REPORT DATE: 071684 NSSS: WE TYPE: PWR
 VENDOR: SPRAGUE ELEC CO

(NSIC 190670) ON JUN 17, 1984, AT 2034 HRS, WHILE IN MODE 1 AND OPERATING AT 68% POWER, A REACTOR TRIP AND SAFETY INJECTION OCCURRED FROM THE LOSS OF C.R.I.D. (CONTROL ROOM INSTRUMENT DISTRIBUTION) IV INVERTER. THE REACTOR TRIP OCCURRED DUE TO INDICATION OF LOW RCS FLOW WITH REACTOR POWER GREATER THAN THE P-8 SETPOINT. THE SAFETY INJECTION OCCURRED DUE TO AN INDICATION OF LOW STEAMLINE PRESSURE CONCURRENT WITH HIGH STEAM FLOW CAUSED BY THE OPERATION OF THE STEAM DUMPS. THE CAUSE OF THE C.R.I.D. FAILURE WAS DETERMINED TO BE A SHORTED C-2 CAPACITOR ON THE SHORTING CIRCUIT BOARD. THIS EVENT AND THE PREVIOUS C-2 CAPACITOR FAILURE ARE THE RESULT OF HIGH AMBIENT TEMPERATURES. A DESIGN CHANGE HAS BEEN INSTALLED WHICH REPLACED THE C-2 CAPACITORS IN ALL 4 INVERTERS WITH CAPACITORS HAVING A HIGHER TEMPERATURE RATING. AIR CONDITIONING WAS ALSO ADDED SO THAT COOL AIR IS DIRECTED INTO THE INVERTER ENCLOSURES.

[54] COOK 1 DOCKET 50-315 LER 84-012
 CONTAINMENT VENTILATION ISOLATION OCCURS.
 EVENT DATE: 062384 REPORT DATE: 072384 NSSS: WE TYPE: PWR

(NSIC 190613) WITH THE UNIT AT 56% POWER WHILE PERFORMING A CONTAINMENT PRESSURE RELIEF (VENTING), AN AUTOMATIC ACTUATION OF TRAIN 'A' CONTAINMENT ISOLATION SYSTEM OCCURRED. THIS ESF SYSTEM ACTUATION WAS THE RESULT OF A CONTAINMENT AIR PARTICULATE RADIATION MONITORING CHANNEL (ERS-1301) MOMENTARILY EXCEEDING ITS HIGH ALARM SETPOINT (4.94E-01 MICRO CI). THE REASON FOR THE ALARM SETPOINT BEING REACHED HAS BEEN ATTRIBUTED TO THE NORMAL INCREASES IN CONTAINMENT RADIATION LEVELS ASSOCIATED WITH POWER ASCENSION. ALL SYSTEM COMPONENTS FUNCTIONED AS DESIGNED. PROCEDURAL CHANGES HAVE BEEN MADE IN AN EFFORT TO PRECLUDE RECURRENCE.

[55] COOK 2 DOCKET 50-316 LER 84-003 REV 1
UPDATE ON ACTUATION OF AN ENGINEERED SAFETY FEATURE.
EVENT DATE: 031184 REPORT DATE: 071684 NSSS: WE TYPE: PWR
VENDOR: EBERLINE INSTRUMENT CORP.

(NSIC 190671) ON MAR 11, 1984 AT 1149 HRS, WITH THE REACTOR COOLANT SYSTEM IN MODE 5, THE UPPER CONTAINMENT AREA RADIATION MONITOR, VRS-2201 (IL), RECEIVED A HIGH ALARM THAT RESULTED IN AUTOMATIC ACTUATION OF THE ENGINEERED SAFETY FEATURE CONTAINMENT ISOLATION SYSTEM - TECH SPEC 3.3.2.1, TABLE 3.3-3, ITEM 3C (NOT REQUIRED IN MODE 5) - PURGE AND EXHAUST ISOLATION. THE CONTROL TERMINAL PRINTOUT WAS +0.00E+00 MR/HR AT THE TIME OF THE HIGH ALARM. THE HIGH ALARM WAS CLEARED ON VRS-2201 BY GOING TO ALARM 'OFF' AND THEN BACK TO ALARM 'ON' POSITION. THIS RETURNED VRS-2201 TO NORMAL STATUS AND PURGE WAS THEN MANUALLY RESTARTED. THE IDENTICAL SEQUENCE OUTLINED ABOVE OCCURRED 5 ADDITIONAL TIMES: 1829, 2009 AND 2139 HRS ON MAR 11, 1984, AND 0047 AND 0937 HRS ON MAR 17, 1984. AT THE TIMES OF ALL THE EVENTS, THE CONTROL TERMINAL PRINTOUT READING WAS +0.00E+00 MR/HR WHICH INDICATED THAT NO HIGH AREA RADIATION LEVELS ACTUALLY EXISTED. IT HAS BEEN DETERMINED THAT THESE OCCURRENCES ARE THE RESULT OF EQUIPMENT MALFUNCTIONS DUE TO SOFTWARE PROBLEMS WHICH WERE CORRECTED BY THE INSTALLATION OF NEW SOFTWARE AND VERIFIED TO OPERATE PROPERLY. THIS LER IS BEING UPDATED DUE TO THE RESOLUTION OF THE SOFTWARE PROBLEMS ASSOCIATED WITH THE EBERLINE RADIATION MONITORING SYSTEM.

[56] COOK 2 DOCKET 50-316 LER 84-008 REV 1
UPDATE ON CONTAINMENT PURGE ISOLATION OCCURS TWICE.
EVENT DATE: 041984 REPORT DATE: 053184 NSSS: WE TYPE: PWR
VENDOR: EBERLINE INSTRUMENT CORP.

(NSIC 190614) TWO INCIDENTS OCCURRED DURING MODE 6 IN WHICH CONTAINMENT PURGE ISOLATED DUE TO SOFTWARE ERRORS IN THE EBERLINE RADIATION MONITORING SYSTEM. THE SOFTWARE ERRORS CAUSED SPURIOUS RADIATION MONITOR HIGH ALARMS ON THE CONTAINMENT AREA RADIATION MONITOR--TRAIN A, VRS-2101. THESE INCIDENTS ARE BEING REPORTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50.73(A)(2)(IV) WHICH STATES: 'ANY EVENT OR CONDITION THAT RESULTED IN MANUAL OR AUTOMATIC ACTUATION OF ANY ENGINEERED SAFETY FEATURE (ESF) INCLUDING THE REACTOR PROTECTION SYSTEM (RPS). HOWEVER, ACTUATION OF AN ESF, INCLUDING THE RPS, THAT RESULTED FROM AND WAS PART OF THE PREPLANNED SEQUENCE DURING TESTING OR REACTOR OPERATION NEED NOT BE REPORTED.' AT THE TIME OF THESE OCCURRENCES, THE CONTAINMENT PURGE PROCEDURES DID NOT ADDRESS EXPECTED RESULTS OR PREPLANNED SEQUENCES IDENTIFIED IN NUREG (1022) PARAGRAPHS (50.73(A)(2)(IV)). EACH UNITS PROCEDURE HAS BEEN CHANGED TO IDENTIFY THIS EXPECTED SITUATION WHICH WILL PREVENT THE NEED TO REPORT ANY SIMILAR INCIDENTS OF THIS NATURE.

[57] COOK 2 DOCKET 50-316 LER 84-014
LOSS OF RESIDUAL HEAT REMOVAL PUMPS.
EVENT DATE: 052184 REPORT DATE: 062184 NSSS: WE TYPE: PWR

(NSIC 190615) WITH THE UNIT IN COLD SHUTDOWN (MODE 5) AND THE REACTOR COOLANT SYSTEM AT HALF-LOOP, THE CONTROL ROOM OPERATORS STARTED A SECOND RESIDUAL HEAT REMOVAL (PHR) PUMP IN PREPARATION FOR REMOVING THE OPERATING RHR PUMP FROM SERVICE. WITH BOTH PUMPS RUNNING, FLOW BECAME EXCESSIVE FOR THE HALF-LOOP CONDITION CAUSING CAVITATION AND AIR BINDING OF BOTH PUMPS. BOTH PUMPS WERE OUT OF SERVICE FOR APPROX 25 MINS WHILE THEY WERE BEING VENTED WHICH IS WITHIN THE 1 HR ACTION STATEMENT TIME LIMIT OF TECH SPEC 3.4.1.3. TO PREVENT RECURRENCE THE PROCEDURE WHICH CONTROLS THE OPERATION OF THE RHR PUMPS HAS BEEN CHANGED TO INCLUDE SPECIFIC INSTRUCTIONS TO STOP THE OPERATING PUMP PRIOR TO STARTING THE SECOND PUMP WHILE AT HALF-LOOP.

[58] COOK 2 DOCKET 50-316 LER 84-017
 REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE MISSED.
 EVENT DATE: 070484 REPORT DATE: 072684 NSSS: WE TYPE: PWR

(NSIC 190726) ON 7/4/84 AT 0330 WHILE THE UNIT WAS IN MODE 3 (HOT STANDBY), IT WAS DISCOVERED THAT THE SURVEILLANCE REQUIREMENTS OF TECH SPEC 3.3.1.1 TABLE 4.3-1 ITEM 5 WERE NOT PERFORMED AS REQUIRED. THE SURVEILLANCE REQUIREMENTS WERE PREVIOUSLY COMPLETED IN THEIR ENTIRETY ON 7/1/84 JUST PRIOR TO MODE CHANGE INTO MODE 3. THE SURVEILLANCE WAS FOR THE INTERMEDIATE RANGE EXCORE DETECTORS SHIFTLY CHANNEL CHECKS. THE PROCEDURE'S ACCEPTANCE CRITERIA IDENTIFIED THE CHANNEL CHECK REQUIREMENTS FOR ONLY MODES 1 AND 2. THE TECH SPEC ALSO REQUIRES A CHANNEL CHECK WHENEVER THE REACTOR TRIP BREAKERS ARE IN THE CLOSED POSITION AND THE CONTROL ROD DRIVE SYSTEM CAPABLE OF ROD WITHDRAWAL. THE PROCEDURES HAVE BEEN CHANGED TO ADD THE EXTRA REQUIREMENT.

[59] COOPER DOCKET 50-298 LER 84-008
 RADIOACTIVE LIQUID DISCHARGE NOT MONITORED.
 EVENT DATE: 060984 REPORT DATE: 071084 NSSS: GE TYPE: BWR

(NSIC 190797) A DISCHARGE OF LIQUID RADIOACTIVE EFFLUENT OCCURRED WITH THE LIQUID RADIOACTIVE EFFLUENT DISCHARGE MONITOR OUTLET VALVE SHUT WHICH VIOLATED TECH SPEC REQUIREMENT THAT THE ACTIVITY OF THE DISCHARGE BE CONTINUOUSLY MONITORED. NO DISCHARGE LIMITS WERE EXCEEDED. DURING THE SUBSEQUENT INVESTIGATION, THREE PERSONNEL ERRORS WERE IDENTIFIED: A STATION OPERATOR INCORRECTLY POSITIONED A VALVE WHICH RESULTED IN A FALSE INDICATION OF RADIOACTIVE DISCHARGE FLOW THROUGH THE MONITOR. THE OPERATOR INCORRECTLY ASSUMED THE MISPOSITIONED VALVE WAS MECHANICALLY DEFECTIVE. THE STATION OPERATOR'S SUPERVISOR DID NOT QUESTION THE INCORRECT ASSUMPTION THAT THE REPOSITIONED VALVE WAS MECHANICALLY DEFECTIVE. APPARENTLY, TWO DAYS BEFORE THIS EVENT, A TECHNICIAN SHUT THE OUTLET VALVE FROM THE DISCHARGE MONITOR WHILE PERFORMING MAINTENANCE ON THE SAME SYSTEM AND DID NOT REQUEST PERMISSION TO CHANGE THE VALVE'S POSITION NOR INFORM OPERATIONS PERSONNEL OF THIS CHANGE IN VALVE LINEUP. THIS OCCURRENCE WILL BE DISCUSSED AT LENGTH WITH APPROPRIATE SUPERVISORS. PROCEDURES ARE BEING REVISED WHICH WILL PREVENT RECURRENCE OF THIS EVENT. THIS LER WILL BE ROUTED TO ALL OPERATORS AND WILL BE DISCUSSED WITH ALL PERSONNEL WHO CONTRIBUTED TO THIS OCCURRENCE.

[60] CRYSTAL RIVER 3 DOCKET 50-302 LER 82-044 REV 1
 UPDATE ON HANGERS FOR SAFETY CIRCUITS MAY NOT MEET SEISMIC CRITERIA.
 EVENT DATE: 063082 REPORT DATE: 071784 NSSS: BW TYPE: PWR

(NSIC 190518) A PROGRAMMATIC CONCERN THAT AFFECTED THE SEISMIC REQUIREMENTS OF CONDUIT HANGERS WAS IDENTIFIED BY FLORIDA POWER CORPORATION. AS THIS CONCERN WAS BEING REVIEWED, IT WAS DISCOVERED THAT 3 HANGERS THAT AFFECT POWER CONTROL CIRCUITS FOR SAFETY-RELATED CIRCUITS COULD NOT BE DEMONSTRATED TO MEET SEISMIC CRITERIA, CONTRARY TO TECH SPEC 6.9.1.8.I. MAINTENANCE WAS INITIATED AND OPERABILITY RESTORED AT 0230 JULY 1, 1982. THIS IS THE 5TH OCCURRENCE INVOLVING HANGERS AND THE 8TH REPORT UNDER THIS TECH SPEC. THE CAUSE OF THIS EVENT IS ATTRIBUTED TO AN INSUFFICIENTLY EFFECTIVE PROGRAM CONTROL AND PROCEDURAL INADEQUACY. THE PROGRAM AND MAINTENANCE PROCEDURES WERE MODIFIED TO COMPLETE THE DESIGN PRIOR TO INITIAL INSTALLATION. CONDUIT HANGERS THAT COULD NOT MEET TYPICAL DESIGN CRITERIA WERE REANALYZED AND CORRECTIVE ACTION TAKEN.

[61] CRYSTAL RIVER 3 DOCKET 50-302 LER 83-056 REV 1
 UPDATE ON APW PUMP FAILING TO OPERATE.
 EVENT DATE: 112283 REPORT DATE: 042384 NSSS: BW TYPE: PWR
 VENDOR: WOODWARD GOVERNOR COMPANY

(NSIC 190582) AT 1000, ON NOVEMBER 22, 1983, WHILE PERFORMING SURVEILLANCE

PROCEDURE SP-349B, EMERGENCY FEEDWATER SYSTEM OPERABILITY DEMONSTRATION, THE GOVERNOR ON THE EMERGENCY FEEDWATER PUMP (EFP-2) WAS DISCOVERED TO BE SET INCORRECTLY. THE CONTROL KNOB WAS ADJUSTED TO THE PROPER SETTING AND THE SURVEILLANCE TESTING CONTINUED. THIS IS THE FIRST OCCURRENCE OF EFP-2 GOVERNOR INOPERABILITY AND THE TWENTY-FIFTH REPORT UNDER TECH SPEC 3.7.1.2. THE SETTING OF THE EFP-2 GOVERNOR WAS INADVERTENTLY CHANGED. SURVEILLANCE PROCEDURE SP-300, OPERATING DAILY SURVEILLANCE LOG, WAS REVISED TO REQUIRE CHECKING THE GOVERNOR SETTING ON A DAILY BASIS TO ASSURE THE PROPER SETTING IS MAINTAINED. A LOCKING COVER WAS INSTALLED OVER THE CONTROL KNOB TO PREVENT RECURRENCE.

[62] CRYSTAL RIVER 3 DOCKET 50-302 LER 84-001 REV 1
 UPDATE ON REACTOR BUILDING CONTAINMENT PENETRATION NOT DESIGNED IN ACCORDANCE WITH FSAR.
 EVENT DATE: 011384 REPORT DATE: 062684 NSSS: BW TYPE: PWR
 VENDOR: CHICAGO BRIDGE AND IRON COMPANY

(NSIC 190551) DURING A REFUELING OUTAGE (MAY 1983) THE END CAP OF A PENETRATION IN THE REACTOR CONTAINMENT BUILDING WAS INCORRECTLY CUT OFF. SUBSEQUENTLY A PLANT MODIFICATION PACKAGE WAS ISSUED TO REPLACE THE END CAP. A ROUTINE REVIEW OF THE MODIFICATION PACKAGE ON JAN 13, 1984 DISCOVERED SEVERAL DESIGN SPECIFICATIONS THAT WERE INCONSISTENT WITH FSAR COMMITMENTS. PERSONNEL ERROR IS THE CAUSE OF THIS EVENT IN THAT BOTH THE DESIGN ENGINEER (ON CONTRACT TO FLORIDA POWER CORPORATION) AND THE VERIFICATION ENGINEER (A FLORIDA POWER CORPORATION EMPLOYEE) FAILED TO FOLLOW APPLICABLE ENGINEERING PROCEDURES. THE VERIFICATION ENGINEER HAS BEEN RETRAINED ON FOLLOWING APPLICABLE ENGINEERING PROCEDURES. THE DESIGN ENGINEER NO LONGER WORKS FOR FLORIDA POWER CORPORATION. THE RESULTS OF THE LOCAL LEAK RATE TEST THAT WAS PERFORMED ON THE PENETRATION (JULY 2, 1983) AND SUBSEQUENT ENGINEERING EVALUATION (JAN, 1984) INDICATE THAT THE END CAP WILL PERFORM ITS INTENDED SAFETY FUNCTION UNDER THE WORST CASE LOCA CONDITIONS AND THUS JUSTIFIES CONTINUED OPERATION WITH THE AS-BUILT PENETRATION UNTIL THE NEXT REFUELING OUTAGE (MAR, 1985). AN ENGINEERING EVALUATION WAS PERFORMED WHICH CONCLUDED THAT THE PENETRATION IS ACCEPTABLE "AS IS" FOR THE REMAINDER OF PLANT LIFE.

[63] CRYSTAL RIVER 3 DOCKET 50-302 LER 84-004 REV 1
 UPDATE ON POST ACCIDENT SAMPLING SYSTEM MANUAL ISOLATION VALVES FOUND CLOSED.
 EVENT DATE: 022884 REPORT DATE: 080984 NSSS: BW TYPE: PWR

(NSIC 190717) ON FEB 28, 1984, WHILE CONDUCTING A POST-INSTALLATION ENGINEERING REVIEW OF THE POST-ACCIDENT SAMPLING SYSTEM (PASS), UTILITY PERSONNEL DISCOVERED THAT 6 MANUAL ISOLATION VALVES WERE CLOSED, THEREBY REDUCING THE SYSTEM'S CAPABILITY TO PERFORM AS DESIGNED. FLORIDA POWER CORP. HAD DECLARED THE PASS OPERABLE ON JAN 1, 1984. THE SAMPLING CAPACITY OF THE REACTOR COOLANT SYSTEM WAS AVAILABLE THROUGH THE NORMAL LETDOWN AND PRESSURIZER PRIMARY SAMPLING FLOWPATHS. THE RADIOLOGICAL CONSEQUENCES OF SUCH SAMPLING WERE EVALUATED AND FOUND TO BE INSIGNIFICANT. PERSONNEL ERROR AND INADEQUACIES IN THE MODIFICATION APPROVAL RECORD (MAR) PROCESS ARE THE CAUSES OF THE EVENT. ALL SIX VALVES WERE OPENED. PROCEDURES AND THE MAR PROCESS WILL ALSO BE REVISED TO PREVENT RECURRENCE. THIS IS A VOLUNTARY REPORT.

[64] CRYSTAL RIVER 3 DOCKET 50-302 LER 84-012
 ALL AUXILIARY BUILDING EXHAUST FANS LOST.
 EVENT DATE: 061584 REPORT DATE: 071384 NSSS: BW TYPE: PWR
 VENDOR: JOHNSON CONTROLS INC.

(NEIC 190718) ON JUN 15, 1984, AN INSTRUMENT AIR SUPPLY LINE TO THE DAMPERS FOR THE AUX BLDG EXHAUST FANS (AHF-14A,B,C,D) WAS BROKEN. THE SUCTION AND DISCHARGE DAMPERS FOR AHF-14A,B,C,D FAILED CLOSED AND THE FANS WERE SECURED TO PREVENT

DAMAGE. TECH SPEC 3.7.8.1 REQUIRES TWO INDEPENDENT PAIRS OF EXHAUST FANS AND FOUR FILTER SYSTEMS TO BE OPERABLE. THIS FAILURE RENDERED BOTH PAIRS OF EXHAUST FANS INOPERABLE, HENCE, THE LIMITING CONDITION FOR OPERATION AS SPECIFIED IN TECH SPEC 3.7.8.1 COULD NOT BE MET AND TECH SPEC 3.0.3 WAS APPLIED. IN ADDITION, THE INSTRUMENT AIR LINE SUPPLIED OPENING AIR TO THE REACTOR BLDG EXHAUST FAN DAMPERS. WITH THESE DAMPERS CLOSED THE FLOW PATH FOR THE HYDROGEN PURGE SYSTEM REQUIRED BY TECH SPEC 3.6.4.2 WAS INOPERABLE. THE INSTRUMENT AIR SUPPLY LINE WAS SUBSEQUENTLY REPAIRED AND THE EXHAUST FANS WERE RETURNED TO SERVICE PRIOR TO STARTING A LOAD REDUCTION REQUIRED BY TECH SPEC 3.0.3.

[65] CRYSTAL RIVER 3 DOCKET 50-302 LER 84-014
AUXILIARY BUILDING EXHAUST FANS OUT OF SERVICE FOR MAINTENANCE.
EVENT DATE: 062584 REPORT DATE: 072584 NSSS: BW TYPE: PWR

(NSIC 190667) ON MAR 22, 1984 AND JUN 25, 1984, THE AUXILIARY BLDG EXHAUST FANS WERE TAKEN OUT OF SERVICE IN ORDER TO PERFORM MODIFICATIONS TO THE VENTILATION SYSTEM DAMPERS. TECH SPEC 3.7.8.1 REQUIRES TWO INDEPENDENT PAIRS OF EXHAUST FANS BE OPERABLE. WITH BOTH PAIRS OF EXHAUST FANS OUT OF SERVICE, THE LIMITING CONDITION AS SPECIFIED IN TECH SPEC 3.7.8.1 WAS NOT MET AND TECH SPEC 3.0.3 WAS ENTERED. THESE TWO EVOLUTIONS WERE ORIGINALLY DETERMINED TO BE NONREPORTABLE, SINCE TECH SPEC 3.0.3 WAS ENTERED VOLUNTARILY FOR MAINTENANCE PURPOSES. A SUBSEQUENT EVALUATION MADE ON JUL 13, 1984 DETERMINED THAT THE EVOLUTIONS WOULD BE REPORTED.

[66] DAVIS-BESSE 1 DOCKET 50-346 LER 81-023 REV 2
UPDATE ON LOSS OF COOLING WATER TO DECAY HEAT COOLER.
EVENT DATE: 040381 REPORT DATE: 070684 NSSS: BW TYPE: PWR
VENDOR: HAMMEL DAHL

(NSIC 190651) (NP-33-81-25) ON APRIL 3, 1981, AT 1450 HOURS DURING THE PERFORMANCE OF THE COMPONENT COOLING WATER MONTHLY TEST ST 5074.01, DECAY HEAT COOLER OUTLET VALVE CC 1467 WAS STROKED CLOSED AND WOULD NOT REOPEN. DECAY HEAT TRAIN 1 WAS DECLARED INOPERABLE, PLACING THE UNIT IN THE ACTION STATEMENT OF TECH SPEC 3.5.2. DECAY HEAT TRAIN 2 WAS OPERABLE DURING THIS TIME. THE CAUSE WAS INITIALLY ATTRIBUTED TO A DESIGN DEFICIENCY SINCE THE ACTUATOR ARM WAS FORCED TO THE SIDE AT THE END OF THE STROKE CAUSING EXCESSIVE WEAR. THE ACTUATOR WAS REBUILT AND THE VALVE THEN STROKED PROPERLY AFTER THE APRIL 3 FAILURE. ON NOVEMBER 30, 1982, A DETAILED INSPECTION AFTER A SUBSEQUENT FAILURE FOUND THAT FLANGE BEARING WAS MISSING. FACILITY CHANGE REQUEST 81-128 HAS BEEN VOIDED.

[67] DAVIS-BESSE 1 DOCKET 50-346 LER 82-057 REV 1
UPDATE ON SPENT FUEL POOL DOOR FOUND OPEN.
EVENT DATE: 110582 REPORT DATE: 070684 NSSS: BW TYPE: PWR

(NSIC 190520) (NP-33-82-70) ON 11/5/82 AT 1350 HRS, AN OPERATOR FOUND DOOR 400 NOT COMPLETELY CLOSED AND LATCHED. THE DOOR WAS NOT BLOCKED OPEN, BUT WAS BEING HELD OPEN BY A DIFFERENTIAL PRESSURE ACROSS IT. SINCE DOOR 400 IS A NEGATIVE PRESSURE BOUNDARY DOOR FOR THE SPENT FUEL POOL AREA AND A FIRE DOOR, THE UNIT ENTERED THE ACTION STATEMENTS OF TECH SPECS 3.9.12 AND 3.7.10. THE DIFFERENTIAL PRESSURE CREATED BY AN EMERGENCY VENTILATION SYSTEM ACTUATION WOULD HAVE CAUSED THE DOOR TO CLOSE. THE CAUSE IS PERSONNEL ERROR IN THAT THE LAST PERSON THROUGH THE DOOR DID NOT ENSURE THAT IT WAS SECURELY CLOSED. UPON DISCOVERY, THE OPERATOR CLOSED THE DOOR, REMOVING THE UNIT FROM THE ACTION STATEMENTS. IN ADDITION TO PREVIOUS ACTIONS TAKEN TO PREVENT RECURRENCE, SECURITY NOW REQUIRES ALL PERSONNEL TO SIGN A PAGE OF 'BASIC SECURITY PROCEDURES' PRIOR TO RECEIVING A BADGE.

[68] DAVIS-BESSE 1 DOCKET 50-346 LER 84-008
 POTENTIAL LOSS OF DIESEL GENERATOR ROOM AND OTHER AREA VENTILATION.
 EVENT DATE: 060584 REPORT DATE: 070384 NSSS: BW TYPE: PWR

(NSIC 190740) ON JUN 5, 1984, THE SHIFT SUPERVISOR WAS NOTIFIED THAT THERE WAS A DOCUMENTATION PROBLEM WITH THE SEISMIC QUALIFICATION OF TRANSFORMERS INSTALLED IN TWO MOTOR CONTROL CENTERS. ENGINEERING HAD DETERMINED THAT THE OPERABILITY OF THE MOTOR CONTROL CENTERS WOULD BE AFFECTED DURING A SEISMIC EVENT. THE TWO MOTOR CONTROL CENTERS PROVIDE POWER TO EMERGENCY DIESEL GENERATOR ROOM VENTILATION DAMPERS AND LOW VOLTAGE SWITCHGEAR ROOM VENTILATION DAMPERS WHICH ARE REQUIRED FOR EQUIPMENT OPERABILITY. AT THE TIME OF THE NOTIFICATION OF THE DOCUMENTATION PROBLEM ONLY MOTOR CONTROL CENTER YE1 WAS DECLARED INOPERABLE SINCE THE TRANSFORMER SUPPLYING YF HAD JUST BEEN REPLACED. THE REASON FOR DECLARING THE MOTOR CONTROL CENTER INOPERABLE WAS NOTIFICATION BY WESTINGHOUSE, CHICAGO FACILITY, THAT COMPATIBILITY AND INTERCHANGEABILITY WITH THE ORIGINAL DESIGN OF TRANSFORMERS INSTALLED JAN 19, 1984, COULD NOT BE SUBSTANTIATED. THE CAUSE OF UNQUALIFIED TRANSFORMERS BEING INSTALLED IN YE1 AND YF1 WAS A BREAKDOWN IN THE WESTINGHOUSE QA PROGRAM. TO CORRECT THE DEVIATION, THE OTHER TRANSFORMER, WHICH HAD BEEN REMOVED TO SUPPORT A WESTINGHOUSE MOTOR CONTROL CENTER COMPONENT REQUALIFICATION TESTING PROGRAM, WAS REINSTALLED. WESTINGHOUSE CHICAGO HAS BEEN DIRECTED TO COMPLY WITH THEIR QUALITY ASSURANCE PROGRAM AND TO REVIEW DOCUMENTATION FOR ITEMS SUPPLIED BY THE CHICAGO FACILITY TO TOLEDO EDISON TO SEE IF ADDITIONAL DISCREPANCIES EXIST.

[69] DAVIS-BESSE 1 DOCKET 50-346 LER 84-009
 POTENTIAL PIPING BREAKS, STARTUP FEEDWATER PUMP PIPING BREAK COULD POTENTIALLY DAMAGE AUX FW PIPING.
 EVENT DATE: 061884 REPORT DATE: 061884 NSSS: BW TYPE: PWR

(NSIC 190805) DURING THE CONCEPTUAL DESIGN STAGE OF FACILITY CHANGE REQUEST 83-159 AND WORK ON NON-CONFORMANCE REPORT 84030, IT WAS DISCOVERED THAT AN UNANALYZED SITUATION EXISTED IN AUX FEEDWATER PUMP ROOMS 237 AND 238 DUE TO POTENTIAL PIPE BREAK EFFECTS FROM NON-SEISMIC PIPING LOCATED IN THESE ROOMS. THIS NON-SEISMIC PIPING IS ASSOCIATED WITH THE STARTUP FEEDWATER PUMP. AUX FEEDWATER PUMP ROOM 238 (AUX FEEDWATER PUMP 1-1) COULD HAVE BEEN AFFECTED BY A HIGH ENERGY PIPE BREAK IN THE STARTUP FEEDWATER PUMP SUCTION PIPING. THE ROOM WOULD ALSO BE AFFECTED BY FLOODING IN THE EVENT THAT THE NON-SEISMIC TURBINE PLANT COOLING WATER PIPING SERVING THE STARTUP FEEDWATER PIPING COOLERS RUPTURED. AUX FEEDWATER PUMP ROOM 237 (AUX FEEDWATER PUMP 1-2) COULD HAVE BEEN AFFECTED BY A MODERATE ENERGY PIPE BREAK IN THE STARTUP FEEDWATER PUMP SUCTION PIPING.

[70] DAVIS-BESSE 1 DOCKET 50-346 LER 84-010
 UNPLANNED REACTOR SHUTDOWN DUE TO PERSONNEL ERROR.
 EVENT DATE: 062484 REPORT DATE: 072484 NSSS: BW TYPE: PWR

(NSIC 190806) AT 0420 HRS ON JUN 24, 1984, WITH THE UNIT AT 94% OF FULL POWER, 840 MWE, DAVIS-BESSE UNIT 1 EXPERIENCED A LOSS OF POWER TO Y4, THE CHANNEL 4 ESSENTIAL 120V AC BUS. THIS DEENERGIZED CHANNEL 4 OF THE REACTOR PROTECTION SYSTEM AND OPENED ITS ASSOCIATED CONTROL ROD DRIVE BREAKER ~~WAT~~ 'A' AND 'C.' THE FAILURE ~~WAT~~ IN THE YV4 INVERTER. IT WAS REPAIRED, AND Y4 BUS WAS DECLARED OPERABLE AT 1057 HRS ON JUN 24, 1984. AFTER THE REQUIRED SURVEILLANCE TEST WAS DONE ON REACTOR PROTECTION SYSTEM CHANNEL 4, THE INSTRUMENT AND CONTROL MECHANIC, WHO HAD BEEN DOING THE TEST, INTENDING TO CLOSE THE OPEN CONTROL ROD DRIVE BREAKER, WHICH HE THOUGHT WAS BREAKER 'D,' PROCEEDED TO CONTROL ROD DRIVE BREAKER 'D' AND ACCIDENTALLY OPENED IT, CAUSING A REACTOR SHUTDOWN AT 1354 HRS ON JUN 24, 1984. PLANT POST TRIP RESPONSE WAS AS EXPECTED WITH NO SAFETY LIMITS EXCEEDED.

[71] DIABLO CANYON 1 DOCKET 50-275 LER 83-034 REV 1
 UPDATE ON RHR CONTROL CIRCUITRY WIRING ERRORS.
 EVENT DATE: 120683 REPORT DATE: 052284 NSSS: WE TYPE: PWR

(NSIC 190523) WHILE IN MODE 5, SEVERAL WIRING TERMINATIONS WERE IDENTIFIED WHICH WERE INCONSISTENT WITH CIRCUITRY SCHEMATICS AFFECTING CONTROL POWER TRANSFER RELAYS FOR THE RHR PUMP CONTROL CIRCUITS. THIS EVENT IS REPORTABLE PER PART 2.H OF THE DIABLO CANYON UNIT 1 OPERATING LICENSE. THE CAUSES OF THIS EVENT WERE THAT MODIFICATIONS TO THE RHR CONTROL POWER TRANSFER RELAY WERE NOT FULLY IMPLEMENTED AND THE POST INSTALLATION TEST PROCEDURE WAS NOT ADEQUATE TO CHECK THAT THE MODIFICATIONS WERE INSTALLED CORRECTLY. THE CIRCUIT INCONSISTENCY HAS BEEN CORRECTED. THE DESCRIPTION OF CAUSES AND CORRECTIVE ACTIONS HAS BEEN LISTED.

[72] DIABLO CANYON 1 DOCKET 50-275 LER 84-017
 PLANT VENT IODINE SAMPLER FLOW RATE SWITCH FAILS.
 EVENT DATE: 062984 REPORT DATE: 073084 NSSS: WE TYPE: PWR
 VENDOR: RAECO INC

(NSIC 190657) IN MODE 5 (COLD SHUTDOWN) WITH THE PLANT VENT IODINE SAMPLER FLOW RATE MONITOR (FIS-24) INOPERABLE, PLANT PERSONNEL DID NOT COMPLY WITH THE CORRECT TECH SPEC ACTION STATEMENT FOR A PERIOD OF NINE DAYS. NO RADIOACTIVE RELEASES WERE MADE DURING THIS PERIOD. CORRECTIVE ACTIONS INCLUDED PROVIDING A CLARIFICATION TO OPERATIONS PERSONNEL ON THE ACTIONS CONCERNING THE FAILURE OF FIS-24 AND REVISING THE APPLICABLE SURVEILLANCE TEST PROCEDURE CHECKLIST.

[73] DRESDEN 2 DOCKET 50-237 LER 84-005
 FIRE SYSTEM CONTROL ROOM ALARMS DECLARED INOPERABLE.
 EVENT DATE: 061884 REPORT DATE: 071784 NSSS: GE TYPE: BWR

(NSIC 190591) DURING NORMAL OPERATIONS, THE SECURITY COMPUTER WAS TAKEN OUT-OF-SERVICE BY OAD. THE SHIFT WAS NOTIFIED OF THE COMPUTER OUTAGE IMMEDIATELY. HOWEVER, THE SHIFT DID NOT NOTIFY THE FIRE MARSHAL UNTIL THE FOLLOWING MORNING AND AT THIS TIME AN HOURLY FIRE INSPECTION WAS ESTABLISHED DUE TO THE INOPERABILITY OF THE CONTROL ROOM FIRE DETECTION ALARM AND SPRINKLER ALARM PRINTER INDICATIONS. THE FIRE WATCH WAS TERMINATED ONCE THESE ALARM INDICATIONS WERE VERIFIED OPERABLE BY OAD. TO ENSURE FIRE DETECTION SYSTEM CONTROL ROOM ALARMS AND SPRINKLER ALARMS ARE OPERABLE, THE SHIFT WILL CHECK THE ALARM INDICATIONS STATUS EACH TIME A COMPUTER OUTAGE OCCURS. DAP 7-13 "CONTROL OVER COMPUTER OPERATIONS PROCEDURE" WILL BE REVISED TO ESTABLISH ADMINISTRATIVE CONTROLS TO BE FOLLOWED DURING A SECURITY COMPUTER OUTAGE. THIS IS THE FIRST OCCURRENCE OF THIS KIND AT DRESDEN STATION.

[74] DRESDEN 2 DOCKET 50-237 LER 84-009
 REACTOR SCRAM ON LOW VESSEL WATER LEVEL.
 EVENT DATE: 062184 REPORT DATE: 071284 NSSS: GE TYPE: BWR
 VENDOR: CRANE COMPANY

(NSIC 190703) DURING NORMAL OPERATIONS, THE 'A' FEEDWATER REGULATING VALVE OPERATOR VIBRATED LOOSE FROM THE VALVE STEM COUPLING. THE VALVE DISC FAILED IN THE CLOSED DIRECTION CAUSING THE UNIT TO SCRAM ON LOW REACTOR WATER LEVEL. SAFETY SIGNIFICANCE WAS MINIMAL, SINCE ALL EMERGENCY SYSTEMS WERE OPERABLE AND OPERATED AS DESIGNED. THE OPERATOR AND VALVE STEM WERE RECONNECTED, AND TWO SHEET METAL LOCK TABS WERE FORMED AND INSTALLED TO PREVENT RECURRENCE.

[75] DRESDEN 2 DOCKET 50-237 LER 84-010
LOSS OF FEEDER BREAKER POSITION INDICATION FROM BUS 29 TO BUS 29-7.
EVENT DATE: 062684 REPORT DATE: 072484 NSSS: GE TYPE: BWR

(NSIC 190787) DURING A UNIT START-UP, FEEDER BREAKER POSITION INDICATION IN THE CONTROL ROOM WAS LOST ON THE BREAKER AT BUS 29 WHICH FEEDS MCC 28-7 AND 29-7. A SECOND BREAKER IS LOCATED AT MCC 29-7; BOTH OPERATE OFF A SINGLE CONTROL SWITCH IN THE CONTROL ROOM. FOLLOWING A LIGHT BULB INTEGRITY CHECK, AN OPERATOR WAS SENT TO RESET THE BREAKER AT MCC 29-7. THIS SEEMED TO BE THE CORRECT CHOICE BASED ON THE CONTROL ROOM LAYOUT OF BREAKER INDICATION. THE BREAKER AT MCC 29-7 WAS INADVERTENTLY TRIPPED, ISOLATING MCC 28-7 AND 29-7 AND CAUSING LPCI TO BE INOPERABLE. A GSEP UNUSUAL EVENT WAS DECLARED. TWO ATTEMPTS AT THIS TIME TO ENERGIZE MCC 28-7 AND 29-7 FAILED. IT WAS NOW EVIDENT THAT THE BREAKER WITH NO INDICATION WAS AT BUS 29. WHILE PREPARING TO USE THE ALTERNATE FEED FROM BUS 28, THE NORMAL FEED CONTROL SWITCH FROM BUS 29 WAS PLACED IN PULL-TO-LOCK. AN OPEN BREAKER POSITION LIGHT APPEARED FOR THE BREAKER AT BUS 29 AND BREAKER CONTROL RETURNED. THE NSO CLOSED THE CONTROL SWITCH FROM BUS 29 AND RE-ENERGIZED MCC 28-7 AND 29-7. ALL BREAKER INDICATIONS APPEARED NORMAL. SUBSEQUENT INVESTIGATION REVEALED A LOOSE WIRE ON THE BREAKER CONTROL SWITCH AT THE 902-8 PANEL CAUSING AN INTERMITTENT LOSS OF BREAKER INDICATION AND BREAKER CONTROL. THE TOTAL ELAPSED TIME FOR THIS EVENT WAS APPROX. 28 MINS.

[76] DRESDEN 2 DOCKET 50-237 LER 84-015
SURVEILLANCE INTERVAL EXCEEDED FOR PUMPING DRYWELL EQUIPMENT DRAIN AND FLOOR DRAIN PUMPS.
EVENT DATE: 062784 REPORT DATE: 080284 NSSS: GE TYPE: BWR

(NSIC 190789) DURING STARTUP OPERATION, THE 2000 TIME PUMPDOWN OF THE DRYWELL EQUIPMENT AND FLOOR DRAIN SUMPS WAS NOT PERFORMED UNTIL 2210. THE PREVIOUS PUMPDOWN HAD BEEN AT 1600 THEREFORE EXCEEDING THE REQUIRED SURVEILLANCE INTERVAL PER TECH SPEC 4.6.D.1. AS SOON AS THE ERROR WAS REALIZED THE SUMPS WERE PUMPED DOWN. CALCULATED LEAKAGE RATES WERE WITHIN SPECIFIED LIMITS AND INDICATED AN APPRECIABLE INCREASE IN LEAKAGE, THEREFORE MAKING THIS EVENT OF MINIMAL SAFETY SIGNIFICANCE. LAST PREVIOUS OCCURRENCE WAS REPORTED BY DVR 12-2-84-34. ORIGINALLY, THIS EVENT WAS MISCLASSIFIED AS NON-REPORTABLE DUE TO STATION PERSONNEL NOT UNDERSTANDING THE NEW 10 CFR 50.73 RULES.

[77] DRESDEN 2 DOCKET 50-237 LER 84-012
REACTOR SCRAM OCCURS DUE TO ELECTRICAL SPIKE AND MISTAKENLY OPERATED SWITCH.
EVENT DATE: 070984 REPORT DATE: 071784 NSSS: GE TYPE: BWR

(NSIC 190788) WHILE PERFORMING THE MAIN STEAM LINE LOG RADIATION MONITORING SYSTEM CALIBRATION (DIS 1700-1) THE REACTOR SCRAMMED FROM 98% POWER. WITH HYDROGEN ADDITION SYSTEM ON, A HALF SCRAM OCCURRED WHEN AN INSTRUMENT MECHANIC MISTAKENLY TURNED RPS CHANNEL B HYDROGEN ADDITION SWITCH TO OFF INSTEAD OF RPS CHANNEL A HYDROGEN ADDITION SWITCH. BEFORE CORRECTING THE MISTAKE A VOLTAGE SPIKE TRIPPED RPS CHANNEL A ON MAIN STEAM LINE HIGH HIGH RADIATION CAUSING A FULL REACTOR SCRAM AND A GROUP I ISOLATION. THE ISOLATION CONDENSER AUTOMATICALLY INITIATED CAUSING A SMALL AMOUNT OF RADIOACTIVITY TO BE RELEASED WITHIN THE SECURITY FENCE BOUNDARY. ALL APPROPRIATE PROTECTIVE SYSTEMS FUNCTIONED AS DESIGNED IN RESPONSE TO THIS EVENT AND THE RADIOACTIVITY RELEASE WAS BELOW 10 CFR 20 LIMITS.

[78] DRESDEN 3 DOCKET 50-249 LER 84-006
REACTOR NOT VENTED WITH VESSEL TEMPERATURE LESS THAN PRESSURIZATION TEMPERATURE.
EVENT DATE: 070684 REPORT DATE: 080784 NSSS: GE TYPE: BWR

(NSIC 190791) WITH THE REACTOR LOCKED IN SHUTDOWN SINCE EARLY APR 1984, FOR

TURBINE WORK, THE SHIFT CONTROL ROOM ENGINEER OBSERVED THAT THE REACTOR VESSEL WAS NOT VENTED AT LESS THAN 149 F. REACTOR PRESSURE WAS 0 PSIG, AND REACTOR VESSEL LEVEL WAS PLUS 308 INCHES AT THE TIME OF THIS OBSERVATION. THIS EVENT WAS THE FIRST VIOLATION OF TECH SPEC 3.5.B.1 VENTING REQUIREMENT AT DRESDEN. UPON DISCOVERY OF THE VIOLATION, REACTOR METAL TEMPERATURE WAS INCREASED. THIS EVENT WAS OF MINIMAL SAFETY SIGNIFICANCE, SINCE NO CONTROL ROD DRIVE PUMP WAS RUNNING, AND ONE CONDENSATE PUMP WAS RUNNING. BOTH RECIRCULATION PUMPS WERE RUNNING TO MAINTAIN REACTOR WATER TEMPERATURE BETWEEN 130 TO 149 F. IF THE REACTOR VESSEL WAS INADVERTENTLY PRESSURIZED, REACTOR TEMPERATURE WAS ABOVE THE 100 F MINIMUM TEMPERATURE REQUIRED FOR AN INSERVICE PRESSURE TEST. OPERATING PERSONNEL WILL BE REINDEED OF PROCEDURE REQUIREMENT DURING THE OPERATOR TRAINING WEEK. POSSIBILITY OF TECH SPEC CHANGE IS BEING INVESTIGATED TO PREVENT RECURRENCE.

[79] FARLEY 2 DOCKET 50-364 LER 84-002 REV 2
 UPDATE ON MISSED FIREWATCH PATROL.
 EVENT DATE: 012384 REPORT DATE: 041984 NSSS: WE TYPE: PWR

(NSIC 190442) AT 1500 ON 1/23/84, IT WAS DETERMINED THAT AN HOURLY FIREWATCH PATROL IN THE B TRAIN AUXILIARY BUILDING BATTERY CHARGER ROOM, AS REQUIRED BY TECH SPEC 3.3.3.9, HAD NOT BEEN PERFORMED DURING THE 1300-1400 AND 1400-1500 HOURS. THE FIREWATCH PATROL WAS IMMEDIATELY PERFORMED FOR THE 1500-1600 HOUR AND ALL SUBSEQUENT HOURS AS REQUIRED.

[80] FITZPATRICK DOCKET 50-333 LER 83-049 REV 1
 UPDATE ON HPCI TURBINE STOP VALVE STEM FAILURE.
 EVENT DATE: 102283 REPORT DATE: 060184 NSSS: GE TYPE: BWR
 VENDOR: SCHUTTE AND KOERING COMPANY

(NSIC 190585) UPDATE REPORT: DURING NORMAL FULL POWER OPERATION THE HPCI SYSTEM WAS DECLARED INOPERABLE WHEN REQUIRED BY TECH SPEC 3.5.C. OTHER SYSTEMS WERE TESTED AS REQUIRED BY TECH SPEC 4.5.C.1.A AND WERE FULLY OPERABLE. HPCI INOPERABILITY WAS CAUSED BY FRACTURE OF THE TURBINE STOP VALVE STEM AS A RESULT OF EXCESSIVE TENSILE STRESS. THE EXCESSIVE STRESS WAS THE RESULT OF IMPROPER ADJUSTMENT OF THE STOP VALVE BALANCE CHAMBER. CORRECTIVE ACTION INCLUDED REPLACEMENT OF THE VALVE STEM AND ADJUSTMENT OF THE BALANCE CHAMBER.

[81] FITZPATRICK DOCKET 50-333 LER 84-010 REV 1
 UPDATE ON REACTOR TRIP DUE TO LOW WATER LEVEL.
 EVENT DATE: 032584 REPORT DATE: 060184 NSSS: GE TYPE: BWR
 VENDOR: GRAHAM MFG CO.
 WORTHINGTON PUMP CORP.

(NSIC 190622) WHILE OPERATING AT 25% POWER DURING A REACTOR STARTUP A SCRAM OCCURRED CAUSED BY LOW REACTOR VESSEL LEVEL. THE LOW LEVEL WAS CAUSED BY THE LOSS OF THE SINGLE OPERATING REACTOR FEED PUMP DUE TO A CONTROL OIL LEAK. HPCI AND RCIC WERE MANUALLY INITIATED AND USED TO MAINTAIN VESSEL LEVEL. AFTER THE NEED FOR HPCI HAD PASSED IT WAS NOTED THAT A GASKET ON THE GLAND SEAL CONDENSER HAD DEVELOPED A LEAK. TO ISOLATE THE LEAK, HPCI WAS MADE INOPERATIVE. THE TRANSIENT PROCEEDED NORMALLY AND ALL SYSTEMS PERFORMED AS DESIGNED.

[82] FITZPATRICK DOCKET 50-333 LER 84-013
 UNIT TRIP - TURBINE BYPASS VALVE MALFUNCTION.
 EVENT DATE: 062584 REPORT DATE: 072384 NSSS: GE TYPE: BWR
 VENDOR: ABEX DENISON COMPANY (DIV OF ABEX CORPORATION)

(NSIC 190737) DURING A PLANT STARTUP WHILE PLACING THE MAIN GENERATOR IN SERVICE A REACTOR SCRAM OCCURRED. THE SCRAM WAS CAUSED BY HIGH REACTOR PRESSURE WHICH

RESULTED WHEN THE TURBINE BYPASS VALVES FAILED CLOSED. PRESSURE PEAKED AT APPROX 1060 PSIG, WELL BELOW THE LOWEST SAFETY RELIEF VALVE SETPOINT. THE SCRAM TRANSIENT PROCEEDED NORMALLY WITH NO OTHER MAJOR MALFUNCTIONS OR INCIDENTS. THE PLANT WAS SUBSEQUENTLY PLACED IN COLD SHUTDOWN WHILE THE PROBLEM WAS INVESTIGATED. THE CAUSE OF THE SCRAM WAS THE PLUGGING OF HYDRAULIC FLUID FILTERS ON THE SERVOACTUATORS FOR TWO OF THE BYPASS VALVES. REACTOR PRESSURE WAS PROPERLY CONTROLLED BY THE SCRAM AND NO OTHER INCIDENTS OCCURRED DURING THE TRANSIENT.

[83] FT. CALHOUN 1 DOCKET 50-285 LER 84-005
FOURTEEN CONTAINMENT VENTILATION ISOLATIONS OCCUR.
EVENT DATE: 050284 REPORT DATE: 060184 NSSS: CE TYPE: PWR

(NSIC 190108) THERE HAVE BEEN 14 UNPLANNED ACTUATIONS OF THE VENTILATION ISOLATION ACTUATION SIGNAL BETWEEN 01/01/84, AND 05/02/84. THESE ARE OUTLINED BELOW BY DATE AND INCLUDE MONITOR CAUSING ACTUATION AND REASON FOR ACTUATION. 1. 1/16/84; RM-061; RADIOACTIVE PARTICULATE INCREASE FROM RADON DAUGHTER PRODUCTS, 2. 1/26/84; RM-061; HIGH RADIOACTIVE PARTICULATE AIRBORNE IN AUX BLDG, 3. 2/16/84; RM-061; RADIOACTIVE PARTICULATE INCREASE FROM RADON DAUGHTER PRODUCTS (SUSPECTED), 4. 2/22/84; RM-061; RADIOACTIVE PARTICULATE INCREASE FROM RADON DAUGHTER PRODUCTS, 5. 2/23/84; RM-061; RADIOACTIVE PARTICULATE INCREASE FROM RADON DAUGHTER PRODUCTS, 6. 3/4/84; RM-060; IODINE ACCUMULATION WAS FASTER THAN NORMAL ON THE RM-060 CARTRIDGE, 7. 3/5/84; RM-060; IODINE ACCUMULATION WAS FASTER THAN NORMAL ON THE RM-060 CARTRIDGE, 8. 3/15/84; RM-060; IODINE ACCUMULATION WAS FASTER THAN NORMAL ON THE RM-060 CARTRIDGE, 9. 4/6/84; RM-060; IODINE ACCUMULATION WAS FASTER THAN NORMAL ON THE RM-060 CARTRIDGE, 10. 4/18/84; RM-050; LOOSE SURFACE CONTAMINATION ON A PIECE OF EQUIPMENT CAUSED HIGH AIRBORNE ACTIVITY IN CONTAINMENT, 11. 4/18/84; RM-060; SPURIOUS ACTUATION, 12. 4/24/84; RM-051; SPURIOUS ELECTRICAL SPIKE, 13. 4/24/84; RM-060; INADVERTENT ACTUATION WHILE BEING CALIBRATED, 14. 5/2/84; RM-060; CALIBRATION TEST SWITCH WAS RELEASED TOO SOON AFTER A CALIBRATION CHECK. THE MONITORS THAT TRIPPED SPURIOUSLY WERE RECALIBRATED. NO EQUIPMENT MALFUNCTIONS WERE IDENTIFIED.

[84] FT. CALHOUN 1 DOCKET 50-285 LER 84-007
VIAS ACTUATION DURING STARTUP.
EVENT DATE: 051684 REPORT DATE: 061584 NSSS: CE TYPE: PWR

(NSIC 190548) DURING PLANT HEATUP AND PRESSURIZATION FOLLOWING THE 1984 REFUELING OUTAGE PER PLANT OPERATING INSTRUCTION OI-RC-2B, AN UNPLANNED ACTUATION OF THE VENTILATION ISOLATION ACTUATION SYSTEM (VIAS) OCCURRED AT APPROX 1210. THE VIAS ACTUATION (AN ENGINEERED SAFETY FEATURE (ESF)) WAS INITIATED BY THE CONTAINMENT RADIATION PROCESS MONITOR, RM-050. THE ACTUATION WAS CAUSED BY A HIGH AIRBORNE ACTIVITY IN CONTAINMENT RESULTING FROM THE LIFTING OF THE REACTOR COOLANT DRAIN TANK (RCDT) RELIEF VALVE WHICH DISCHARGES TO A FLOOR DRAIN. THE RCDT FILLED AND ITS RELIEF VALVE LIFTED AS THE RESULT OF BACK LEAKAGE PAST ONE OR MORE REACTOR COOLANT SYSTEM (RCS)/SAFETY INJECTION INTERFACE CHECK VALVES AS RCS PRESSURE WAS BEING INCREASED. DURING PLANT STARTUP, IT IS NOT UNCOMMON FOR THE RCS/SAFETY INJECTION INTERFACE CHECK VALVES TO LEAK BY UNTIL RCS PRESSURE IS HIGH ENOUGH TO SEAT THEM TIGHTLY. NO APPARENT EQUIPMENT MALFUNCTIONS, OPERATOR ERRORS, OR PROCEDURE VIOLATIONS WERE IDENTIFIED. ON MAY 16, 1984, A VIAS TRIP WAS INITIATED. THE VIAS TRIP FUNCTION IS CONSIDERED PART OF THE ENGINEERED SAFETY FEATURE (ESF) SYSTEM.

[85] FT. CALHOUN 1 DOCKET 50-285 LER 84-006
VENTILATION ISOLATION ACTUATION SYSTEM GIVES FALSE SIGNAL.
EVENT DATE: 052284 REPORT DATE: 062184 NSSS: CE TYPE: PWR

(NSIC 190547) AN UNPLANNED ACTUATION OF THE VENTILATION ISOLATION ACTUATION

SYSTEM (VIAS) OCCURRED AT 0931 ON MAY 22, 1984, DURING ROUTINE WEEKLY REPLACEMENT OF AN IODINE-COLLECTOR CARTRIDGE ON RM-060, THE VENTILATION DISCHARGE DUCT IODINE MONITOR. THE VIAS ACTUATION (AN ENGINEERED SAFETY FEATURE (ESF)) WAS APPARENTLY SPURIOUS, SINCE NO EQUIPMENT MALFUNCTIONS, OPERATOR ERRORS OR PROCEDURE VIOLATIONS WERE NOTED. THE ALARM CLEARED AND VIAS LOCKOUT RESET ONCE THE FILTER WAS REPLACED AND RM-060 WAS RETURNED TO SERVICE. THE IODINE-COLLECTOR CARTRIDGE SHOWED NO IODINE ACCUMULATION AND NO FURTHER ALARMS OCCURRED. TO PREVENT FUTURE SPURIOUS VIAS ACTUATIONS OF THIS NATURE, A PROCEDURE CHANGE REQUIRING RM-060 TO BE TAKEN OUT OF SERVICE DURING FILTER REPLACEMENT WILL BE INVESTIGATED.

[86] FT. CALHOUN 1 DOCKET 50-285 LER 84-009
 TESTING OF CONAX ELECTRICAL PENETRATIONS REVEALS FAILED PENETRATION ASSEMBLIES.
 EVENT DATE: 062284 REPORT DATE: 072384 NSSS: CE TYPE: PWR
 VENDOR: CONAX CORP.

(NSIC 190795) THE OMAHA PUBLIC POWER DISTRICT HAS BEEN CONDUCTING SEQUENTIAL ENVIRONMENTAL QUALIFICATION TESTING OF THE ELECTRICAL PENETRATION ASSEMBLIES IN ORDER TO FULFILL THE REQUIREMENTS OF 10 CFR 50.49. THE DISTRICT WAS NOTIFIED BY THE TEST LABORATORY THAT DURING THE LOCA/MSLB PROFILE TESTING, THE PENETRATION ASSEMBLIES HAD FAILED. THE LOCA/MSLB TESTING SEQUENTIALLY FOLLOWS THE IRRADIATION TESTING. THE LOCA/MSLB TESTING INCLUDES STRESS PARAMETERS OF STEAM, PRESSURE, AND CHEMICAL SPRAY. INSPECTION OF PENETRATION ASSEMBLIES REVEALED THAT DURING THE LOCA/MSLB TEST THE TEFLON INSULATION ON THE LEAD WIRES HAD BECOME BRITTLE AND HAD CRACKED. IT HAS BEEN CONCLUDED THAT THIS FAILURE WOULD ONLY OCCUR AFTER ACCUMULATION OF A HIGH RADIATION DOSE IN CONJUNCTION WITH THE PRESSURE/STEAM ENVIRONMENT. THESE CONDITIONS MAKE FAILURE AT THE ONSET OF THE ACCIDENT EXTREMELY UNLIKELY. THUS FAR, THE DISTRICT HAS MODIFIED SELECTED PENETRATION ASSEMBLIES TO PRECLUDE THIS SORT OF FAILURE. THOSE PENETRATIONS WHICH WOULD NOT COMPLETE THEIR ACCIDENT FUNCTION PRIOR TO ONSET OF THE HIGH RADIATION DOSE ASSOCIATED WITH A LARGE BREAK LOCA, THOSE PENETRATIONS WHICH PERFORM A LBLOCA-MITIGATING FUNCTION, OR THOSE REQUIRED FOR POST-ACCIDENT MONITORING OR LONG TERM CORE COOLING HAVE BEEN MODIFIED TO ALLEVIATE THE CONCERN. THE REMAINING PENETRATIONS WILL BE QUALIFIED BY NOV 1985, PENDING CONCURRENCE OF THE NRC IN ESTABLISHING A NEW EXTENSION DATE.

[87] GINNA DOCKET 50-244 LER 84-006
 AUTOMATIC ACTUATION OF AN ENGINEERED SAFETY FEATURE (ESF).
 EVENT DATE: 052284 REPORT DATE: 062284 NSSS: WE TYPE: PWR

(NSIC 190506) ON MAY 22, 1984, DURING REACTOR COOLANT SYSTEM (RCS) HEATUP TO HOT SHUTDOWN FROM COLD SHUTDOWN, THE AUTOMATIC SAFETY INJECTION (S.I.) WAS ACTUATED DUE TO LOW STEAM LINE PRESSURE WHILE THE PRIMARY SYSTEM PRESSURE WAS > 2000 PSIG WITH AUTO UNBLOCK OF S.I. PRESENT. WHEN THE REASON FOR THE AUTOMATIC ACTUATION WAS DIAGNOSED AND VERIFICATION WAS MADE THAT ALL THE S.I. EQUIPMENT AND SYSTEMS WORKED PROPERLY, S.I. WAS RESET, TERMINATED, AND THEN REALIGNED TO NORMAL CONDITIONS. RCS PRESSURE WAS THEN REDUCED TO 1750 PSIG. THE AUTO S.I. WAS CAUSED BY OPERATOR ERROR, COMPOUNDED BY SOME PROCEDURAL INADEQUACY.

[88] GRAND GULF 1 DOCKET 50-416 LER 82-172 REV 2
 UPDATE ON PENETRATION OPENED FOR MAINTENANCE ACTIVITY.
 EVENT DATE: 121082 REPORT DATE: 071283 NSSS: GE TYPE: BWR

(NSIC 19078) ON DEC 10, 1982, PENETRATION AE154C IN THE AUX BLDG WAS OPENED TO PERFORM A PLANNED MAINTENANCE ACTIVITY. THIS PENETRATION IS A FIRE RATED ASSEMBLY REQUIRED BY TECH SPEC 3.7.7. THIS IS A SPECIAL RPT PURSUANT TO TECH SPEC 3.7.7A. THE PENETRATION WAS OPENED DURING A PLANNED MAINTENANCE ACTIVITY TO PULL CABLES. AN LCO WAS INITIATED AND AN HOURLY FIRE WATCH WAS ESTABLISHED.

WORK IS CURRENTLY IN PROGRESS TO RESEAL THE PENETRATION ASSEMBLY AND IS EXPECTED TO BE COMPLETED BY SEP 10, 1983. THIS IS A FINAL REPORT.

[89] GRAND GULF 1 DOCKET 50-416 LER 83-098
 DIESEL GENERATOR FAILS TO START DURING TESTS.
 EVENT DATE: 071883 REPORT DATE: 081683 NSSS: GE TYPE: BWR

(NSIC 190701) ON JULY 18, 1983, DURING PERFORMANCE OF THE DIV. II STANDBY DG AIR START RECEIVER CAPACITY TEST (18 MO. FUNCTIONAL), AIR START SOLENOID VALVE F508C FAILED TO OPERATE RESULTING IN THE DIESEL'S FAILURE TO START. THREE AIR LINES WHICH NORMALLY SUPPLY AIR TO THE AIR START HEADER WERE MANUALLY ISOLATED TO OBTAIN ISI DATA CONCURRENTLY WITH THE TEST. THIS LEFT VALVE F508C THE ONLY PATHWAY FOR AIR SUPPLY FROM THE RECEIVERS TO THE CYLINDERS. THIS IS REPORTED PURSUANT TO TECH SPEC 4.8.1.1.3. SOLENOID VALVE F508C FAILED DUE TO AN OPEN CIRCUIT COIL ON THE SOLENOID. THE VALVE WAS REPLACED. THE THREE SOLENOID VALVES ON THE OTHER AIR SUPPLY LINES WERE CHECKED AND FOUND OPERATIVE. AN LCO WAS ENTERED PER TECH SPEC 3.8.1.2 DUE TO DIV. I ALSO BEING INOPERABLE. THIS IS SUBMITTED AS A FINAL REPORT.

[90] GRAND GULF 1 DOCKET 50-416 LER 83-166 REV 2
 UPDATE ON 50 DEFECTIVE ESF TRIP DEVICES.
 EVENT DATE: 102183 REPORT DATE: 042384 NSSS: GE TYPE: BWR
 VENDOR: BROWN BOVERI

(NSIC 190502) ON OCTOBER 21, 1983, SSW COOLING FAN C003D TRIPPED BREAKER 52-16506 ON SEVERAL START ATTEMPTS. SSW "B" WAS DECLARED INOPERABLE AND AN LCO WAS ENTERED PURSUANT TO TECH SPEC 3.7.1.3 AND 3.7.1.1. THIS ALSO RESULTED IN SHUTDOWN COOLING LOOP "B" BEING DECLARED INOPERABLE AT 0430 HOURS ON OCTOBER 22 WHEN THE REACTOR PRESSURE WAS LOWERED TO 135 PSIG IN MODE 3. THE REACTOR WATER CLEANUP SYSTEM WAS DEMONSTRATED AS AN ALTERNATE METHOD OF DECAY HEAT REMOVAL IN ACCORDANCE WITH TECH SPEC 3.4.9.1. THE ITE SOLID STATE TRIP DEVICE INSTALLED ON THE BREAKER WAS DEFECTIVE. THE MANUFACTURER INCORRECTLY INSTALLED A 30VDC 22UF CAPACITOR IN LIEU OF A REQUIRED 50VDC OR 100VDC CAPACITOR. THE DEFECTIVE TRIP UNIT WAS REPLACED WITH A PROPERLY ASSEMBLED TRIP UNIT AND THE BREAKER WAS RETURNED TO SERVICE. THE NONCONFORMANCE WAS REPORTED PURSUANT TO 10CFR21 AS PRD-84/01.

[91] GRAND GULF 1 DOCKET 50-416 LER 83-185 REV 2
 UPDATE ON SERVICE TRANSFORMER TRIP.
 EVENT DATE: 120183 REPORT DATE: 053084 NSSS: GE TYPE: BWR

(NSIC 190503) ON DECEMBER 1, 1983 AT 1420 HOURS WHILE IN COLD SHUTDOWN, BREAKER 552-2105 FROM SERVICE TRANSFORMER 21 TRIPPED CAUSING A LOSS OF POWER TO THE DIVISION 1 ENGINEERED SAFETY FEATURES BUS AND ALL BALANCE OF PLANT LOADS. THIS RESULTED IN A REACTOR SCRAM SIGNAL, A LOSS OF REACTOR PROTECTION SYSTEM BUSES, LOSS OF SHUTDOWN COOLING, REACTOR WATER CLEANUP ISOLATION, CONTAINMENT/AUX. BLDG. ISOLATIONS, CONTROL ROD DRIVE "A" PUMP TRIP, STANDBY GAS TREATMENT SYSTEM INITIATION, CONTROL ROOM SPAU INITIATION, AND AN AUTO START OF D/G 11. THE DIESEL GENERATOR WAS PARALLELED TO TRANSFORMER 11 TO RESTORE NORMAL POWER. TWO WIRES SHORTED IN THE BREAKER HANDSWITCH CAUSING THE TRIP. THE WIRES WERE PINCHED BETWEEN A PLATE AND A COVER BOX MOUNTED INSIDE PANEL 1H13-P807. THE WIRES AND BOX HAVE BEEN TEMPORARILY ALTERED TO PREVENT PINCHING. DESIGN CHANGE 84/3001 WILL REMOVE THE PLATE AS A FINAL RESOLUTION.

[92] GRAND GULF 1 DOCKET 50-416 LER 84-020 REV 1
 UPDATE ON REACTOR WATER CLEANUP SYSTEM ISOLATION FIVE TIMES.
 EVENT DATE: 042384 REPORT DATE: 060684 NSSS: GE TYPE: BWR

(NSIC 190759) ON APR 23, 24 AND MAY 14, 1984, DURING STARTUP, FIVE REACTOR WATER CLEANUP SYSTEM (RWCU) ISOLATIONS OCCURRED DUE TO FEEDWATER FLOW OSCILLATIONS. THE FLOW OSCILLATIONS CAUSED THE RWCU LEAK DETECTION SYSTEM TO SENSE A DIFFERENTIAL FLOW INDICATIVE OF A LEAK AND THIS SIGNALLED THE RWCU CONTAINMENT ISOLATION VALVES TO CLOSE.

[93] GRAND GULF 1 DOCKET 50-416 LER 84-031
 INADEQUATE WATER SUPPLY FOR ULTIMATE HEAT SINK.
 EVENT DATE: 060184 REPORT DATE: 062884 NSSS: GE TYPE: BWR

(NSIC 190636) PER THE GGNS FSAR, THE COMBINED CAPACITY OF THE SSW BASINS WAS DETERMINED ADEQUATE TO PROVIDE SUFFICIENT COOLING FOR AT LEAST 30 DAYS WITHOUT MAKEUP, TO MITIGATE THE EFFECTS OF AN ACCIDENT IN ONE UNIT, AND SIMULTANEOUSLY PERMIT SAFE SHUTDOWN OF THE OTHER UNIT. AS REPORTED TO THE NRC IN AECM-82/232, DATED MAY 24, 1982, THE MINIMUM USABLE SSW BASIN WATER LEVEL WAS SET AT 107'0" AS A RESULT OF A DEFICIENCY INVOLVING INADEQUATE SSW SYSTEM FLOW THROUGH SOME COMPONENT LOOPS DUE TO HIGHER THAN ANTICIPATED FRICTIONAL PRESSURE DROPS. OUR ARCHITECT ENGINEER (BECHTEL POWER CORPORATION) RECENTLY DETERMINED THAT FOR OPERATION OF UNIT 1 ALONE, THE COMBINED CAPACITY OF THE TWO BASINS ABOVE ELEVATION 107'0" IS ADEQUATE TO PROVIDE A 30 DAY INVENTORY FOR POST-LOCA OPERATION. HOWEVER, IN THE EVENT OF A LOCA COINCIDENT WITH A LOSS OF OFFSITE POWER AND A SINGLE ACTIVE FAILURE (LOSS OF A DIVISION), THE ABILITY TO TRANSFER WATER TO THE OPERATING BASIN FROM THE BASIN ASSOCIATED WITH THE FAILED DIVISION IS LOST. THUS, OPERATION OF THE ULTIMATE HEAT SINK (SSW) WITHOUT EXTERNAL MAKEUP WOULD BE REDUCED TO LESS THAN 30 DAYS WHICH IS CONTRARY TO FSAR CHAPTER 9.

[94] HATCH 1 DOCKET 50-321 LER 84-007
 REACTOR SCRAM DUE TO TURBINE STOP VALVE FAST CLOSURE DURING TESTING.
 EVENT DATE: 060484 REPORT DATE: 070384 NSSS: GE TYPE: BWR
 VENDOR: BALKSDALE VALVE COMPANY

(NSIC 190509) AT APPROXIMATELY 0104 CDT ON 6/4/84, UNIT 1 HAD DECREASED LOAD FROM 764 MWE TO 730 MWE IN ORDER TO PERFORM THE "MAIN TURBINE DAILY TEST" PROCEDURE (HNP-1-1051). WHEN PLANT PERSONNEL RELEASED THE TEST BUTTON FOR THE MAIN TURBINE NUMBER 2 COMBINED INTERMEDIATE VALVE (I.E. ONE VALVE BODY WITH TWO STEMS, ONE STLM "AN INTERMEDIATE STOP VALVE," THE OTHER STEM "A CONTROL INTERCEPT VALVE") A SCRAM DUE TO TURBINE STOP VALVE FAST CLOSURE REACTOR SCRAM OCCURRED AT APPROXIMATELY 0121 CDT. THE CAUSE OF THIS EVENT WAS POSTULATED AS BEING DUE TO THE DISC DUMP NOT COMPLETELY SEATING ON THE MAIN TURBINE NUMBER 2 COMBINED INTERMEDIATE VALVE WHEN THE TEST BUTTON WAS RELEASED.

[95] HATCH 1 DOCKET 50-321 LER 84-011
 HPCI TURBINE CONTROL FAILURE.
 EVENT DATE: 062084 REPORT DATE: 071984 NSSS: GE TYPE: BWR
 VENDOR: TERRY STEAM TURBINE COMPANY
 WOODWARD GOVERNOR COMPANY

(NSIC 190728) ON 06-20-84, AFTER REPAIR OF VALVE 1E41-F001 THE HPCI TURBINE WAS UNSUCCESSFULLY TESTED PER THE "HPCI PUMP OPERABILITY" PROCEDURE (HNP-1-3303). AFTER AN INVESTIGATION IT WAS DETERMINED THAT THIS EVENT WAS CAUSED BY EMULSIFICATION OF HPCI TURBINE LUBRICATING OIL (WHEN WATER ENTERED THE LUBRICATING SYSTEM), AND A BROKEN-BALL ON THE TAPPET AND BALL ASSEMBLY PART OF THE MECHANICAL-HYDRAULIC OVERSPEED TRIP MECHANISM. HPCI WAS SATISFACTORILY FUNCTIONALLY TESTED PER HNP-1-3303 AND RETURNED TO SERVICE ON 06-23-84.

[96] HATCH 2 DOCKET 50-366 LER 84-011
 MISSED SURVEILLANCE OF FIRE HOSE STATION.
 EVENT DATE: 060284 REPORT DATE: 062984 NSSS: GE TYPE: BWR

(NSIC 190630) ON 6/2/84, IT WAS DISCOVERED THAT THE REQUIRED MONTHLY SURVEILLANCE HAD NOT BEEN PERFORMED ON FIRE HOSE STATION HC-30. TECH SPECS SECTION 4.7.6.4.A REQUIRES THAT EACH OF THE FIRE HOSE STATIONS IN TABLE 3.7.6.4-1 SHALL BE DEMONSTRATED OPERABLE AT LEAST ONCE PER 31 DAYS BY VISUAL INSPECTION OF THE STATION TO ASSURE ALL REQUIRED EQUIPMENT IS AT THE STATION. THE LATEST ALLOWED DATE (I.E., THE DUE DATE PLUS THE MAXIMUM ALLOWABLE EXTENSION NOT TO EXCEED 25% OF THE SURVEILLANCE INTERVAL PER TECH SPECS SECTION 4.0.2.A.) FOR SECTION E OF SURVEILLANCE PROCEDURE (HNP-2-3359-E) FOR FIRE HOSE STATION HC-30 WAS 5/18/84. THUS, THE REQUIREMENTS OF TECH SPECS SECTION 4.7.6.4.A. WERE NOT MET. THE CAUSE OF THIS EVENT IS PERSONNEL ERROR DUE TO MISINTERPRETATION OF THE "TECH SPECS SURVEILLANCE PROGRAM" PROCEDURE (HNP-831). HNP-831 WILL BE REVISED TO PREVENT RECURRENCE OF THIS EVENT. ON 6/2/84 WHEN THIS EVENT WAS DISCOVERED, FIRE HOSE STATION HC-30 WAS SATISFACTORILY INSPECTED PER THE REQUIREMENTS OF SECTION E OF THE "FIRE HOSE STATION - SAFETY-RELATED AREAS SURVEILLANCE PROCEDURE (HNP-2-3359-E).

[97] INDIAN POINT 2 DOCKET 50-247 LER 83-026 REV 1
 UPDATE ON CONTAINMENT COOLER FILTER VALVE FAILING TO OPEN.
 EVENT DATE: 070683 REPORT DATE: 032984 NSSS: WE TYPE: PWR
 VENDOR: ASCO VALVES

(NSIC 190522) DURING NORMAL OPERATION, THE CHARCOAL COMPARTMENT OUTLET VALVE FCV-22-4 ON NO. 22 REACTOR CONTAINMENT FAN COOLER-FILTER UNIT (ONE OF FIVE INSTALLED UNITS) DID NOT OPEN WHEN TESTED (TECH SPEC 3.3.B.2.A). THE CHARCOAL FILTERS ARE INTENDED FOR USE DURING AN INCIDENT TO REMOVE RADIOACTIVE IODINE IN THE CONTAINMENT ATMOSPHERE. THE VALVE WAS PLACED IN THE OPEN (INCIDENT) POSITION UNTIL REPAIRS WERE COMPLETED. THERE WERE NO PREVIOUS EVENTS. THE PNEUMATIC CONTROL PIPING FOR VALVE FCV-22-4 WAS FOUND TO BE INSTALLED INCORRECTLY. THE COMPONENTS WERE REINSTALLED CORRECTLY AND FCV-22-4 WAS SATISFACTORILY TESTED AND RETURNED TO SERVICE. CAUSE, DESCRIPTION AND CORRECTIVE ACTIONS ARE DESCRIBED.

[98] INDIAN POINT 2 DOCKET 50-247 LER 84-006
 ISOLATION VALVE SEAL WATER SYSTEM LEAKAGE.
 EVENT DATE: 061184 REPORT DATE: 071184 NSSS: WE TYPE: PWR

(NSIC 190592) ON JUN 11, 1984 WHILE THE PLANT WAS SHUT DOWN FOR REFUELING, ROUTINE SURVEILLANCE TESTS WERE BEING CONDUCTED. DURING SURVEILLANCE OF THE ISOLATION VALVE SEAL WATER SYSTEM, IT WAS REPORTED THAT THE OVERALL SYSTEM LEAKAGE WAS IN EXCESS OF ACCEPTANCE CRITERIA. THIS WAS ATTRIBUTED TO EXCESSIVE LEAKAGE THROUGH THE ISOLATION VALVES FOR THE AUXILIARY STEAM SUPPLY LINE AND CONDENSATE RETURN LINE.

[99] INDIAN POINT 3 DOCKET 50-286 LER 84-008
 UNIT TRIP DUE TO CLOSURE OF MSIV.
 EVENT DATE: 052984 REPORT DATE: 062684 NSSS: WE TYPE: PWR
 VENDOR: LAURENCE, R.G. CO., INC.

(NSIC 190604) ON 29 MAY 1984, WITH THE REACTOR AT 100% POWER, A TURBINE TRIP WAS INITIATED BY THE CLOSURE OF LOOP NO. 33 MAIN STEAM ISOLATION VALVE (MSIV). THE REACTOR TRIPPED AUTOMATICALLY UPON RECEIPT OF THE TURBINE TRIP SIGNAL. INVESTIGATION DETERMINED THAT THE MSIV CLOSURE WAS DUE TO AN INADVERTENT OPENING OF ONE OF ITS ASSOCIATED INSTRUMENT AIR TRIP SOLENOID VENT VALVES. THE MSIV WAS RESET AND RETURNED TO SERVICE.

[100] INDIAN POINT 3 DOCKET 50-286 LER 84-009
 UNIT TRIP DUE TO SG LOW LEVEL.
 EVENT DATE: 061684 REPORT DATE: 071384 NSSS: WE TYPE: PWR
 VENDOR: COPES-VULCAN, INC.

(NSIC 190605) ON JUN 16, 1984, A REACTOR TRIP AND SUBSEQUENT UNIT TRIP WERE INITIATED AUTOMATICALLY ON A LOW LEVEL IN NO. 33 STEAM GENERATOR. REACTOR POWER WAS 100% AT THE TIME OF THE TRIP. INVESTIGATION DETERMINED THAT THE MAIN FEEDWATER REGULATING VALVE FOR NO. 33 SG HAD INADVERTENTLY CLOSED DUE TO THE FAILURE OF THE VALVE OPERATOR'S YOKE. THE VALVE OPERATOR WAS REPLACED, AND THE UNIT WAS RETURNED TO SERVICE.

[101] INDIAN POINT 3 DOCKET 50-286 LER 84-010
 BATTERY LOSS CONCURRENT WITH LOCA COULD VIOLATE SINGLE FAILURE CRITERIA.
 EVENT DATE: 071084 REPORT DATE: 071684 NSSS: WE TYPE: PWR

(NSIC 190796) FOLLOWING PREVIOUS DISCUSSIONS WITH THE NRC AND BROOKHAVEN NATIONAL LAB, A PROBLEM WAS POSTULATED ON JULY 10, 1984 CONCERNING THE RESIDUAL HEAT REMOVAL SYSTEM. DURING OUR EVALUATION, NYPA RECOGNIZED THAT A POSTULATED LOSS OF STATION BATTERY 32 WITH A CONCURRENT LOSS OF COOLANT ACCIDENT MAY PREVENT THE AUTOMATIC STARTING OF SOME REDUNDANT SAFEGUARDS EQUIPMENT AND THUS NOT MEET SINGLE FAILURE CRITERIA REQUIRED IN GENERAL DESIGN CRITERIA (GDC 35). A CHANGE TO PLANT EQUIPMENT WAS DEVELOPED AND INSTALLED IMMEDIATELY TO ALLEVIATE THIS CONCERN. THE NRC WAS NOTIFIED OF A POTENTIAL UNREVIEWED SAFETY QUESTION. SUBSEQUENTLY NYPA DETERMINED THAT THE PROBLEM WAS AN UNREVIEWED SAFETY QUESTION. HOWEVER, THE INSTALLED CHANGE RELIEVED THIS CONCERN AND BROUGHT THE PLANT INTO COMPLIANCE WITH GDC 35. THIS LER ALSO SERVES TO SATISFY THE REQUIREMENTS OF 10CFR21.

[102] INDIAN POINT 3 DOCKET 50-286 LER 84-011
 UNIT TRIP DUE TO ELECTRICAL FEEDER INSULATOR FAILURE.
 EVENT DATE: 071284 REPORT DATE: 072584 NSSS: WE TYPE: PWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190662) ON JULY 12, 1984, A TURBINE GENERATOR TRIP AND SUBSEQUENT REACTOR TRIP WERE INITIATED AUTOMATICALLY AS A RESULT OF THE FAILURE OF AN INSULATOR ON A 345 KV FEEDER. REACTOR POWER WAS 100% AT THE TIME OF THE TRIP. DEPOSITS FOUND ON THE INSULATOR MAY HAVE REDUCED ITS INSULATING CAPACITY, ALLOWING THE FEEDER TO SHORT TO GROUND. THE INSULATOR WAS REPLACED AND THE UNIT RETURNED TO SERVICE.

[103] KEWAUNEE DOCKET 50-305 LER 84-012
 INADVERTENT INITIATION OF THE AUXILIARY BUILDING SPECIAL VENT.
 EVENT DATE: 062884 REPORT DATE: 072784 NSSS: WE TYPE: PWR

(NSIC 190722) WITH THE PLANT AT 100% POWER OPERATION BOTH TRAINS OF THE AUXILIARY BLDG SPECIAL VENT SYSTEM (ABSV) WERE INADVERTENTLY STARTED DURING THE PERFORMANCE OF AN I&C PROCEDURE TO PLACE TRAIN B OF THE STEAM EXCLUSION SYSTEM BACK IN SERVICE. THE I&C PERSON MISTAKENLY REQUESTED THE CONTROL ROOM OPERATOR TO DEPRESS THE 'ZONE SV AREA STEAM EXCLUSION TRAIN B' PUSHBUTTON INSTEAD OF THE 'STEAM EXCLUSION TRAIN B RESET' PUSHBUTTON. AS DESIGNED, THIS ACTION STARTED BOTH TRAINS OF ABSV. MINS INTO THE EVENT THE ERROR WAS RECOGNIZED, BOTH TRAINS WERE SECURED AND REALIGNED FOR NORMAL PLANT OPERATING CONDITIONS. THE PERSONNEL INVOLVED WERE MADE AWARE OF THEIR ERROR. A COPY OF THIS INCIDENT HAS BEEN CIRCULATED TO OPERATIONS, I&C AND THE TRAINING GROUP FOR THEIR INFORMATION. NO FURTHER ACTION IS REQUIRED.

[104] KEWAUNEE DOCKET 50-305 LER 84-013
 UNPLANNED START OF 'B' TRAIN AUXILIARY BLDG SPECIAL VENTILATION SYSTEM.
 EVENT DATE: 070284 REPORT DATE: 080184 NSSS: WE TYPE: PWR
 VENDOR: JOHNSON DIVISION, U.O.P.

(NSIC 190723) ON JUL 2, 1984, WITH THE PLANT AT FULL POWER OPERATION, THE AUXILIARY OPERATOR DISCOVERED THAT TRAIN 'B' OF THE AUX BLDG SPECIAL VENTILATION SYSTEM (ABSV) WAS RUNNING FOR NO APPARENT REASON. WHEN THE CONTROL ROOM OPERATOR ATTEMPTED TO SECURE THE SYSTEM HE DISCOVERED A BLOWN FUSE FOR THE SOLENOID VALVE ON THE ZONE SV EXHAUST FILTER 1B INLET DAMPER. INVESTIGATION REVEALED THAT THE COIL ON THE SOLENOID VALVE HAD BURNT OUT FAILING IT IN THE CLOSED POSITION WHICH AUTOMATICALLY OPENED THE DAMPER AND STARTED THE 1B ZONE SV EXHAUST FAN. DUE TO SIMILAR FAILURES OF THIS MODEL OF JOHNSON SOLENOID VALVES, A DESIGN CHANGE HAD BEEN IN PLACE TO REPLACE THESE VALVES AS THEY FAIL WITH ASCO'S. ONCE COMPLETED, THIS DESIGN CHANGE SHOULD PREVENT A RECURRENCE OF THIS EVENT.

[105] KEWAUNEE DOCKET 50-305 LER 84-014
 REACTOR TRIPS DUE TO LOSS OF POWER ON INSTRUMENT BUS.
 EVENT DATE: 070384 REPORT DATE: 080284 NSSS: WE TYPE: PWR

(NSIC 190724) AT 1832 ON 7/3/84 A LOSS OF POWER OCCURRED ON INSTRUMENT BUS IV, THE YELLOW PROTECTION CHANNEL. THIS RESULTED IN A PARTIAL LOSS OF INSTRUMENTATION, VARIOUS ALARMS AND LEVEL CONTROL PROBLEMS ON THE STEAM GENERATORS. THE OPERATORS TOOK MANUAL CONTROL OF THE STEAM GENERATORS, BUT COULD NOT PREVENT A REACTOR TRIP FROM LO S/G LEVEL COINCIDENT WITH STEAM FLOW/FEED FLOW MISMATCH ON S/G 'B,' WHICH OCCURRED APPROX 3 MINS AFTER THE POWER FAILURE. THE REACTOR TRIP PROCEDURE WAS FOLLOWED AND A 'POST TRIP REVIEW' WAS PERFORMED. INVESTIGATION ON JUL 5 FOUND A LOOSE CONNECTION (CON) ON THE LINE SIDE OF THE AC OUTPUT BREAKER (52) COMPRESSION TYPE CONNECTOR. IT IS FELT THAT VIBRATION OVER A PERIOD OF TIME CAUSED THIS CONNECTION TO LOOSEN ALLOWING THE TWO WIRES AT THIS POINT TO MOMENTARILY SEPARATE. THIS MOMENTARY SEPARATION CAUSED THE INSTRUMENT BUS VOLTAGE TO DROP TO APPROX 100 VOLTS; UPON REMAKE OF THE CONNECTION INSTRUMENT BUS VOLTAGE RETURNED TO NORMAL 118 VOLTS AC. THIS CONDITION WAS DUPLICATED BY PLANT ELECTRICIANS, THUS VERIFYING THE CAUSE OF A MOMENTARY LOW VOLTAGE ON INSTRUMENT BUS IV. PREVENTATIVE MAINTENANCE PROCEDURES ON DC EQUIPMENT HAVE BEEN REVISED TO INCLUDE THE INSTRUMENT BUS INVERTERS; THIS SHOULD BE ADEQUATE TO PREVENT A RECURRENCE.

[106] LA SALLE 1 DOCKET 50-373 LER 82-176 REV 2
 UPDATE ON RHR PUMP FAILS.
 EVENT DATE: 122882 REPORT DATE: 052384 NSSS: GE TYPE: BWR
 VENDOR: INGERSOLL-RAND CO.

(NSIC 190576) ON 12-28-82 AT 2030 HRS, WHILE THE RHR B SYSTEM WAS IN THE SUPP. POOL COOLING MODE, EXCESSIVE VIBRATION WAS NOTED ON THE RHR 1B PUMP SHAFT. THE PUMP WAS IMMEDIATELY SHUT DOWN AND DECLARED INOPERATIVE. THE REACTOR WAS IN THE RUN MODE PRODUCING 1428 MWT; 330 MWE. PURSUANT TO TECH SPEC 3.6.2.3 REACTOR SHUTDOWN COMMENCED WITHIN 72 HRS OF THE DISCOVERY FOR MAJOR REPAIRS TO RHR B PUMP. THE HPCS, LPCS, RHR A AND RHR C SYSTEMS WERE OPERABLE IN THE STANDBY MODE FOR VESSEL INJECTION. UPON DISASSEMBLY, THE BEARINGS HAD SIGNS OF EXCESSIVE WEAR PER INGERSOLL RAND, THE PUMP MANUFACTURER, RECOMMENDED TOLERANCES. MEASUREMENTS ON THE UPPER PUMP COLUMN INDICATED MISALIGNMENT. THE BEARINGS WERE REPLACED AND THE UPPER COLUMN WAS MACHINED TO ALLOW TOLERANCES. INSTRUMENTATION WAS INSTALLED ON THE PUMP CASING TO DETERMINE THE CAUSE OF THE PREVIOUS FAILURE.

[107] LA SALLE 1 DOCKET 50-373 LER 83-112 REV 1
 UPDATE ON CONTROL ROOM VENTILATION LOST.
 EVENT DATE: 091483 REPORT DATE: 052984 NSSS: GE TYPE: BWR

(NSIC 190700) DURING THE PERFORMANCE OF U-2 DIV. 1 EPR TEST ON SEPT 14, 1983 AT 0130 HRS, BYPASS DAMPER OVC13YA OF THE A TRAIN CHARCOAL ADSORBER FAILED IN THE SHUT POSITION CAUSING A TEMPORARY LOSS OF CONTROL ROOM VENTILATION. SINCE THE DAMPER FAILED IN THE SAFE CONDITION, AND THE OTHER CONTROL ROOM VENTILATION TRAIN WAS STARTED WITHIN A MIN, THE CONSEQUENCES OF THE EVENT WERE MINIMAL. THE PISTON CYLINDER UPPER SEAL IN THIS ELECTROHYDRAULIC DAMPER ACTUATOR HAD DEGRADED. THIS DEPRESSURIZED THE CYLINDER ALLOWING THE SPRING TO BRING THE DAMPER TO ITS FAILED CLOSED POSITION. THE ACTUATOR WAS SENT TO THE MANUFACTURER WHO REPLACED ALL SEALS. THE ACTUATOR WAS THEN REPLACED AND CYCLED SATISFACTORILY.

[108] LA SALLE 1 DOCKET 50-373 LER 84-002
 LOSS OF FEEDWATER CAUSED A LOW REACTOR WATER LEVEL SCRAM.
 EVENT DATE: 010684 REPORT DATE: 020384 NSSS: GE TYPE: BWR
 VENDOR: AMETAK INSTRUMENT AND CONTROLS

(NSIC 189286) UNIT 1 SCRAMMED ON LOW WATER LEVEL (+12.5") BECAUSE THE 1A TURBINE DRIVEN REACTOR FEED PUMP TRIPPED ON HIGH SEAL TEMPERATURE AND SUBSEQUENT OPERATION OF THE FEED REG. VALVE WAS PREVENTED BECAUSE THE CONTROL SIGNAL TO THE VALVE WAS LOST. REACTOR WATER DECREASED TO -40" BEFORE RCIC BEGAN TO RECOVER LEVEL--RCIC WAS MANUALLY STARTED. WATER LEVEL WAS CONTROLLED WITH RCIC UNTIL LOCAL MANUAL CONTROL OF THE FEED REG. VALVE WAS ESTABLISHED. NO ECCS OR PCIS ACTUATIONS WERE REQUIRED DURING THE EVENT AND CONTROL OF WATER LEVEL AND PRESSURE WAS QUICKLY ESTABLISHED. THE HIGH SEAL TEMPERATURE TRIP OF 1A TDRFP RESULTED FROM A FAILED FLOW CONTROLLER WHICH REGULATED SEAL WATER TEMPERATURE. THE FAILED CONTROLLER CAUSED INADEQUATE SEAL COOLING FLOW AND THE SUBSEQUENT HIGH TEMPERATURE AND TRIP. THE CONTROLLER WAS REPLACED. TROUBLESHOOTING OF THE CONTROL SIGNAL FOR THE FRV DID NOT LOCATE ANY FAILURES IN THE REACTOR WATER LEVEL CONTROL SYSTEM. THE LEVEL CONTROL SYSTEM AND FRV PERFORMED PROPERLY IN SUBSEQUENT TESTING. NO CORRECTIVE ACTION WAS REQUIRED.

[109] LA SALLE 1 DOCKET 50-373 LER 84-005 REV 1
 UPDATE ON REACTOR SCRAM/LOSS OF MAIN CONDENSER VACUUM.
 EVENT DATE: 011684 REPORT DATE: 053184 NSSS: GE TYPE: BWR
 VENDOR: TEMP FLEX DIV. ASSOCIATED PIPING

(NSIC 190560) ON 1-16-84 AT 1522 THE REACTOR PROTECTION SYSTEM INITIATED A REACTOR SCRAM WHEN THE TURBINE GENERATOR TRIPPED DUE TO LOW VACUUM. THE REACTOR WAS MANUALLY ISOLATED FROM THE CONDENSER BECAUSE VACUUM DETERIORATED VERY RAPIDLY. PRESSURE INCREASED TO ABOUT 1050 PSIG AT WHICH POINT A SAFETY RELIEF VALVE (SRV) LIFTED IN THE PRESSURE RELIEF MODE. TWO SUBSEQUENT MANUAL ACTUATIONS OF AN SRV WERE REQUIRED BEFORE RCIC WAS CAPABLE OF CONTROLLING PRESSURE. REACTOR WATER LEVEL DECREASED TO ABOUT -2" AND WAS INITIALLY REGAINED BY FEEDWATER TO +54.5" WHICH IS THE HI LEVEL TRIP FOR THE FEED PUMP. WATER INVENTORY WAS SUBSEQUENTLY MAINTAINED BY RCIC. NO ECCS OR PCIS INITIATIONS WERE REQUIRED AND NO MAINTENANCE OR TESTING WAS IN PROGRESS THAT MADE THE TRANSIENT MORE SEVERE. THE LOSS OF VACUUM OCCURRED BECAUSE THE RUBBER BOOT SEAL WHICH FORMS AN EXPANSION JOINT BOUNDARY BETWEEN THE "C" LOW PRESSURE TURBINE AND THE "C" CONDENSER HOOD RUPTURED. THE BOOT SEAL WAS OVERHEATED AND SUBSEQUENTLY FAILED WHEN AN EXTRACTION STEAM EXPANSION JOINT LOCATED INSIDE THE CONDENSER FAILED THEREBY CAUSING STEAM TO IMPINGE ON THE METAL SHIELD PROTECTING THE BOOT SEAL. THE BOOT SEAL WAS REPLACED AND THE EXTRACTION STEAM LINE WAS CAPPED UNTIL A REPLACEMENT EXPANSION JOINT COULD BE OBTAINED.

[110] LA SALLE 1 DOCKET 50-373 LER 84-036
 UNSECURED HIGH RADIATION DOOR.
 EVENT DATE: 061484 REPORT DATE: 071284 NSSS: GE TYPE: BWR

(NSIC 190686) AT 0630 ON JUN 14, 1984, DOOR 444, ENTRANCE TO THE UNIT 2 REACTOR WATER CLEANUP HOLD PUMP ROOM, WAS FOUND TO BE CLOSED BUT NOT LATCHED. AN INVESTIGATION BY THE ELECTRICAL MAINTENANCE PERSONNEL INDICATED THAT THE ELECTRICAL STRIKE MECHANISM ON THE LOCKING DEVICE WAS STICKING IN THE OPEN POSITION. ELECTRICAL MAINTENANCE PERSONNEL REPAIRED THE DOOR BY LUBRICATING THE ELECTRICAL STRIKE MECHANISM.

[111] LA SALLE 1 DOCKET 50-373 LER 84-034
 UNSECURED HIGH RADIATION AREA DOOR.
 EVENT DATE: 061784 REPORT DATE: 071384 NSSS: GE TYPE: BWR

(NSIC 190743) AT 0515 ON JUNE 17, 1984, A HIGH RADIATION AREA DOOR, WHICH LEADS TO THE URC TANK ROOM ON THE 687' ELEVATION OF THE TURBINE BUILDING, WAS FOUND OPEN WITH NO POSITIVE ACCESS CONTROL. INDIVIDUALS ENTERED THE ROOM DURING THE HOURS OF 1525 ON JUNE 16, 1984 TO 0455 ON JUNE 17, 1984. UPON LEAVING THE ROOM, THE DOOR WAS NOT CLOSED AND SECURED. UPON DISCOVERY OF THE LACK OF SECURITY CONTROL OF THE HIGH RADIATION AREA, A RADIATION CHEMISTRY TECHNICIAN CLOSED AND SECURED THE DOOR.

[112] LA SALLE 1 DOCKET 50-373 LER 84-035
 OB DIESEL FIRE PUMP FLYWHEEL HAS CRACKS.
 EVENT DATE: 061984 REPORT DATE: 071684 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: LA SALLE 2 (BWR)
 VENDOR: CUMMINS ENGINE CO., INC.

(NSIC 190744) ON JUNE 19, 1984, AT APPROXIMATELY 1500 WHILE INSPECTING THE OB DIESEL FIRE PUMP FLYWHEEL BY SURFACE PENETRANT TESTING (PT) METHODS, CRACKS WERE DISCOVERED ON THE ENGINE SIDE OF THE FLYWHEEL. AT THE TIME OF THE OCCURRENCE, UNIT 1 AND UNIT 2 WERE OPERATING IN CONDITION 1 AT APPROXIMATELY 97% AND 30% POWER, RESPECTIVELY. THE CAUSE OF THE FLYWHEEL CRACKS IS CURRENTLY UNKNOWN BUT IS UNDER INVESTIGATION BY LA SALLE COUNTY STATION PERSONNEL AND THE MANUFACTURER (CUMMINS ENGINE COMPANY, INC.). A NEW ENGINE FLYWHEEL (PART #3023676) WAS INSTALLED AFTER BEING INSPECTED BY THE SURFACE PENETRANT TEST METHOD AND NO CRACKS WERE FOUND. THE OB DIESEL FIRE PUMP WAS TESTED AND RETURNED TO SERVICE 6/20/84 AT APPROXIMATELY 1100. THIS EVENT IS BEING SUBMITTED AS A VOLUNTARY LER DUE TO NRC INTEREST IN THIS AREA.

[113] LA SALLE 1 DOCKET 50-373 LER 84-037
 OA DIESEL FIRE PUMP FLYWHEEL HAS CRACKS.
 EVENT DATE: 062184 REPORT DATE: 071684 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: LA SALLE 2 (BWR)
 VENDOR: CUMMINS ENGINE CO., INC.

(NSIC 190745) ON JUNE 21, 1984 AT APPROXIMATELY 1400 WHILE INSPECTING THE OA DIESEL FIRE PUMP FLYWHEEL BY SURFACE PENETRANT TESTING (PT) METHODS, CRACKS WERE DISCOVERED ON THE ENGINE SIDE OF THE FLYWHEEL. AT THE TIME OF THE OCCURRENCE UNIT 1 AND UNIT 2 WERE OPERATING IN CONDITION 1 AT APPROXIMATELY 95% AND 40% POWER, RESPECTIVELY. THE CAUSE OF THE FLYWHEEL CRACKS IS UNKNOWN BUT IS UNDER INVESTIGATION BY LA SALLE COUNTY STATION PERSONNEL AND THE MANUFACTURER (CUMMINS ENGINE CO., INC.). A NEW ENGINE FLYWHEEL (PART #3023676) WAS INSTALLED AFTER BEING INSPECTED BY THE SURFACE PENETRANT TEST METHOD AND NO CRACKS WERE FOUND. THE OA DIESEL FIRE PUMP WAS TESTED AND RETURNED TO SERVICE 6/22/84 AT APPROXIMATELY 1100. THIS EVENT IS BEING SUBMITTED AS A VOLUNTARY LER DUE TO NRC INTEREST IN THIS AREA.

[114] LA SALLE 1 DOCKET 50-373 LER 84-039
 SCRAM ON LOW REACTOR WATER LEVEL.
 EVENT DATE: 062484 REPORT DATE: 071884 NSSS: GE TYPE: BWR
 VENDOR: BAILEY METER COMPANY

(NSIC 190687) ON JUN 24, 1984, AT 0820 HRS, THE UNIT 1 REACTOR SCRAMMED ON LOW VESSEL LEVEL. THE UNIT WAS AT 85% POWER. ALL INDICATIONS SHOW THAT THE MAIN STEAM FLOW SIGNAL TO THE REACTOR WATER LEVEL CONTROL (JB) LOGIC WAS LOST. THIS RESULTED IN THE FEEDWATER FLOW GOING TO ZERO. WITH FEEDWATER FLOW SHUT DOWN, VESSEL LEVEL DROPPED TO 12.5 INCHES, PRODUCING A SCRAM ON LOW LEVEL. THE LOSS OF STEAM FLOW WAS LINKED TO THE STEAM FLOW SUMMER OR DYNAMIC COMPENSATOR. ONE OF THESE DEVICES STOPPED OPERATING. THIS PRODUCED A ZERO STEAM FLOW SIGNAL TO THE REACTOR WATER LEVEL CONTROL LOGIC (JB). THE RESULT WAS A ZERO FEEDWATER FLOW DEMAND. THE CAUSE OF THE MOMENTARY LOSS OF SIGNAL COULD NOT BE DETERMINED.

[115] LA SALLE 1 DOCKET 50-373 LER 84-043
 REACTOR WATER CLEANUP SYSTEM ISOLATES ON HIGH DIFFERENTIAL FLOW.
 EVENT DATE: 062784 REPORT DATE: 072584 NSSS: GE TYPE: BWR

(NSIC 190803) ON JUN 27, 1984 AT 0510 HRS WITH UNIT ONE AT APPROX 71% POWER, WHILE THE 'A' REACTOR WATER CLEANUP FILTER/DEMINEALIZER WAS BEING DEISOLATED, THE RWC SYSTEM ISOLATED ON HIGH DIFFERENTIAL FLOW. THE CAUSE OF THIS OCCURRENCE IS UNKNOWN. IT IS SUSPECTED THAT THE DEMINEALIZER PARTIALLY DRAINS PRIOR TO BEING PLACED ON LINE. THEN WHEN THE BED IS PLACED ON LINE IT FILLS, WHICH CAUSES AN ERRONEOUS DIFFERENTIAL FLOW WHILE FILLING. AIR 1-84-67113 HAS BEEN ISSUED TO FURTHER INVESTIGATE THIS ISOLATION PROBLEM.

[116] LA SALLE 1 DOCKET 50-373 LER 84-044
 FAILURE OF HIGH PRESSURE CORE SPRAY WATERLEG PUMP CHECK VALVES.
 EVENT DATE: 070284 REPORT DATE: 072784 NSSS: GE TYPE: BWR
 VENDOR: ANDERSON, GREENWOOD & CO.

(NSIC 190746) ON JULY 2, 1984 DURING THE PERFORMANCE OF LOS-HP-Q1, THE HIGH PRESSURE CORE SPRAY SYSTEM (HPCS) QUARTERLY INSERVICE TEST CHECK VALVE 1E22-F006 AND STOP CHECK VALVE 1E22-F007 FAILED TO PREVENT REVERSE FLOW. THESE CHECK VALVES PROVIDE ISOLATION OF THE HPCS WATERLEG PUMP 1E22-C003 FROM THE DISCHARGE PRESSURE OF THE HPCS PUMP 1E22-C001. THE HPCS SYSTEM WAS SUBSEQUENTLY TAKEN OUT OF SERVICE TO REPAIR THE CHECK VALVES. AFTER TWO ATTEMPTS AT CORRECTING THE PROBLEM THE APPLICABLE PORTIONS OF SURVEILLANCE LOS-HP-Q1 WERE PERFORMED AT 2100 ON JUL 4, 1984 WITH SATISFACTORY RESULTS. THE CAUSE FOR THE CHECK VALVES FAILING APPEARS TO BE DUE TO SCORING OF THE DISC SEATS. THE VALVES WERE LAPPED AND THIS CORRECTED THE PROBLEM. THE OCCURRENCE WAS NOT SIGNIFICANT AS DIV I AND DIV II EMERGENCY CORE COOLING SYSTEMS WERE AVAILABLE THE ENTIRE TIME. THERE HAVE BEEN NO PREVIOUS OCCURRENCES TO DATE. THIS APPEARS TO BE AN ISOLATED CASE. THE VALVES WERE MADE BY ANDERSON, GREENWOOD CO.

[117] LA SALLE 2 DOCKET 50-374 LER 84-005 REV 1
 UPDATE ON HPCS PUMP BREAKER FAILS TO CLOSE.
 EVENT DATE: 021584 REPORT DATE: 060184 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190561) ON FEB 15, 1984, AT 2100 HRS, DURING THE PERFORMANCE OF LOS-HP-Q1 (HPCS SYSTEM INSERVICE TEST), THE HPCS PUMP BREAKER FAILED TO RECLOSE A SECOND TIME. DURING THIS TIME, UNIT 2 REACTOR WAS IN MODE 4 (COLD SHUTDOWN). THE CAUSE OF THIS OCCURRENCE WAS ATTRIBUTED TO A BREAKER POSITION SWITCH 52 LS, ASSOCIATED WITH THE SWITCHGEAR CLOSING CIRCUIT. WHEN THE BREAKER WAS CYCLED FOR A 2ND TIME, THE BREAKER POSITION SWITCH 52LS, FAILED TO STAY CLOSED. THIS PREVENTED THE BREAKER CLOSING COIL FROM ENERGIZING AND CLOSING THE BREAKER CONTACTS. NORMALLY

WHEN THE BREAKER IS RACKED-UP, THIS POSITION SWITCH ENABLES THE CLOSING COIL CIRCUIT. ANALYSIS OF THE OCCURRENCE INDICATES THAT THE BREAKER MAY NOT HAVE BEEN RECOGNIZED BY 52LS AS BEING RACKED-IN COMPLETELY. UPON CYCLING THE BREAKER A SECOND TIME, THE BREAKER MOVED DOWN SLIGHTLY IN THE SWITCHGEAR, OPENING THE POSITION SWITCH. THE CONSEQUENCES OF THIS EVENT WERE MINIMAL. IF AN INJECTION SIGNAL (LOW VESSEL LEVEL) HAD BEEN PRESENT, HPCS WOULD HAVE INITIATED AS REQUIRED. IF, AFTER RESETTING THE INITIATION LOGIC, ANOTHER INITIATION SIGNAL OCCURRED, HPCS WOULD HAVE FAILED TO OPERATE. WITHOUT HPCS INITIATION, LPCS AND LPCI WOULD HAVE INITIATED TO MAINTAIN VESSEL LEVEL. THE HPCS PUMP BREAKER WAS RERACKED, AND CYCLED 3 TIMES FROM THE CONTROL ROOM WITH NO PROBLEMS OBSERVED. SUBSEQUENTLY, THE POSITION SWITCH 52LS WAS REPLACED WITH A NEW SWITCH.

[118] LA SALLE 2 DOCKET 50-374 LER 84-009 REV 1
UPDATE ON RHR SHUTDOWN COOLING ISOLATION.
EVENT DATE: 030884 REPORT DATE: 061584 NSSS: GE TYPE: BWR
VENDOR: LIMITORQUE CORP.
RILEY-BEAIRD, INC.

(NSIC 190747) ON MAR 8, 1984, FOLLOWING THE COMPLETION OF WORK REQUEST L34027 ON INSTRUMENT 2E31N605C, RHR EQUIPMENT AREA HIGH TEMP SWITCH, AN ISOLATION SIGNAL WAS GENERATED CAUSING THE 'A' LOOP OF RHR TO ISOLATE. THE SHUTDOWN COOLING MODE OF RHR WAS IN OPERATION ON LOOP 'A' AT THE TIME. AS DESIGNED, THE INJECTION VALVE 2E12-F053A CLOSED, BUT CONTRARY TO DESIGN, THE SUCTION VALVE 2E12-F008 REMAINED OPEN. THIS SEQUENCE OF EVENTS PLACED THE 'A' RHR PUMP AT SHUT OFF HEAD CONDITIONS, AND THE SUBSEQUENT OPENING OF THE MINIMUM FLOW VALVE 2E12-F064A ALLOWED 60 INCHES OF REACTOR WATER TO BE PUMPED TO THE SUPPRESSION POOL. UPON RECEIVING A REACTOR VESSEL LOW LEVEL ALARM, THE OPERATOR TRIPPED THE 'A' RHR PUMP AND THUS TERMINATED THE LEVEL DECREASE. THE APPARENT CAUSE OF THE PROBLEM WAS: A PERSONNEL ERROR WAS MADE LEAVING THE BREAKER FOR THE 2E12-F008 VALVE IN THE OFF POSITION FOLLOWING SOME PREVIOUS TESTING THAT WAS PERFORMED INVOLVING THE 2E12-F008 VALVE. THE BREAKER AND VALVE POSITION WAS LOGGED IN THE U-2 NSO'S LOG, HOWEVER, THE NSO INVOLVED COULD NOT RECALL THE CIRCUMSTANCES SURROUNDING THE LOG ENTRY. THE FAILURE OF THE SPARE RILEY ALARM AND TRIP MODULE THAT WAS INSTALLED AS A PART OF WORK REQUEST L34027. THE SPARE ALARM AND TRIP MODULE WERE ASSUMED TO BE A WORKING UNIT BASED ON THE OPERABILITY CHECK PERFORMED ON THE INSTALLED SPARES DURING THE INITIAL CALIBRATION AND PAST EXPERIENCES WITH OTHER UNIT 2 INSTALLED SPARE MODULES OF THE SAME TYPE.

[119] LA SALLE 2 DOCKET 50-374 LER 84-021
REACTOR WATER CLEANUP HIGH DIFFERENTIAL FLOW ISOLATION.
EVENT DATE: 051584 REPORT DATE: 060784 NSSS: GE TYPE: BWR
VENDOR: MOORE PRODUCTS COMPANY

(NSIC 190513) 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 IS BEING PERFORMED.

[120] LA SALLE 2 DOCKET 50-374 LER 84-023
REACTOR WATER CLEANUP ISOLATIONS.
EVENT DATE: 052984 REPORT DATE: 061184 NSSS: GE TYPE: BWR
VENDOR: LONERGAN, J.E., CO.

(NSIC 190514) ON 5/29/84 BEGINNING AT 0851 HOURS THE UNIT 2 REACTOR WATER CLEANUP SYSTEM ISOLATED THREE SEPARATE TIMES ON RWCU HIGH DIFFERENTIAL TEMPERATURE. AFTER EACH ISOLATION, THE RWCU AREA TEMPERATURES WERE FOUND TO BE NORMAL, NO LEAKS WERE PRESENT, AND THE RWCU SYSTEM WAS RESTARTED. ALL OF THESE ISOLATIONS OCCURRED DURING A RCIC INSTRUMENT SURVEILLANCE, LIS-RI-203, THAT WAS BEING PERFORMED BY THE INSTRUMENT MECHANICS. ON THE SAME DAY AT 1045 HOURS, SHORTLY AFTER THE RWCU SYSTEM WAS RESTARTED FOR THE THIRD TIME, THE SYSTEM ISOLATED ON HIGH DIFFERENTIAL FLOW. A SHELL SIDE SAFETY RELIEF VALVE FOR THE REGENERATIVE HEAT EXCHANGER HAD LIFTED AND DAMAGED ITSELF IN SUCH A WAY THAT IT COULD NOT RESET. THE DAMAGED VALVE WAS REPLACED. AN OFFSET IN THE PIPING CONNECTING THE VALVE TO THE SYSTEM THAT CAUSED AN ABNORMAL SHEAR STRESS WAS CORRECTED. AFTER ALL REPAIRS WERE COMPLETED THE SYSTEM WAS PUT BACK ON LINE. SAFE PLANT CONDITIONS WERE MAINTAINED AT ALL TIMES.

[121] LA SALLE 2 DOCKET 50-374 LER 84-027
LOSS OF REACTOR WATER CLEANUP ISOLATION LEAK DETECTION.
EVENT DATE: 060484 REPORT DATE: 062884 NSSS: GE TYPE: BWR

(NSIC 190748) AT 0735 ON 6/4/84, WITH UNIT 2 AT 45% POWER, A TECH STAFF ENGR STARTED TAKING DATA PER LOD-15-2. BECAUSE OF RECURRING ISOLATIONS WHEN TAKING REACTOR WATER CLEANUP LEVEL INSTRUMENTS (RWCU LD) READINGS, A PROCEDURE CHANGE WAS APPROVED TO ALLOW BYPASSING THE ISOLATION CHANNELS UNTIL AT LEAST 10 MIN AFTER THE READINGS HAD TAKEN PLACE. AT 0825 A CST REQUESTED PERMISSION TO PERFORM LIS-RT-202 TO CALIBRATE THE RWCU LD TRIPS ON UNIT 2. BOTH CHANNEL BYPASS KEYS HAD BEEN ISSUED TO THE TECH STAFF ENGR. FOR THE DURATION OF THE TEST. AFTER VERIFYING COMPLIANCE WITH TECH SPEC 3.3.2 THE SHIFT CONTROL ROOM ENGR. (SCRE) INFORMED THE LICENSED OPERATOR (NSO) NOT TO REMOVE THE TEST SWITCHES FROM THE TEST POSITION UNLESS DIRECTED BY EITHER THE CST OR THE TECH STAFF ENGR. WHILE THE SCRE REALIZED THE TIME CLOCK REQUIREMENTS TO HAVE BOTH CHANNELS IN BYPASS, THIS CONCERN WAS NOT ADEQUATELY COMMUNICATED TO THE NSO, CST, OR TECH STAFF ENGR. AT ABOUT 1455 THE RELIEVING NSO DISCOVERED BOTH SWITCHES IN BYPASS AND BROUGHT THIS TO THE ATTENTION OF THE SCRE AND SE. ALL TESTING WAS IMMEDIATELY TERMINATED AND BOTH TRIP CHANNELS RETURNED TO NORMAL. CORRECTIVE ACTIONS INCLUDED A COACHING INTERVIEW WITH THE SCRE TO EMPHASIZE GOOD COMMUNICATIONS, TECH STAFF AND IM DEPT. TAILGATES ON THE OCCURRENCE AND A LETTER TO ALL SE'S AND SCRE'S CONCERNING TECH SPEC TIME CLOCKS ASSOCIATED WITH SURVEILLANCES AND PROCEDURES.

[122] LA SALLE 2 DOCKET 50-374 LER 84-025
REACTOR SCRAM CAUSED BY FALSE REACTOR LEVEL INDICATION.
EVENT DATE: 060684 REPORT DATE: 062184 NSSS: GE TYPE: BWR

(NSIC 190688) ON JUN 6, 1984, AN INSTRUMENT MECHANIC WAS IN THE PROCESS OF TESTING UNIT 2 REACTOR WATER LEVEL 2 LEVEL INDICATING TRANSMITTER SWITCH WHEN HE ACCIDENTALLY VENTED THE VARIABLE-SIDE OF THE INSTRUMENT. THIS SENT A PRESSURE SURGE THROUGH THE INSTRUMENT LINES AND CAUSED SEVERAL OTHER REACTOR WATER LEVEL SWITCHES ON THE SAME PANEL TO ACTUATE. THESE SWITCHES TRIPPED BOTH REACTOR RECIRCULATION PUMPS, INITIATED A REACTOR CORE ISOLATION COOLING (RCIC) INJECTION, AND GAVE A REACTOR PROTECTION SYSTEM (RPS) HALF SCRAM TRIP. THE RCIC INJECTION TRIPPED THE MAIN TURBINE AND THE MAIN TURBINE TRIP INITIATED ANOTHER RPS HALF SCRAM TRIP. A FULL REACTOR SCRAM RESULTED. INSTRUMENT MAINTENANCE PERSONNEL WERE TRAINED ON THIS EVENT AND MADE AWARE OF THE CONSEQUENCES OF PERSONNEL ERRORS. THE NEED TO ELIMINATE PERSONNEL ERROR WAS AGAIN STRESSED.

[123] LA SALLE 2 DOCKET 50-374 LER 84-033
CONTAINMENT ISOLATION VALVE FAILS TO CLOSE.
EVENT DATE: 060884 REPORT DATE: 072384 NSSS: GE TYPE: BWR
VENDOR: ASCO VALVES

(NSIC 190808) DURING THE PERFORMANCE OF STARTUP TEST 2-31, "LOSS OF OFFSITE POWER TEST," CONTAINMENT ISOLATION VALVE 2B33-F019 DID NOT CLOSE UPON RECEIPT OF A CONTAINMENT ISOLATION SIGNAL. UPON INVESTIGATION, IT WAS DISCOVERED THAT THE SOLENOID VALVE WAS IMPROPERLY POSITIONED PREVENTING THE AIR PRESSURE FROM VENTING OFF THAT HOLDS VALVE 2B33-F019 OPEN. OUTBOARD CONTAINMENT ISOLATION VALVE 2B33-F020 DID CLOSE, THUS MAINTAINING CONTAINMENT INTEGRITY. VALVE 2B33-F019 WAS REPAIRED BY REPOSITIONING ITS SOLENOID VALVE PROPERLY. SUBSEQUENTLY OTHER SAFETY RELATED VALVES WERE FOUND WITH MISPOSITIONED SOLENOID PILOT VALVES AND WERE REPAIRED OR REMOVED FROM SERVICE.

[124] LA SALLE 2 DOCKET 50-374 LER 84-026
 UNINTENTIONAL REACTOR WATER CLEANUP SYSTEM ISOLATION.
 EVENT DATE: 060984 REPORT DATE: 070284 NSSS: GE TYPE: BWR
 VENDOR: RILEY COMPANY, THE - PANALARM DIVISION

(NSIC 190689) ON 6/9/84, AT 1028 HRS, WITH UNIT 2 IN HOT SHUTDOWN AT ABOUT 400 PSIG, A DIV 1 LEAK DETECTION ISOLATION SIGNAL WAS RECEIVED CAUSING ISOLATION VALVE 2G33-F004 TO CLOSE AND THE REACTOR WATER CLEANUP PUMPS TO TRIP. NONE OF THE RILEY DIFFERENTIAL TEMPERATURE ISOLATION SWITCHES WERE OBSERVED TO BE ALARMING AND NO LEAKS OR ABNORMAL TEMPERATURES WERE OBSERVED IN THE VARIOUS ROOMS. AT THE TIME OF THE EVENT, INSTRUMENT MAINTENANCE WAS PERFORMING A RECALIBRATION OF THE MAIN STEAM TUNNEL DIFFERENTIAL TEMPERATURE SWITCHES IN THE SAME PANEL. THE ISOLATION LOGIC WAS RESET AND THE RWCU SYSTEM RESTARTED IN ACCORDANCE WITH NORMAL OPERATING PROCEDURES.

[125] LA SALLE 2 DOCKET 50-374 LER 84-029
 REACTOR WATER CLEANUP HIGH DIFFERENTIAL FLOW ISOLATIONS.
 EVENT DATE: 061184 REPORT DATE: 070584 NSSS: GE TYPE: BWR
 VENDOR: ROSEMOUNT, INC.

(NSIC 190690) ON JUN 11, 1984, AT 0857 HRS WITH UNIT 2 AT 0% POWER IN MODE 2, AN ISOLATION OF REACTOR WATER CLEANUP (RWCU) OCCURRED DUE TO HIGH DIFFERENTIAL FLOW ON DIVISION 1. AT THE TIME OF THIS ISOLATION THE REACTOR PRESSURE DECREASED WHEN PRESSURE EQUALIZATION WAS BEING PERFORMED ACROSS THE MAIN STEAM ISOLATION VALVES (MSIV'S). ON JUN 11, 1984, AT 1930 HRS WITH UNIT 2 AT 1% POWER IN MODE 2, AN ISOLATION OF RWCU OCCURRED DUE TO HIGH DIFFERENTIAL FLOW ON DIV 1. AT THE TIME OF THIS ISOLATION NO MAJOR SYSTEM CHANGES HAD BEEN PERFORMED FOR ABOUT 90 MINS. THESE ISOLATIONS WERE THE RESULT OF THE DENSITY DIFFERENCES BETWEEN THE INFLUENTS TO AND THE EFFLUENTS FROM THE RWCU SYSTEM. IN BOTH CASES THE RWCU SYSTEM'S ISOLATION VALVES CLOSED AS REQUIRED AND PLACED THE PLANT IN A SAFE CONDITION.

[126] LA SALLE 2 DOCKET 50-374 LER 84-030
 HPCS DISCHARGE RELIEF VALVE FAILURE.
 EVENT DATE: 061584 REPORT DATE: 070984 NSSS: GE TYPE: BWR
 VENDOR: CORSBY VALVE & GAGE CO.

(NSIC 190749) ON JUN 15, 1984, THE HIGH PRESSURE CORE SPRAY SYSTEM (HPCS, BG) WAS DECLARED INOPERABLE AS THE RESULT OF THE UNIT 2 HPCS DISCHARGE RELIEF VALVE (2E22-F035) INTERNAL BELLOWS SEAL FAILURE. A GENERATING STATION EMERGENCY PROCEDURE (GSEP) 'UNUSUAL EVENT' WAS DECLARED AND THE REACTOR WAS SHUT DOWN WITHIN 12 HRS IN ACCORDANCE WITH TECH SPEC 3.6.1.1. THE BELLOWS SEAL FAILURE OF THE RELIEF VALVE RESULTED IN A DEGRADATION OF THE PRIMARY CONTAINMENT LEAKAGE BOUNDARY. THE CAUSE FOR THE BELLOWS SEAL FAILURE APPEARS TO BE HYDRAULIC FORCES ON THE SEAL INHERENT IN THE DESIGN OF THE HPCS SYSTEM AND THE DISCHARGE OF THE RELIEF VALVE. THE HPCS RELIEF VALVE WAS REPAIRED AND TESTED OPERATIONAL UNDER WORK REQUEST L37865. WORK WAS COMPLETED BY JUN 16, 1984.

[127] LA SALLE 2 DOCKET 50-374 LER 84-031
 REACTOR WATER CLEANUP ISOLATION DUE TO INSTRUMENTS NOT FUNCTIONING.
 EVENT DATE: 062284 REPORT DATE: 071684 NSSS: GE TYPE: BWR
 VENDOR: RILEY-BEAIRD, INC.

(NSIC 190691) ON JUNE 22, 1984, AT 1350 HRS WITH UNIT 2 OPERATING AT ABOUT 70% POWER, THE REACTOR WATER CLEANUP SYSTEM (RWCU, CE) ISOLATED ON A SPURIOUS HIGH AMBIENT DIVISION II TEMPERATURE LEAK DETECTION (JM) TRIP. THE TRIP SIGNAL OCCURRED SEVERAL MINUTES AFTER THE RILEY 2E31-N601B AND 2E31-N601D SWITCHES HAD BEEN TAKEN TO THE "READ" POSITION. NONE OF THE RWCU TEMPERATURE SWITCH MODULES INDICATED THAT A TRIP SIGNAL HAD OCCURRED. THE ISOLATION WAS RESET AND THE SYSTEM RETURNED TO NORMAL OPERATION AFTER VERIFYING THAT NO ABNORMAL CONDITIONS EXISTED IN THE RWCU SYSTEM AREAS.

[128] LA SALLE 2 DOCKET 50-374 LER 84-032
 REACTOR WATER CLEANUP SYSTEM ISOLATES.
 EVENT DATE: 062684 REPORT DATE: 071984 NSSS: GE TYPE: BWR
 VENDOR: RILEY-BEAIRD, INC.

(NSIC 190807) ON JUN 26, 1984, AT 9843 HRS WITH UNIT 2 OPERATING AT 55% POWER, THE REACTOR WATER CLEANUP SYSTEM (RWCU, CE) ISOLATED ON A SPURIOUS HIGH DIFFERENTIAL TEMPERATURE DIV I LEAK DETECTION (JM) TRIP. THE EVENT OCCURRED WHILE INSTRUMENT MECHANICS WERE PERFORMING A FUNCTIONAL SURVEILLANCE OF THE REACTOR CORE ISOLATION COOLING (BN) LEAK DETECTION SYSTEM, DIV I. NONE OF THE RWCU RILEY TEMPERATURE SWITCH MODULES INDICATED THAT A TRIP SIGNAL HAD OCCURRED. AFTER VERIFYING THAT NO ABNORMAL CONDITIONS EXISTED IN THE VARIOUS RWCU AREAS, THE RWCU SYSTEM WAS RESTARTED AND RETURNED TO NORMAL OPERATION.

[129] LACROSSE DOCKET 50-409 LER 84-008
 EMERGENCY SERVICE WATER SUPPLY SYSTEM SUCTION HOSE HYDRO FAILURE.
 EVENT DATE: 060984 REPORT DATE: 070584 NSSS: AC TYPE: BWR

(NSIC 190635) DURING THE ANNUAL HYDROSTATIC TEST OF THE EMERGENCY SERVICE WATER SUPPLY SYSTEM (ESWSS) PUMP SUCTION HOSES, HOSE NO. 2 AND THE SPARE SUCTION HOSE LEAKED AT THE END WHICH CONNECTS TO THE PUMP. THE OTHER HOSES PERFORMED SATISFACTORILY. THE ESWSS CONSISTS OF THREE PORTABLE GASOLINE ENGINE-DRIVEN PUMPS WITH ASSOCIATED HOSES AND A DISTRIBUTOR. THE SYSTEM IN ITSELF IS NOT SAFETY-RELATED, BUT IT FUNCTIONS AS A BACKUP FOR THE SAFETY-RELATED ALTERNATE CORE SPRAY PUMPS. THEREFORE, THIS INCIDENT IS BEING REPORTED. THE GASKET IN THE HOSE SHANK COUPLING WAS REPLACED ON BOTH HOSES. BASED ON THIS EXPERIENCE, IT HAS BEEN DETERMINED THAT THE GASKETING MATERIAL WHICH HAD BEEN USED DID NOT CONTINUE TO PERFORM SATISFACTORILY WITH AGING. A MORE APPROPRIATE GASKETING MATERIAL HAS BEEN ORDERED. THE GASKETS WILL BE REPLACED IN THE THREE SYSTEM SUCTION HOSES AND THE SPARE HOSE.

[130] LACROSSE DOCKET 50-409 LER 84-009
 LACK OF HOURLY FIRE PATROL WHILE FIRE DOOR WAS OPEN.
 EVENT DATE: 061184 REPORT DATE: 071084 NSSS: AC TYPE: BWR

(NSIC 190695) ON JUNE 11, 1984, THE DOOR BETWEEN THE MACHINE SHOP AND THE ELECTRICAL PENETRATION ROOM WAS BLOCKED OPEN TO ALLOW VENTILATION OF THE ELECTRICAL PENETRATION ROOM DUE TO AN INCREASE IN ROOM TEMPERATURE. ON JUNE 12, IT WAS DETERMINED THAT AN HOURLY FIRE WATCH PATROL WAS REQUIRED FOR THE AREA WHILE THE DOOR WAS BLOCKED OPEN. THE DOOR WAS THEN CLOSED. AN HOURLY FIRE WATCH PATROL WAS ESTABLISHED DURING SUBSEQUENT VENTILATING PERIODS. TO PREVENT FUTURE REOCCURRENCE OF SIMILAR EVENTS, THE FIRE DOORS PROTECTING SAFETY RELATED AREAS ARE BEING LABELED AS FIRE DOORS. AN AIR CONDITIONER WAS INSTALLED TO PROVIDE A PERMANENT METHOD OF ELECTRICAL PENETRATION ROOM COOLING.

[131] MAINE YANKEE DOCKET 50-309 LER 84-003 REV 1
 UPDATE ON THE INADVERTENT OPENING OF A SAFEGUARDS VALVE SUPPLY BREAKER.
 EVENT DATE: 032784 REPORT DATE: 052984 NSSS: CE TYPE: PWR
 VENDOR: ANCHOR EQUIPMENT CO.
 WESTINGHOUSE ELECTRIC CORP.

(NSIC 190552) WHILE OPERATING AT 85% POWER DURING COASTDOWN OPERATIONS PRIOR TO A SCHEDULED REFUELING OUTAGE, THE POWER SUPPLY BREAKER FOR A SAFEGUARDS MOTOR OPERATED VALVE WAS FOUND OPEN FOR AN UNKNOWN REASON, RENDERING THE VALVE INOPERABLE. THE VALVE NORMALLY OPENS ON A RECIRCULATION ACTUATION SIGNAL TO SUPPLY ONE HIGH PRESSURE SAFETY INJECTION PUMP WITH ADEQUATE NPSH FOR LONG TERM CORE COOLING FLOW. INVESTIGATION BY PLANT SECURITY PERSONNEL DETERMINED THAT THE EVENT WAS ACCIDENTAL. CONTRACTOR PERSONNEL, WHO HAD BEEN WORKING IN CLOSE PROXIMITY TO THE MOTOR CONTROL CENTER BREAKER LOCATION APPROX 12 HRS BEFORE THE BREAKER WAS DISCOVERED OPEN, MAY HAVE INADVERTENTLY KICKED IT OPEN. THE VALVE COULD HAVE BEEN OUT OF SERVICE FOR UP TO 12 HRS PRIOR TO DISCOVERY, THEREFORE, THE PLANT MAY HAVE OPERATED IN A DEGRADED MODE FOR A PERIOD OF TIME LONGER THAN THAT PERMITTED BY TECH SPECS. THE OPPOSITE ECCS TRAIN WAS OPERABLE DURING THE EVENT. THE BREAKER WAS CLOSED AND THE VALVE WAS TESTED OPERABLE WITHIN 10 MINS OF DISCOVERY OF THE OPEN BREAKER. MAINE YANKEE IS EXPLORING SEVERAL OPTIONS INTENDED TO ASSIST THE LICENSED OPERATORS IN IDENTIFYING SAFEGUARD VALVES WHICH ARE NOT IN THE PROPER POSITION FOR NORMAL PLANT OPERATION. A CORRECTIVE ACTION TO PREVENT RECURRENCE OF THIS EVENT WILL BE IMPLEMENTED PRIOR TO STARTUP FROM THE CURRENT REFUELING OUTAGE.

[132] MAINE YANKEE DOCKET 50-309 LER 84-005
 OPEN BREAKER CAUSES INADVERTENT SAFETY INJECTION ACTUATION.
 EVENT DATE: 052984 REPORT DATE: 062984 NSSS: CE TYPE: PWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190610) ON 29 MAY 1984, THE PLANT WAS IN A REFUELING SHUTDOWN CONDITION WITH THE HEAD REMOVED AND THE CORE UNLOADED. BOTH TRAINS OF THE SAFETY INJECTION ACTUATION SIGNAL (SIAS) SYSTEM WERE IN BLOCK MODE. DURING THE CALIBRATION OF A REACTOR COOLANT SYSTEM (RCS) PRESSURE INPUT TO THE SAFETY PARAMETER DISPLAY SYSTEM (SPDS), AN INADVERTENT SIAS ACTUATION OCCURRED. THE PRESSURE CALIBRATION SIGNAL WAS REDUCED BELOW THE SIAS AUTO UNBLOCK SETPOINT. OPERATORS THEN BLOCKED AND RESET TRAIN B SIAS, BUT WERE UNABLE TO BLOCK TRAIN A SIAS. THE CAUSE OF THE SIAS WAS AN OPEN BREAKER IN CONJUNCTION WITH THE CALIBRATION SIGNAL. TRAIN A SIAS COULD NOT BE BLOCKED BECAUSE OF THE OPEN BREAKER AND A NONCONDUCTING CONTACT IN A TYPE BFD RELAY IN THE TRAIN A SIAS LOGIC. THE BREAKER WAS SHUT AND OPERATORS THEN BLOCKED AND RESET TRAIN A SIAS. SINCE THE PLANT WAS IN A REFUELING SHUTDOWN, THE SIAS IMPACT ON PLANT OPERATIONS WAS MINIMAL. TO PRECLUDE FUTURE INCIDENTS INVOLVING NONCONDUCTING CONTACTS IN THIS TYPE OF RELAY, ALL TYPE BFD RELAYS IN THE SAFEGUARDS SYSTEMS HAVE BEEN EITHER REPLACED OR DISASSEMBLED AND CLEANED. A PREVENTATIVE MAINTENANCE PROGRAM FOR ECCS RELATED RELAYS IS BEING DEVELOPED. PROCEDURAL METHODS TO PREVENT INADVERTENT SAFETY INJECTION ACTUATION FROM AFFECTING PLANT EQUIPMENT WHILE IN EXTENDED SHUTDOWN WILL BE INVESTIGATED.

[133] MAINE YANKEE DOCKET 50-309 LER 84-008
 REACTOR TRIPS ON LOSS OF LOAD DURING PLANT STARTUP.
 EVENT DATE: 062284 REPORT DATE: 071984 NSSS: CE TYPE: PWR

(NSIC 190798) ON JUN 22, 1984, OPERATIONS PERSONNEL WERE PERFORMING A PLANT STARTUP AFTER REFUELING. WHILE INCREASING REACTOR POWER FOR MAIN TURBINE TESTING, OPERATORS DISCOVERED THE LINEAR POWER NUCLEAR INSTRUMENTATION CHANNELS WERE INDICATING APPROX 6% HIGHER THAN THE WIDE RANGE LOGARITHMIC NUCLEAR INSTRUMENTATION CHANNELS. LINEAR POWER CHANNEL 8 ACTIVATED A 15% POWER BISTABLE ENABLING THE REACTOR PROTECTIVE SYSTEM (RPS) LOSS OF LOAD TRIP FOR CHANNEL D. THE TURBINE TRIP TESTING PROCEEDED. UPON REALIZATION OF THE REACTOR TRIP

POTENTIAL ASSOCIATED WITH TESTING THE TURBINE UNDER THESE CONDITIONS, CONTROL ROOM PERSONNEL UNSUCCESSFULLY ATTEMPTED TO CONTACT THE TEST OPERATOR AT THE LOCAL TURBINE TRIP PANEL. THE TURBINE WAS TRIPPED AND A SECOND BISTABLE ACTIVATED AT APPROX THE SAME TIME, CAUSING 2 OF 4 LOSS OF LOAD RPS CHANNELS TO SCRAM THE REACTOR. THE STARTUP PROCEDURE WILL BE MODIFIED TO INCLUDE A COMPARISON OF POWER CHANNELS AS REACTOR POWER IS INCREASED. ADDITIONAL COMMUNICATIONS CAPABILITY WILL BE REQUIRED AT THE TURBINE TRIP STATION.

[134] MCGUIRE 1 DOCKET 50-369 LER 84-017
 DIESEL GENERATOR 1A AND 1B STARTS DUE TO DISTRIBUTION SYSTEM DISTURBANCE.
 EVENT DATE: 052384 REPORT DATE: 062284 NSSS: WE TYPE: PWR

(NSIC 190511) DIESEL GENERATORS (D/G'S) 1A AND 1B EXPERIENCED AN INVALID AUTOMATIC START ON MAY 23, 1984 AT 1655. THE DG'S STARTED ON A UNIT 1 BLACKOUT SIGNAL GENERATED BY A MOMENTARY POWER DISTRIBUTION SYSTEM DISTURBANCE CAUSED BY AN ELECTRICAL STORM IN THE SERVICE AREA. UNIT 1 WAS IN MODE 1 AT 50% POWER AT THE TIME OF THE OCCURRENCE. THIS INCIDENT IS ATTRIBUTED TO AN UNUSUAL SERVICE CONDITION, DUE TO THE POWER DISTRIBUTION SYSTEM DISTURBANCE CAUSED BY THE ELECTRICAL STORM. THIS EVENT IS SIMILAR TO PREVIOUS LER'S 369/84-10 AND 369/84-06. THE BLACKOUT SIGNAL CLEARED IN LESS THAN 1 SECOND, THE D/G'S DID NOT LOAD. THE D/G'S WERE SHUT DOWN AFTER OPERATING FOR APPROXIMATELY 22 MINUTES. THE D/G'S PERFORMED AS DESIGNED DURING THIS INCIDENT. DUKE POWER IS PURSUING INSTALLING A TIME DELAY ON THE UV RELAY TO AID IN PREVENTION OF SPURIOUS STARTS.

[135] MCGUIRE 1 DOCKET 50-369 LER 84-018
 CONTROL AREA VENTILATION TRAINS A AND B INOPERABLE.
 EVENT DATE: 060484 REPORT DATE: 070584 NSSS: WE TYPE: PWR
 OTHER UNITS INVOLVED: MCGUIRE 2 (PWR)

(NSIC 190632) ON JUNE 4, 1984 AT APPROX 2100, THE TRAIN B CHILLER OF THE CONTROL AREA VENTILATION (VC) SYSTEM TRIPPED DUE TO LOW OIL LEVEL AND WAS DECLARED INOPERABLE (2105). TRAIN A OF VC HAD BEEN PREVIOUSLY DECLARED INOPERABLE BECAUSE OF MAINTENANCE WORK. THE INOPERABILITY OF BOTH TRAINS OF VC, WHILE A UNIT IS ON-LINE, IS PROHIBITED BY TECH SPEC 3.7.6. ACCORDINGLY, AT 2205 THE CONTROL OPERATORS STARTED TO REDUCE POWER ON UNITS ONE AND TWO AS REQUIRED BY TECH SPEC 3.0.3. UNITS 1 AND 2 WERE IN MODE 1 AT 100% POWER AT THE TIME OF THIS EVENT. AT APPROX 2230, FIVE GALLONS OF OIL WERE ADDED TO THE CHILLER AND THE CHILLER RESTARTED. WITH VC TRAIN B THEN OPERABLE, THE CONTROL OPERATORS STOPPED REDUCING POWER WITH EACH UNIT HAVING REACHED 97% POWER. TRAIN B OF VC WAS DECLARED OPERABLE AT 2255. THE UNITS WERE RETURNED TO 100% POWER AT 2312. THIS EVENT IS ATTRIBUTED TO UNUSUAL SERVICE CONDITIONS DUE TO THE COOLING LOAD OF THE CONTROL ROOM AREA BEING INSUFFICIENT TO FULLY LOAD THE TRAIN B CHILLER. DUKE POWER IS CONTINUING ITS REVIEW OF THIS PROBLEM TO DETERMINE ANY FURTHER CORRECTIVE ACTIONS.

[136] MCGUIRE 1 DOCKET 50-369 LER 84-019
 FAILURE TO INSTALL T-DRAINS IN LIMITORQUE SMB ELECTRICAL MOTOR OPERATORS.
 EVENT DATE: 060684 REPORT DATE: 070684 NSSS: WE TYPE: PWR
 OTHER UNITS INVOLVED: MCGUIRE 2 (PWR)

(NSIC 190683) LIMITORQUE SMB ELECTRIC MOTOR ACTUATORS ARE QUALIFIED FOR ACTIVE INSIDE CONTAINMENT SERVICE PER LIMITORQUE QUALIFICATION TYPE TEST REPORT 600456. THE ACTUATORS WERE QUALIFIED WITH T-DRAIN PLUGS INSTALLED IN THE BOTTOM OF THE ACTUATOR MOTOR HOUSING TO PREVENT ACCUMULATION OF CONDENSATION DURING A LOCA OR MSLB. DUKE POWER UTILIZES ACTUATORS QUALIFIED TO REPORT 600456 FOR ACTIVE VALVES IN BOTH THE CONTAINMENT AND DOGHOUSES. THE T-DRAIN PLUGS ARE PACKAGED INSIDE THE ACTUATOR SWITCH COMPARTMENT AND TAGGED WITH FIELD INSTALLATION INSTRUCTIONS. AN INSPECTION CONDUCTED (6/6-10/84) AT MCGUIRE AS A RESULT OF DEFICIENCIES IDENTIFIED ON THE CATAWBA NUCLEAR STATION REVEALED SEVERAL ACTIVE VALVES WITH

LIMITORQUE SMB ACTUATORS INSTALLED IN THE CONTAINMENT AND DOGHOUSES WITHOUT THE T-DRAINS IN PLACE. BOTH UNITS WERE IN MODE 1 AT 100% POWER AT THE TIME OF DISCOVERY. INVESTIGATION WAS UNABLE TO DETERMINE A CAUSE FOR THE FAILURE TO INSTALL THE T-DRAINS. EVALUATION INDICATED THERE IS A VERY HIGH DEGREE OF CONFIDENCE THAT THE VALVES WOULD HAVE FUNCTIONED WITHOUT T-DRAIN PLUGS IN PLACE. THE VALVE ACTUATORS WERE FITTED WITH T-DRAIN PLUGS AS SOON AS THEY BECAME ACCESSIBLE. LIMITORQUE INSTALLATION AND INSTRUCTION MANUALS WILL BE REVISED TO INCLUDE T-DRAIN PLUG INSTALLATION REQUIREMENTS.

[137] MCGUIRE 1 DOCKET 50-369 LER 84-020
 REACTOR TRIP CAUSED BY SPURIOUS UNDERVOLTAGE RELAY ACTUATION.
 EVENT DATE: 060684 REPORT DATE: 070684 NSSS: WE TYPE: PWR
 VENDOR: I-T-E CIRCUIT BREAKER

(NSIC 190684) ON JUN 6, 1984, UNIT 1 REACTOR TRIPPED AT 1756 WHEN A SPURIOUS UNDERVOLTAGE RELAY ACTUATION DEENERGIZED ONE OF THE REACTOR COOLANT (NC) PUMPS. THE RELAY WHICH PROTECTS 7KV BUS 1TC FROM UNDERVOLTAGE OPERATION BY MONITORING THE NORMAL INCOMING POWER, MALFUNCTIONED AND TRIPPED THE NORMAL INCOMING POWER CIRCUIT BREAKER 1TC-6. LOSS OF THIS POWER SOURCE DEENERGIZED 7KV BUS 1TC, WHICH INCLUDED NC PUMP 1C. SINCE THE UNIT WAS OPERATING AT A POWER LEVEL ABOVE THE AUTOMATIC TRIP SETPOINT OF 48% (90% ACTUAL THERMAL POWER), LOSS OF THE NC PUMP CAUSED AN IMMEDIATE REACTOR AND TURBINE TRIP. THE RELAY WAS REPLACED AND THE REACTOR RESTARTED. THE EVENT IS ATTRIBUTED TO COMPONENT MALFUNCTION SINCE THE RELAY SPURIOUSLY ACTUATED WITH NORMAL VOLTAGE ON THE NORMAL INCOMING POWER SOURCE. INITIAL TESTING INDICATED THAT THE RELAY APPEARS TO BE WORKING CORRECTLY. FURTHER TESTING OF THE RELAY WILL BE CONDUCTED TO DETERMINE THE FAILURE MECHANISM OF THE DEVICE. THE UNDERVOLTAGE RELAY FAILED IN THE CONSERVATIVE DIRECTION, AND PLANT RESPONSE TO THE TRIP WAS WELL CONTROLLED.

[138] MCGUIRE 2 DOCKET 50-370 LER 84-013
 REACTOR TRIP DUE TO REVERSE FLOW THROUGH TEMPERING FLOW CHECK VALVE.
 EVENT DATE: 051184 REPORT DATE: 061484 NSSS: WE TYPE: PWR
 VENDOR: KEROTEST MANUFACTURING CORP.

(NSIC 190512) ON MAY 11, 1984, WHILE RETURNING TO POWER FOLLOWING A TRIP (REF. LER 370/84-12), A REACTOR TRIP OCCURRED AT 0051 WHEN STEAM GENERATOR (S/G) 2D LEVEL DROPPED BELOW THE S/G LOW-LOW LEVEL REACTOR TRIP SETPOINT. THE S/G LOW-LOW LEVEL CONDITION RESULTED FROM FEEDWATER DRAINING TO THE MAIN CONDENSER AS REVERSE FLOW PURGE ON S/G 2D WAS ATTEMPTED. THE FLOW PATH OF WATER WAS THROUGH CHECK VALVE 2CF-158, D S/G TEMPERING FLOW INLET CHECK, WHOSE FAILURE RESULTED IN FLOW IN THE REVERSE DIRECTION. THE UNIT WAS THEN STABILIZED AND RESTARTED WITH VALVE 2CF-158 ISOLATED. UNIT 2 WAS IN MODE 1 AT 23% POWER AT THE TIME OF THIS EVENT. THIS INCIDENT IS ATTRIBUTED TO COMPONENT FAILURE BECAUSE VALVE 2CF-158 FAILED OPEN ALLOWING REVERSE FLOW. VALVE 2CF-158 WILL BE REPAIRED DURING THE NEXT EXTENDED OUTAGE.

[139] MILLSTONE 1 DOCKET 50-245 LER 84-012
 FAILURE OF SAFETY RELIEF VALVES TO LIFT.
 EVENT DATE: 061484 REPORT DATE: 071384 NSSS: GE TYPE: BWR
 VENDOR: TARGET ROCK CORP.

(NSIC 190646) ON JUNE 14, 1984, WHILE PERFORMING SETPOINT BENCH TESTS ON SIX SAFETY RELIEF VALVES, THREE INSERVICE SAFETY RELIEF TOPWORKS FAILED TO OPEN AT THEIR REQUIRED SETPOINT PRESSURE. SAFETY RELIEF VALVES S/N 1035, 1041 AND 1042 EXHIBITED A MAXIMUM DEVIATION OF 108%, 102% AND 101.5% OF SETPOINT PRESSURE RESPECTIVELY. BASED UPON THE TRENDING OF THE DATA OBTAINED DURING TESTING, IT IS BELIEVED HIGH FRICTION AT THE LABYRINTH SEAL CAUSED THE SETPOINT DRIFT. DISASSEMBLY OF THE SAFETY RELIEF VALVES SUPPORTED THIS BY REVEALING SCORED

BEARING SURFACES, A CONDITION WHICH CONTRIBUTES TO LABRINTH SEAL GALLING AND A SUBSEQUENT HIGH FRICTION LOAD. ALL SIX SAFETY RELIEF VALVES INCLUDING THE SPARE SAFETY RELIEF VALVE WERE OVERHAULED AND RECERTIFIED TO WITHIN + OR - 1% OF THEIR RESPECTIVE SETPOINTS. S/N 1035 WAS REPLACED WITH THE SPARE SAFETY RELIEF VALVE. THE BWR OWNER'S GROUP SUBCOMMITTEE FOR SAFETY RELIEF VALVE SETPOINT DRIFT HAS BEEN INFORMED OF THE AS FOUND DIAMETRAL PILOT STEM CLEARANCES AND WILL UTILIZE THIS INFORMATION TO CONTINUE THEIR EVALUATION OF THE SETPOINT DRIFT PHENOMENON.

[140] MILLSTONE 1 DOCKET 50-245 LER 84-015
ISOLATION CONDENSER PRIMARY CONTAINMENT ISOLATION VALVE FAILS.
EVENT DATE: 070984 REPORT DATE: 073084 NSSS: GE TYPE: BWR
VENDOR: TELEDYNE CORP.

(NSIC 190790) ON 7-9-84, AT 1315 HRS, WHILE RESTORING THE ISOLATION CONDENSER VALVE LINEUP FOLLOWING AN ISOLATION CONDENSER FUNCTIONAL AND CALIBRATION TEST, THE ISOLATION CONDENSER CONTAINMENT ISOLATION VALVE MOTOR OVERLOAD AND 125V DC GROUND ALARM ANNUNCIATED IN THE CONTROL ROOM. OPERATIONS IMMEDIATELY ASCERTAINED 1-IC-3 (THE OUTBOARD CONDENSATE RETURN VALVE) TO BE INOPERATIVE AND PLACED 1-IC-4 (THE REDUNDANT ISOLATION VALVE FOR 1-IC-3) IN THE CLOSED POSITION. THE ISOLATION CONDENSER WAS DECLARED INOPERABLE AND AN INVESTIGATION INITIATED. INSPECTION OF 1-IC-3 REVEALED AN OUT OF ADJUSTMENT LIMIT SWITCH CAUSED THE MOTOR TO CONTINUE TO RUN BEYOND THE FULL CLOSED POSITION AND OVERHEAT. THIS DAMAGED THE MOTOR EXTENSIVELY AND SUBSEQUENTLY FAILED 1-IC-3 IN THE FULL CLOSED POSITION. THE MOTOR/CIRCUIT BREAKER FOR 1-IC-3 WAS REPLACED AND ALL LIMIT SWITCHES AND POSITION SWITCHES READJUSTED. THE VALVE WAS SATISFACTORILY RETESTED AND THE ISOLATION CONDENSER PLACED BACK INTO SERVICE.

[141] MILLSTONE 2 DOCKET 50-336 LER 82-009 REV 1
UPDATE ON INOPERABLE BORIC ACID FLOW PATH.
EVENT DATE: 041982 REPORT DATE: 061884 NSSS: CE TYPE: PWR

(NSIC 190575) DURING A ROUTINE STARTUP, REVIEW OF TECH SPECS SECTION 3.5.2.D EMERGENCY CORE COOLING SYSTEM (ECCS) SUBSYSTEMS REVEALED MODE CHANGES HAD OCCURRED WHILE OPERATING UNDER ACTION STATEMENT 'A' BECAUSE AN INOPERABLE VALVE DISABLED A REQUIRED BORIC ACID FLOW PATH. THE VALVE WAS RETURNED TO OPERABLE STATUS AND OPERATION CONTINUED IN ACCORDANCE WITH THE TECH SPECS. THE TOTAL TIME IN THE ACTION STATEMENT WAS 47 HRS. THE MODE CHANGES MADE WHILE OPERATING IN THE ACTION STATEMENT OCCURRED BECAUSE OF A MISINTERPRETATION BETWEEN 2 SIMILAR SECTIONS, 3.5.2.D AND 3.1.2.2.A. PERSONNEL HAVE BEEN BRIEFED ON THE DIFFERENCES AND A TECH SPEC CHANGE HAS BEEN ISSUED TO REDUCE CONFUSION.

[142] MILLSTONE 2 DOCKET 50-336 LER 83-021 REV 1
UPDATE ON SETPOINT DRIFT OF MAIN STEAM SAFETY VALVES.
EVENT DATE: 052883 REPORT DATE: 060184 NSSS: CE TYPE: PWR
VENDOR: DRESSER INDUSTRIAL VALVE & INST DIV

(NSIC 190525) DURING MAIN STEAM SAFETY VALVE SIMMER TESTING, 11 OF 16 VALVES HAD SETPOINT DRIFT OUTSIDE THE ACCEPTANCE CRITERIA. 9 VALVES HAD DRIFTED BELOW THE SETPOINT AND 2 VALVES DRIFTED ABOVE THEIR SETPOINT. THE PLANT OPERATED IN ACCORDANCE WITH TECH SPEC ACTION STATEMENT 3.7.1.1.A FOR 7 HRS UNTIL MODE 4 (HOT SHUTDOWN) WAS ACHIEVED. SIMILAR EVENTS: NONE. ACTUAL CAUSE IS UNKNOWN. SEVERAL CAUSES WERE SUGGESTED AS POSSIBLE CONTRIBUTORS. 7 VALVES' SETPOINTS WERE RESET, 4 VALVES WERE SENT OUT FOR REFURBISHMENT AND TESTING. NOTHING UNUSUAL WAS DETECTED DURING REFURBISHMENT THAT COULD HAVE CONTRIBUTED TO THE CAUSE. IN THE FUTURE THE TEST METHOD WILL BE MONITORED FOR ACCURACY.

[143] MILLSTONE 2 DOCKET 50-336 LER 83-024 REV 2
 UPDATE ON CORE SUPPORT BARREL AND THERMAL SHIELD DAMAGE.
 EVENT DATE: 063083 REPORT DATE: 041784 NSSS: CE TYPE: PWR
 VENDOR: COMBUSTION ENGINEERING, INC.

(NSIC 190526) DURING SCHEDULE INSPECTIONS OF THE REACTOR VESSEL CORE BARREL AND THERMAL SHIELD (TS), DAMAGE TO THE TS WAS DISCOVERED. IN ADDITION, NON-DESTRUCTIVE EXAMINATION OF THE CORE SUPPORT BARREL (CSB) REVEALED A THRU-WALL CRACK AT TWO OF THE NINE CSB LUGS. THERE WERE NO CONSEQUENCES SINCE THE DAMAGED TS REMAINED IN POSITION AND THERE WAS NO BLOCKAGE OF ANY CORE FLOW PASSAGES. SIMILAR LER'S: NONE. THE CAUSE OF THE DAMAGE TO THE TS APPEARS TO BE THE RESULT OF HYDRAULICALLY INDUCED LOADING. THE DETERIORATED TS SUPPORT SYSTEM RESULTED IN ADDITIONAL LOADING AT THE CSB LUGS CAUSING THE CRACKS. THE TS WAS REMOVED AND THE CSB WAS REPAIRED.

[144] MILLSTONE 2 DOCKET 50-336 LER 84-008
 MISSED FIRE PROTECTION SYSTEM SURVEILLANCE AND FIRE BARRIER VIOLATION.
 EVENT DATE: 061584 REPORT DATE: 071384 NSSS: CE TYPE: PWR
 VENDOR: PYROTRONICS

(NSIC 190802) DURING AN UNANNOUNCED MRC AUDIT, TWO PROBLEMS WERE DISCOVERED: 1) THE DOCUMENTATION FOR A SEMI-ANNUAL FIRE DETECTION SYSTEM INSTRUMENTATION SURVEILLANCE FOR NOV 1983 COULD NOT BE FOUND. INVESTIGATION SHOWED THAT THE SURVEILLANCE WAS PROBABLY PERFORMED BUT NO WRITTEN PROOF COULD BE FOUND. AFTER CONFIRMING THE SURVEILLANCE WAS MISSING, THE MAY 1984 SURVEILLANCE WAS REVIEWED AND FOUND COMPLETE WITH NO DISCREPANCIES. THIS SURVEILLANCE WAS CONSIDERED PROOF THAT THE FIRE DETECTION SYSTEM WAS OPERABLE AND PLANT SAFETY WAS NOT JEOPARDIZED. PROCEDURES WERE CHANGED TO PREVENT RECURRENCE. 2) A BREACH IN THE FIRE BARRIER IN THE DC SWITCHGEAR ROOM WAS IDENTIFIED. A FIBERGLASS DRAIN PIPE DID NOT HAVE A FIRE RATING AND THE PENETRATIONS WERE NOT FIRE SEALED; THIS CONDITION DID NOT PROVIDE A 3 HR BARRIER BETWEEN REDUNDANT SAFETY RELATED AREAS. AS A TEMPORARY SOLUTION, THE PIPE WAS CUT AT THE WALLS AND THE PENETRATIONS WERE FIRE SEALED. THE PIPE WILL BE REPLACED DURING THE NEXT REFUEL OUTAGE. CORRESPONDING PROCEDURES WERE CHANGED TO COMPENSATE FOR THE LOSS OF THE DRAIN PIPE. ALL PLANT DESIGN CHANGES PRESENTLY CONSIDER FIRE PROTECTION EFFECTS AS PART OF THE CHANGE PROCESS.

[145] MONTICELLO DOCKET 50-263 LER 84-023
 INADVERTENT START OF NO. 12 DIESEL GENERATOR.
 EVENT DATE: 062184 REPORT DATE: 072084 NSSS: GE TYPE: BWR

(NSIC 190599) INACCURATE INSTRUCTIONS FOR ISOLATING A SIDE RESIDUAL HEAT REMOVAL SERVICE WATER (RHRSW) PUMP MOTOR'S DC CONTROL POWER RESULTED IN THE DE-ENERGIZATION OF THE OFFSITE SOURCE UNDERVOLTAGE RELAY CAUSING THE FAST START OF NO. 12 EMERGENCY STANDBY DIESEL GENERATOR. ISOLATION WAS IMMEDIATELY REMOVED AND THE DIESEL FAST START RELAY RESET. NO. 12 EMERGENCY STANDBY DIESEL GENERATOR WAS SHUT DOWN. NO. 11 EMERGENCY STANDBY DIESEL GENERATOR WAS OUT OF SERVICE AT THE TIME FOR ROUTINE RELAY MAINTENANCE. ISOLATION INSTRUCTION WAS PUT ON HOLD UNTIL CHANGES WERE MADE TO PREVENT A SIMILAR EVENT. A WARNING INSTRUCTION HAS BEEN PLACED ON THE DC CONTROL BREAKER TO PREVENT ITS INADVERTENT OPENING AND START OF THE EMERGENCY STANDBY DIESEL GENERATORS. ALSO, MODIFICATIONS ARE TO BE MADE TO THE EMERGENCY STANDBY DIESEL GENERATOR START LOGIC THAT WILL REDUCE THE NUMBER OF INITIATION SIGNALS TO THE DIESELS, INCLUDING THE REMOVAL OF THE OFFSITE SOURCE UNDERVOLTAGE SIGNAL.

[146] NINE MILE POINT 1 DOCKET 50-220 LER 84-012
 DIESEL GENERATOR START WHEN BACK FEEDING POWERBOARD 102 FROM POWERBOARD 16.
 EVENT DATE: 060184 REPORT DATE: 070184 NSSS: GE TYPE: BWR

(NSIC 190505) ON JUNE 1, 1984, DURING A REFUELING OUTAGE, WORK WAS TO BE DONE ON BREAKER R1012, WHICH SUPPLIES 4160 VOLT POWERBOARD 102. THIS MADE IT NECESSARY TO BACKFEED POWERBOARD 102 THROUGH 600 VOLT POWERBOARD 16. BREAKER R1012 WAS OPENED IN PREPARATION FOR THIS MAINTENANCE. IMMEDIATELY THEREAFTER, NEW PROTECTIVE RELAYS SENSED UNDERVOLTAGE ON 4160 VOLT POWERBOARD 102. AS A RESULT, TIE BREAKER R1042 TRIPPED, AND DIESEL GENERATOR 102 STARTED AT APPROXIMATELY 1000 HRS. THE UNDERVOLTAGE CONDITION EXPERIENCED ON 4160 VOLT POWERBOARD 102 WAS DUE TO THE COMBINATION OF THE VOLTAGE DROPS ASSOCIATED WITH THE BACKFEEDING PROCESS AND THE NEW 4160 VOLT POWERBOARD 102 PROTECTIVE RELAY SETTINGS (WHICH ARE CONSIDERABLY HIGHER THAN PREVIOUSLY SET). IMMEDIATE CORRECTIVE ACTION TAKEN INCLUDED RETURNING TO THE NORMAL 115K VOLT SUPPLY ON POWERBOARD 102. OPERATING PROCEDURES ARE BEING REVIEWED TO DETERMINE IF ANY PROCEDURAL CHANGES ARE REQUIRED WHICH WILL PREVENT THIS TYPE OF EVENT FROM OCCURRING IN THE FUTURE.

[147] NINE MILE POINT 1 DOCKET 50-220 LER 84-010
 REACTOR SCRAM DURING SURVEILLANCE TEST.
 EVENT DATE: 060884 REPORT DATE: 070984 NSSS: GE TYPE: BWR

(NSIC 190644) DURING A REFUELING OUTAGE, A REFUELING SURVEILLANCE TEST WAS BEING PERFORMED. IN THE COURSE OF TESTING A FULL LOAD PICK UP OF AN EMERGENCY DIESEL POWER SUPPLY, REACTOR PROTECTION SYSTEM (RPS) CHANNEL 11 POWER SUPPLY BUS EXPERIENCED A MOMENTARY POWER LOSS, CAUSING THE "LOW CONDENSER VACUUM-MAIN STEAM ISOLATION VALVE (MSIV) CLOSURE SCRAM BYPASS BELOW 600 PSIG" RELAYS TO DEENERGIZE. SINCE THE 600 PSIG BYPASS IS A NONCOINCIDENT LOGIC SIGNAL, RPS CHANNELS 11 AND 12 TRIPPED AS A RESULT OF THIS POWER LOSS, INITIATING AN AUTOMATIC REACTOR SCRAM. THE MOMENTARY POWER LOSS WAS ATTRIBUTED TO A DC SPEED CONTROL IN MOTOR GENERATOR SET 162 BEING OUT OF ADJUSTMENT. THE CHANNEL 11 POWER SUPPLY BUS AUTOMATICALLY REENERGIZED AFTER THE LOSS OCCURRED. THE DC SPEED CONTROL WAS ADJUSTED AND HAS SINCE BEEN OPERATING NORMALLY. THE SCRAM SIGNAL WAS RESET AFTER CAREFUL ANALYSIS AND EVALUATION OF THE SCRAM, AND THE SURVEILLANCE TEST WAS SUCCESSFULLY COMPLETED.

[148] NINE MILE POINT 1 DOCKET 50-220 LER 84-013
 COMPLETION OF REACTOR SHUTDOWN DUE TO INOPERABLE MAIN STEAM ELECTROMATIC VALVES.
 EVENT DATE: 061484 REPORT DATE: 071384 NSSS: GE TYPE: BWR
 VENDOR: DRESSER INDUSTRIAL VALVE & INST DIV

(NSIC 190590) DURING STARTUP AFTER THE RECENT REFUELING OUTAGE ON JUN 14, 1984, CYCLIC SURVEILLANCE TEST N1-ST-C2, "MANUAL OPENING OF THE SOLENOID ACTUATED PRESSURE RELIEF VALVES AND FLOW VERIFICATION," WAS BEING PERFORMED. DURING THE TEST, 4 OF THE PLANT'S 6 MAIN STEAM LINE SOLENOID ACTUATED RELIEF VALVES WERE TESTED. 3 OF THESE VALVES FAILED TO OPERATE PROPERLY; 2 VALVES STUCK OPEN, AND THE 3RD VALVE BLEW FUSES AND FAILED TO OPEN WHEN IT WAS TESTED. WIRES LOCATED INSIDE THE PILOT VALVE ASSOCIATED WITH THE BLOWN FUSES PREVENTED THE MOVEMENT OF THE SHORTING BAR CAUSING THE FUSES TO BLOW WHEN THE RELIEF VALVE WAS TESTED. THESE WIRES WERE RELOCATED TO ASSURE THAT THEY WOULD NOT INTERFERE WITH THE MOVEMENT OF THE SHORTING BAR. SEAT LEAKAGE IN THE PILOT VALVES ASSOCIATED WITH THE STUCK OPEN RELIEF VALVES WAS SUSPECTED AS HAVING CAUSED THE MAIN RELIEF VALVES TO STICK OPEN AFTER TESTING. MAINTENANCE WORK WAS PERFORMED ON THESE PILOT VALVES TO CORRECT THE SEAT LEAKAGE ON EACH. ALL 4 MAIN RELIEF VALVES WERE THEN MANUALLY STROKED SUCCESSFULLY TO INSURE THAT THEY ALL MOVED FREELY. THE SURVEILLANCE TEST WAS THEN PERFORMED A 2ND TIME ON ALL 6 RELIEF VALVES ON JUN 17, 1984. 5 RELIEF VALVES LEAKED PAST THEIR SEATS AFTER TESTING DUE TO MATERIAL LODGING IN THE SEAT AREA OF EACH VALVE, AND ANOTHER RELIEF VALVE, 121, STUCK OPEN DUE TO MATERIAL PLUGGING THE PILOT VALVE GUIDE OPENINGS. THIS 2ND INCIDENT IS REPORTED IN LER 84-14.

[149] NINE MILE POINT 1 DOCKET 50-220 LER 84-014
 COMPLETION OF REACTOR SHUTDOWN DUE TO INOPERABLE ELECTROMATIC RELIEF VALVES.
 EVENT DATE: 061784 REPORT DATE: 071784 NSSS: GE TYPE: BWR
 VENDOR: DRESSER INDUSTRIAL VALVE & INST DIV

(NSIC 190645) DURING STARTUP ON JUNE 17, 1984 (AFTER THE RECENTLY COMPLETED REACTOR SHUTDOWN, WHICH OCCURRED ON JUNE 14, 1984 AND WAS REPORTED IN LER 84-13), CYCLIC SURVEILLANCE TEST N1-ST-C2, "MANUAL OPENING OF THE SOLENOID-ACTUATED PRESSURE RELIEF VALVES AND FLOW VERIFICATION," WAS BEING PERFORMED ON ALL SIX OF THE PLANT'S SOLENOID-ACTUATED PRESSURE RELIEF VALVES. THESE RELIEF VALVES RECENTLY HAD MAINTENANCE PERFORMED ON THEM AFTER THEY INITIALLY FAILED THE SURVEILLANCE TEST ON JUNE 14, 1984. DURING THIS SECOND TEST, AT APPROXIMATELY 0625 HRS, ONE RELIEF VALVE (#121) FAILED TO CLOSE AND THREE (#112, 113, AND 123) EXHIBITED SEAT LEAKAGE AFTER SUCCESSFUL TESTING. THE MANUAL BLOCKING VALVE FOR #121 WAS CLOSED TO LIMIT REACTOR BLOWDOWN. A REACTOR SHUTDOWN WAS COMPLETED IN ACCORDANCE WITH THE PLANT'S TECH SPECS IMMEDIATELY AFTER THE EVENT OCCURRED. WORK REQUESTS WERE ISSUED TO PERFORM NECESSARY MAINTENANCE ON THE RELIEF VALVES TO RESTORE THEM TO AN OPERABLE STATUS. WHILE PERFORMING MAINTENANCE ON THE FOUR VALVES (#112, 113, 121, AND 123) MATERIAL WAS FOUND IN THE MAIN VALVE SEATS AND PILOT VALVE GUIDE OPENINGS. BASED ON THIS, A DECISION WAS MADE TO CLEAN AND OVERHAUL ALL SIX PILOT AND MAIN VALVES. THE VALVES WERE RESTORED TO AN OPERABLE STATUS AND SUCCESSFULLY TESTED ON JUNE 22, 1984.

[150] NORTH ANNA 2 DOCKET 50-339 LER 84-006
 EMERGENCY SWITCHGEAR ROOM FIRE DETECTION SYSTEM OUT OF SERVICE GREATER THAN 14 DAYS.
 EVENT DATE: 060884 REPORT DATE: 071284 NSSS: WE TYPE: PWR

(NSIC 190624) ON JUN 8, 1984, THE FIRE DETECTION SYSTEM FOR THE UNIT 2 EMERGENCY SWITCHGEAR ROOM WAS REMOVED FROM SERVICE TO ACCOMMODATE THE INSTALLATION OF ADDITIONAL SMOKE DETECTORS BY DESIGN CHANGE 83-9. THIS DESIGN CHANGE WAS THE RESULT OF THE NORTH ANNA 10CFR50 APPENDIX R REVIEW. A FIRE WATCH WAS INITIATED AS PER DESIGN CHANGE 83-18 AND IN ACCORDANCE WITH THE LIMITING CONDITION OF OPERATION OF TECH SPEC 3.3.3.7. THE UNIT 2 EMERGENCY SWITCHGEAR ROOM FIRE DETECTION SYSTEM WAS RETURNED TO SERVICE ON JUNE 28, 1984 UPON COMPLETION OF PARTS OF DESIGN CHANGE 83-18 PERTAINING TO THE EMERGENCY SWITCHGEAR ROOM. UNTIL THAT TIME A PERMANENT FIRE WATCH WAS IN PLACE TO PROVIDE ADEQUATE WARNING OF FIRE IN THE AREA.

[151] NORTH ANNA 2 DOCKET 50-339 LER 84-005
 MAIN FEEDWATER CONTROL VALVE FAILURE CAUSES REACTOR TRIP.
 EVENT DATE: 062584 REPORT DATE: 071284 NSSS: WE TYPE: PWR
 VENDOR: COPES-VULCAN, INC.
 WESTINGHOUSE ELECTRIC CORP.

(NSIC 190739) ON JUN 25, 1984, AT 1328 WITH UNIT 2 AT 100% POWER AN AIR SUPPLY LINE TO THE 'A' SG MAIN FEEDWATER CONTROL VALVE FAILED CAUSING THE VALVE TO FAIL SHUT. 13 SECONDS LATER A UNIT 2 REACTOR TRIP OCCURRED IN RESPONSE TO AN 'A' SG LOW LEVEL COINCIDENT WITH STEAM FLOW FEED FLOW MISMATCH SIGNAL. IMMEDIATELY AFTER THE TRIP AN AUTOMATIC STATION SERVICE LOAD SHED INITIATION STRIPPED ALL NONESSENTIAL LARGE STATION SERVICE LOADS INCLUDING THE MAIN FEEDWATER AND CONDENSATE PUMPS. THE AUX FEEDWATER PUMPS CONTINUED TO SUPPLY THE SG'S. THE LOAD SHED WAS ENABLED ALTHOUGH PLANT CONDITIONS DID NOT REQUIRE IT TO BE ENABLED. PROCEDURES WILL BE REVISED TO PREVENT RECURRENCE. ALTHOUGH LOAD SHED COMPLICATED TRIP RECOVERY, IT DID NOT SIGNIFICANTLY AFFECT TRIP RECOVERY. THE AIR LINES TO ALL MAIN FEEDWATER CONTROL VALVES WERE REPLACED. THE 'B' REACTOR TRIP BREAKER FAILED TO CLOSE DURING STARTUP PREPARATIONS. A BREAK R RELAY ARM, WHICH AFFECTED CLOSING ACTION ONLY, WAS ADJUSTED AND THE BREAKER CLOSED. UNIT 2

WAS PLACED ON LINE AT 1702 ON JUN 26, 1984 AND WAS OPERATING AT 100% POWER BY 0410 ON JUN 27, 1984.

[152] OCONEE 3 DOCKET 50-287 LER 84-003
 REACTOR TRIP PRECEDED BY UNIT RUNBACK DUE TO INSTRUMENTS MALFUNCTIONING.
 EVENT DATE: 060784 REPORT DATE: 070984 NSSS: BW TYPE: PWR

(NSIC 190713) ON JUN 7, 1984 AT 1321 HRS A UNIT 3 TRIP WAS INITIATED BY THE REACTOR PROTECTION SYSTEM (RPS) ON AN ERRONEOUS, INDICATED LOSS OF BOTH FEEDWATER PUMPS. THE TRIP OCCURRED AT APPROX 20% POWER FOLLOWING A SUCCESSFUL UNIT RUNBACK FROM 100% FULL POWER. THE RUNBACK WAS CAUSED BY AN ERRONEOUS, INDICATED LOSS OF GENERATOR STATOR COOLANT. THE TRIP OCCURRED WHEN THE '3A' FEEDWATER PUMP (FWP) WAS MANUALLY TRIPPED AS CALLED FOR BY PROCEDURE. INDICATION OF LOSS OF BOTH FWPS CAUSED THE RPS TO TRIP THE REACTOR. THE '3B' FWP WAS OPERATING DESPITE THE INDICATION OF BEING TRIPPED. THE CAUSE OF THE REACTOR TRIP IS NOT KNOWN SINCE NEITHER A COMPONENT FAILURE/MALFUNCTION NOR OTHER APPARENT CAUSE COULD BE FOUND TO EXPLAIN WHY INDICATIONS INACCURATELY REFLECTED THAT THE '3B' FWP HAD TRIPPED. THE UNIT WAS IMMEDIATELY STABILIZED AT HOT SHUTDOWN AND AN IMPROPER THERMOSTAT SETPOINT WHICH CAUSED THE UNIT RUNBACK WAS PROPERLY SET. THE PLANT RESPONSE WAS AS EXPECTED. THERE WERE NO RELEASES OF RADIOACTIVITY. THE UNIT WAS RESTARTED BUT SUBSEQUENTLY TRIPPED DURING POWER ESCALATION. SEE LER #287/84-04 DATED JUL 9, 1984.

[153] OCONEE 3 DOCKET 50-287 LER 84-004
 ANTICIPATORY REACTOR TRIP DUE TO INSTRUMENTS MALFUNCTIONING.
 EVENT DATE: 060784 REPORT DATE: 070984 NSSS: BW TYPE: PWR

(NSIC 190663) ON JUN 7, 1984 AT 2233 HRS, UNIT 3 EXPERIENCED AN APPARENT REACTOR PROTECTIVE SYSTEM (RPS) TURBINE GENERATOR/REACTOR (TG/RX) ANTICIPATORY TRIP FROM APPROX 20% FULL POWER (FP). THE TRIP OSTENSIBLY ORIGINATED IN THE RPS WHEN THE RG/RX CONTACT BUFFERS TRIPPED WITH AT LEAST 2 RPS CHANNEL BISTABLES ASSOCIATED WITH THE TG/RX ANTICIPATORY TRIP CIRCUITRY NOT BYPASSED. THERE IS NO EVIDENCE THAT AN ACTUAL TURBINE TRIP OCCURRED TO INITIATE THE EVENT. THE UNIT WAS STABILIZED AT HOT SHUTDOWN CONDITIONS. INVESTIGATION INTO THE CAUSE OF THE TRIP AND TESTING OF THE RPS CIRCUIT AFTER THE TRIP FAILED TO FIND ANY MALFUNCTIONING EQUIPMENT OR ANY OTHER REASON FOR THE TRIP. THE PLANT RESPONSE FOLLOWING THE TRIP WAS AS EXPECTED. THERE WERE NO RELEASES OF RADIOACTIVITY. THE UNIT WAS RESTARTED AND REACHED 100% FULL POWER AT 1240 HRS ON JUN 9, 1984.

[154] OYSTER CREEK DOCKET 50-219 LER 84-011
 STANDBY GAS TREATMENT SYSTEMS I AND II SIMULTANEOUSLY INOPERABLE.
 EVENT DATE: 052784 REPORT DATE: 062684 NSSS: GE TYPE: BWR

(NSIC 190538) BOTH TRAINS OF THE STANDBY GAS TREATMENT SYSTEM (SGTS) WERE RENDERED INOPERABLE FOR NINE (9) MINUTES WHILE PERFORMING PREVENTIVE MAINTENANCE ON A CIRCUIT BREAKER. THE MAINTENANCE REQUIRED THAT THE CIRCUIT BREAKER FOR A MOTOR CONTROL CENTER BE RACKED OUT, WHICH SECURED POWER TO THE EMERGENCY EXHAUST FAN AND THE INLET, OUTLET AND ORIFICE VALVES OF SGTS II. THIS MADE SGTS II INOPERABLE. THE THREE (3) VALVES IN THE SGTS II FAILED OPEN DUE TO THE LOSS OF POWER, WHICH PERMITS RECIRCULATION FLOW UPON INITIATION OF SGTS I. THIS CAUSED SGTS I TO ALSO BE CONSIDERED INOPERABLE. THE EVENT OCCURRED DUE TO OPERATIONS PERSONNEL MISUNDERSTANDING OF THE EXTENT OF THE TEMPORARY CHANGE ASSOCIATED WITH PLANT MAINTENANCE INVOLVING THE SGTS. A VIOLATION OF THE TECH SPECS RESULTED, REQUIRING THAT AT LEAST ONE TRAIN OF THE SGTS BE OPERABLE WHEN SECONDARY MAINTENANCE IS REQUIRED. BOTH TRAINS OF THE SGTS WERE RETURNED TO SERVICE BY RESETTING THE CIRCUIT BREAKER, AS PLANNED, IN THE SWITCH GEAR LOCATION OF THE CIRCUIT BREAKER REMOVED FOR MAINTENANCE. A PLANT MODIFICATION IS IN PROGRESS TO PREVENT THIS PROBLEM IN THE FUTURE.

[155] OYSTER CREEK DOCKET 50-219 LER 84-015
 HFA RELAY WINDOW FOGGING WITH UNDETERMINED SUBSTANCE.
 EVENT DATE: 060784 REPORT DATE: 070684 NSSS: GE TYPE: BWR

(NSIC 190642) GPUN CONSIDERS THIS ISSUE TO BE OF POTENTIALLY GENERIC IMPORTANCE. SINCE NO FAILURES OR EVENTS REQUIRING SPECIFIC REPORTING HAVE OCCURRED, THIS REPORT SHOULD BE CONSIDERED VOLUNTARY. ON JAN 25, 1984, WINDOW FOGGING OF A NUMBER OF HFA RELAYS WERE FOUND. 58 RELAYS OUT OF 68 WITH DATE CODE HW INSTALLED IN THE REACTOR PROTECTION SYSTEM WHEN ENERGIZED BEGAN TO FOG UP WITH AN UNKNOWN OILY VAPOR WITHIN THE ENCLOSED PORTION OF THE RELAY. THE OTHER 10 WERE NOT ENERGIZED. GE WAS NOTIFIED OF THIS CONDITION AND ASKED TO PROVIDE OYSTER CREEK WITH A SOLUTION. NEW RELAYS WERE SUPPLIED TO OYSTER CREEK. TWO NEW RELAYS WITH DATE CODE EX WERE INSTALLED AND ENERGIZED ON JUN 9, 1984 AND FOGGING WAS NOTICED JUN 25, 1984. GE HAS BEEN NOTIFIED THAT FURTHER TESTING IS REQUIRED TO DETERMINE THE CAUSE AND SOLUTION TO THE PROBLEM.

[156] OYSTER CREEK DOCKET 50-219 LER 84-016
 FAILURE TO FUNCTIONALLY TEST ALL EXCESS FLOW CHECK VALVES.
 EVENT DATE: 062584 REPORT DATE: 072484 NSSS: GE TYPE: BWR

(NSIC 190643) ON MON, JUN 25, 1984, DURING A REVIEW OF INSTRUMENT SURVEILLANCE PROCEDURES, IT WAS DISCOVERED THAT NOT ALL 60 INSTALLED EXCESS FLOW CHECK VALVES HAD BEEN FUNCTIONALLY TESTED AS REQUIRED BY TECH SPECS. THE SURVEILLANCE PROCEDURE WHICH DICTATES THE EXCESS FLOW CHECK VALVE FUNCTIONAL TEST METHOD CANNOT BE EXECUTED ON VALVES WHICH ARE TYPICALLY CONNECTED TO LOW FLOW SENSING LINES SUCH AS RECIRCULATION PUMP SEAL PRESSURE LINES. CERTAIN EXCESS FLOW CHECK VALVES COULD NOT BE SEATED DURING FUNCTIONAL TEST SURVEILLANCES DUE TO INSUFFICIENT FLOW. THESE SURVEILLANCES FOR 11 EXCESS FLOW CHECK VALVES WERE REVIEWED BY SUPERVISORY PERSONNEL AND ACKNOWLEDGED AS COMPLETE WITH NO INDICATION OF ANY VIOLATION OF TECH SPEC REQUIREMENTS. THE FUNCTIONAL TEST SURVEILLANCE IS BEING REVISED TO TEST ONLY THOSE VALVES WHICH WOULD NORMALLY HAVE SUFFICIENT FLOW AT HYDROSTATIC TEST PRESSURE. A MODIFICATION TO LOW FLOW CHECK VALVE LINES IS BEING EVALUATED AND A NEW SURVEILLANCE PROCEDURE WILL BE DEVELOPED TO SATISFY THE FUNCTIONAL TEST REQUIREMENT FOR CHECK VALVES IN THESE LOW FLOW LINES.

[157] OYSTER CREEK DOCKET 50-219 LER 84-017
 PRIMARY CONTAINMENT ISOLATION VALVES INADVERTENTLY REPOSITIONED.
 EVENT DATE: 052784 REPORT DATE: 072684 NSSS: GE TYPE: BWR

(NSIC 190786) A MODIFICATION WAS IN PROGRESS WHICH INVOLVED PLANT COMPUTER SYSTEM TIE-INS. DURING THE PERFORMANCE OF A PROCEDURE WHICH INVOLVED THE TIE-IN OF COMPUTER WIRING TO EXISTING PLANT CIRCUITRY, A NEUTRAL ELECTRICAL LEAD WAS REQUIRED TO BE LIFTED. THIS ACTION CAUSED 15 PRIMARY CONTAINMENT ISOLATION VALVES, INCLUDING ALL FOUR MAIN STEAM ISOLATION VALVES, TO REPOSITION. THE PLANT ALSO EXPERIENCED A HALF SCRAM AT APPROX. THE SAME TIME THAT THESE VALVES CYCLED. THE PREVIOUSLY LIFTED NEUTRAL ELECTRICAL LEAD AND A FUSE PREVIOUSLY REMOVED WERE RE-INSTALLED. THE PRIMARY CONTAINMENT ISOLATION VALVES WHICH REPOSITIONED WERE THEN PLACED IN THEIR PROPER POSITIONS BY OPERATOR ACTION. AN INTERMEDIATE RANGE MONITOR BELIEVED TO HAVE CAUSED THE HALF-SCRAM WAS RANGED UP-SCALE, AND THE NEUTRAL ELECTRICAL LEAD WAS ONCE AGAIN LIFTED. THE RESULTS WERE THE SAME AS BEFORE, EXCEPT THAT NO HALF-SCRAM OCCURRED. PLANT CONDITIONS WERE RESTORED TO NORMAL. NO VIOLATION OF THE TECH SPECS OCCURRED SINCE PRIMARY CONTAINMENT INTEGRITY WAS NOT REQUIRED AT THE TIME OF THE INCIDENT. THE VALVES REPOSITIONED DUE TO AN ABNORMAL CURRENT FLOWPATH WHICH WAS ESTABLISHED THROUGH THEIR SOLENOIDS WHEN THE NEUTRAL LEAD WAS LIFTED. A MODIFICATION OF THE NEUTRAL WIRING CONFIGURATION AND A CHECK OF THE PLANT SAFETY CIRCUITS FOR SIMILAR PROBLEMS WILL BE CONDUCTED. ALSO, SPECIFIC CAUTIONS FOR LIFTING NEUTRAL LEADS WILL BE INCORPORATED INTO STATION ADMINISTRATIVE PROCEDURES.

[158] PALISADES DOCKET 50-255 LER 84-006
 RADIOACTIVE WASTE SHIPMENT RECEIPT NOT RECEIVED.
 EVENT DATE: 061284 REPORT DATE: 062884 NSSS: CE TYPE: PWR

(NSIC 190543) ON MAY 23, 1984, RADIOACTIVE SHIPMENT #84-035-S LEFT THE PALISADES NUCLEAR PLANT, EN ROUTE TO RICHLAND, WASHINGTON, FOR BURIAL AT THE U.S. ECOLOGY HANFORD RESERVATION. ON THE TWENTIETH DAY AFTER SHIPMENT, JUNE 12, 1984, HAVING RECEIVED NO ACKNOWLEDGEMENT OF RECEIPT OF THE WASTE SHIPMENT FROM THE LAND DISPOSAL FACILITY, THE PALISADES NUCLEAR PLANT BEGAN AN INVESTIGATION, PER THE REQUIREMENTS OF 10 CFR 20.311(H)(1). ON JUNE 12, 1984, U.S. ECOLOGY WAS NOTIFIED THAT AN ACKNOWLEDGEMENT OF RECEIPT OF THE WASTE SHIPMENT HAD NOT BEEN RECEIVED. A TRACE OF THE SHIPMENT WAS INITIATED. ON THE FOLLOWING DAY, JUNE 13, 1984, A REPRESENTATIVE FROM THE LAND DISPOSAL FACILITY CONFIRMED THAT THE WASTE SHIPMENT HAD BEEN RECEIVED AND BURIED ON MAY 29, 1984; HOWEVER, THE WRITTEN ACKNOWLEDGEMENT WAS NOT TRANSMITTED TO THE PALISADES NUCLEAR PLANT AS REQUIRED. SUBSEQUENTLY, ON JUNE 18, 1984, WRITTEN ACKNOWLEDGEMENT FOR RADIOACTIVE SHIPMENT #84-035-S WAS RECEIVED, CONCLUDING THE INVESTIGATION. THE REQUIREMENTS OF 10 CFR 20.311(H)(1) AND (2) ARE CONSIDERED TO BE FULFILLED BY SUBMISSION OF THIS REPORT.

[159] PALISADES DOCKET 50-255 LER 84-007
 SPURIOUS LOW TEMPERATURE OVERPRESSURE PROTECTION (LTOP) ACTUATIONS.
 EVENT DATE: 062284 REPORT DATE: 072084 NSSS: CE TYPE: PWR

(NSIC 190704) ON JUN 22, 1984, WITH THE PLANT IN COLD SHUTDOWN, WORK ON A PRESSURE INDICATOR INADVERTENTLY CAUSED A NUMBER OF SPURIOUS ACTUATIONS OF THE LOW TEMPERATURE OVERPRESSURE PROTECTION SYSTEM (LTOP). NO ACTUAL PCS PRESSURE TRANSIENT OCCURRED. THE IMPORTANCE OF COMMUNICATING THE POTENTIAL TO INITIATE SPURIOUS SIGNALS DURING WORK ON ASSOCIATED INSTRUMENTS WILL BE EMPHASIZED TO THE APPROPRIATE PERSONNEL.

[160] PEACH BOTTOM 2 DOCKET 50-277 LER 84-010
 JET PUMP INSTRUMENTATION LINE CRACK.
 EVENT DATE: 060784 REPORT DATE: 070684 NSSS: GE TYPE: BWR

(NSIC 190602) ON JUNE 7, 1984, WITH UNIT 2 SHUT DOWN FOR A REFUELING AND MAJOR MODIFICATION OUTAGE, A THROUGH-WALL CRACK WAS DISCOVERED IN THE "A" LOOP JET PUMP INSTRUMENTATION PENETRATION REDUCER TO SAFE END WELD. ULTRASONIC EXAMINATIONS WERE PERFORMED ON FIVE WELDS ASSOCIATED WITH EACH JET PUMP INSTRUMENTATION PENETRATION. A CRACK-LIKE INDICATION ORIENTED CIRCUMFERENTIALLY WAS DISCOVERED IN THE REDUCER TO SAFE END WELD ON ONLY THE "A" LOOP JET PUMP INSTRUMENTATION PENETRATION.

[161] PEACH BOTTOM 2 DOCKET 50-277 LER 84-013
 INOPERABILITY OF DIESEL AND MOTOR DRIVEN FIRE PUMPS.
 EVENT DATE: 062984 REPORT DATE: 071384 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: PEACH BOTTOM 3 (BWR)

(NSIC 190712) AT APPROX 5:00 PM ON JUN 29, 1984, WITH UNIT 2 IN THE COLD SHUTDOWN CONDITION AND UNIT 3 OPERATING AT 100% POWER, THE DIESEL DRIVEN FIRE PUMP AUTOMATICALLY STARTED. THE MOTOR DRIVEN FIRE PUMP WAS RUNNING AT THIS TIME FOR FIRE SYSTEM TESTING. AT THE SAME TIME, THE CONTROL ROOM RECEIVED REPORTS OF FLOODING AT ELEVATION 116' OF THE TURBINE BLDG. INVESTIGATION REVEALED THAT THERE WAS A BREAK IN AN ELBOW IN THE FIRE HEADER AT THAT LOCATION. BOTH FIRE PUMPS WERE REMOVED FROM SERVICE SO THAT THE AFFECTED PORTION OF THE FIRE HEADER COULD BE ISOLATED. A CONTINUOUS FIRE WATCH WAS POSTED IN THE AREA OF THE SPRINKLER HEADS FED FROM THE ISOLATED PORTION OF THE FIRE HEADER. THE DIESEL FIRE PUMP WAS RETURNED TO SERVICE 1 HR AND 10 MINS LATER. THE MOTOR DRIVEN FIRE PUMP WAS TESTED AND DECLARED OPERABLE ABOUT 12:30 AM ON JUN 30, 1984, AFTER REPAIRING ITS

DISCONNECT SWITCH WHICH WAS BROKEN WHILE SHUTTING OFF THE PUMP. THE ELBOW WAS REPLACED AND THE FIRE PROTECTION SYSTEM WAS ENTIRELY RETURNED TO SERVICE WITHIN 24 HRS FROM THE TIME OF THE OCCURENCE.

[162] PEACH BOTTOM 3 DOCKET 50-278 LER 84-007
 HPCI SYSTEM INOPERABILITY.
 EVENT DATE: 060284 REPORT DATE: 070284 NSSS: GE TYPE: BWR

(NSIC 190507) ON JUNE 2, 1984, AT APPROXIMATELY 8:05 A.M., WITH UNIT 3 AT ZERO PERCENT POWER LEVEL, THE HIGH PRESSURE COOLANT INJECTION (HPCI) SYSTEM WAS MADE INOPERABLE FOR MAINTENANCE WORK WITH THE REACTOR PRESSURE GREATER THAN 105 PSIG. AT THE TIME OF THE EVENT, RCIC WAS OUT-OF-SERVICE DUE TO THE INOPERABILITY OF THE INBOARD ISOLATION VALVE. IN LESS THAN 2 HOURS TIME, THE REACTOR PRESSURE WAS REDUCED BELOW 105 PSIG AND HPCI WAS NO LONGER REQUIRED BY TECH SPECS TO BE OPEWABLE. UNIT 3 WAS IN THE PROCESS OF BEING PLACED IN THE COLD SHUTDOWN CONDITION AT THE TIME OF THE EVENT AND WAS IN SUCH A CONDITION WITHIN 24 HOURS. THE CAUSE OF THE EVENT WAS THE FAILURE OF OPERATIONS PERSONNEL TO REALIZE THAT MAKING HPCI INOPERABLE WOULD LEAD TO A TECH SPEC LIMITING CONDITION FOR OPERATION. THE INDIVIDUAL INVOLVED WAS COUNSELED ON THE IMPORTANCE OF ADHERING TO TECH SPECS.

[163] PILGRIM 1 DOCKET 50-293 LER 82-036 REV 1
 UPDATE ON MAIN STEAM ISOLATION VALVE FAILURE.
 EVENT DATE: 090382 REPORT DATE: 061384 NSSS: GE TYPE: BWR
 VENDOR: ATWOOD & MORRILL CO., INC.

(NSIC 190573) ON 9/3/82, AT 75% POWER, 'D' MAIN STEAM LINE FLOW INDICATOR WENT TO ZERO. THE THREE OTHER STEAM LINE FLOWS INCREASED. OPERATORS CLOSED BOTH 'D' LINE MSIV'S IN ACCORDANCE WITH ACTION STATEMENT PER TECH SPEC 3.7.D.2. NRC WAS NOTIFIED VIA ENS. A BROKEN VALVE STEM, RESULTING FROM FATIGUE FAILURE AT A MACHINED GROOVE ON THE STEM OF 'D' MSIV HAS BEEN FOUND TO BE THE CAUSE. MODIFIED REPLACEMENT STEMS WILL BE INSTALLED IN ALL EIGHT MSIV'S DURING RFO #6 TO PRECLUDE RECURRENCE. SIMILAR EVENTS ARE REFERRED TO IN THE FOLLOWING LER'S (REF.: 78-19, 79-23, AND 79-26.)

[164] PILGRIM 1 DOCKET 50-293 LER 82-045 REV 1
 UPDATE OF DEMINERALIZER CAUSES HIGH CONDUCTIVITY IN THE RECIRCULATION WATER SYSTEM.
 EVENT DATE: 100482 REPORT DATE: 061384 NSSS: GE TYPE: BWR

(NSIC 190652) ON 10/4/82, DURING POWER INCREASE FROM HOT SHUTDOWN, REACTOR WATER CONDUCTIVITY WAS OBSERVED TO BE ABOVE TECH SPEC LIMITS. THIS EVENT WAS NOTED AFTER THE "A" CONDENSATE DEMINERALIZER WAS PLACED IN SERVICE. AT 0300, THE WATER WAS ANALYZED TO BE 20 UMHO/CM AND 4.5 PH. A PLANT SHUTDOWN WAS INITIATED AND THE NRC NOTIFIED VIA ENS. THE "A" UNIT WAS ISOLATED AND REMOVED FROM SERVICE. CAUSE OF THE EVENT HAS BEEN IDENTIFIED AS RESIN INTRUSION. DAMAGED LATERALS WERE REPLACED IN "A" COND. DEMIN., AND THE POST-STRAINER SCREEN WAS SECURED. MAXIMUM FLOW THROUGH "A" COND. DEMIN. WAS LIMITED BY PROCEDURE REVISION. NO SIMILAR EVENTS HAVE OCCURRED SINCE IMPLEMENTATION OF THE CORRECTIVE ACTION. SIMILAR EVENTS WERE PREVIOUSLY REPORTED IN PREVIOUS LER'S (REF: 82-31 AND 80-43).

[165] PILGRIM 1 DOCKET 50-293 LER 82-049 REV 1
 UPDATE ON IMPROPERLY SET MAIN STEAM LINE SAFETY VALVE.
 EVENT DATE: 110282 REPORT DATE: 072084 NSSS: GE TYPE: BWR
 VENDOR: DRESSER INDUSTRIAL VALVE & INST DIV

(NSIC 190779) ON 11/2/82, DURING STEADY STATE OPERATIONS, DOCUMENTATION REVIEW

[169] PRAIRIE ISLAND 2 DOCKET 50-306 LER 84-001
 BOTH SI SUCTION VALVES FROM RWST INADVERTENTLY OPENED.
 EVENT DATE: 061884 REPORT DATE: 071884 NSSS: WE TYPE: PWR

(NSIC 190609) DURING NORMAL OPERATION AND WITH NO. 21 BORIC ACID STORAGE TANK OUT OF SERVICE, A SAFEGUARDS LOGIC TEST WAS PERFORMED. DURING THE TEST, DUE TO A PROCEDURAL INADEQUACY, THE LOGIC FOR OPENING THE SAFETY INJECTION SUCTION VALVES FROM THE REFUELING WATER STORAGE TANK WAS SATISFIED. UPON DISCOVERY OF THE OPEN VALVES THEY WERE IMMEDIATELY CLOSED. PROCEDURES WERE REVISED TO PREVENT RECURRENCE.

[170] QUAD CITIES 2 DOCKET 50-265 LER 83-013 REV 1
 UPDATE ON CONTROL ROD UNCOUPLED.
 EVENT DATE: 090183 REPORT DATE: 061884 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190580) ON SEPTEMBER 1, 1983, AT 3:23 A.M., CONTROL ROD C-10 (10-39) WENT TO OVERTRAVEL, INDICATING A POSSIBLE UNCOUPLING, THE CONTROL ROD WAS FULLY INSERTED AND ELECTRICALLY DISARMED: SATISFYING TECH SPEC 3.3.B.1. A REVIEW SHOWED THE CONTROL ROD HAS BEEN COUPLED SINCE THE LAST UNIT SHUTDOWN. THERE WAS NO DEGRADING EFFECT ON THE SAFETY OF THE PLANT. THIS CONTROL ROD DRIVE HAS BEEN IN THE UNIT 2 REACTOR VESSEL SINCE JANUARY 1980. THE MOST PROBABLE CAUSE IS DUE TO THE ACCUMULATION OF DIRT ON THE INNER FILTER OF THE CONTROL ROD DRIVE. IF THE INNER FILTER BECOMES EMBEDDED WITH DIRT, IT CAN LIFT OFF ITS SEAT BECAUSE OF THE INCREASE IN DIFFERENTIAL PRESSURE IN THE AREA OF THE FILTER. WHEN THE FILTER LIFTS UP IT CAN PUSH UP AGAINST THE UNCOUPLING ROD ASSEMBLY CAUSING THE CONTROL ROD DRIVE TO UNCOUPLE ITSELF. THE CONTROL ROD DRIVE DISASSEMBLY AND INSPECTION CHECKLIST (QMP 600-S4) INDICATES THAT ONE-HALF OF THE INNER FILTER WAS FILLED WITH DIRT. ALSO, THE RADIATION LEVEL AT THE FILTER AREA BEFORE DISASSEMBLY WAS HIGH (6-R) INDICATING AN ACCUMULATION OF DIRT IN THE FILTERS. DURING OVERHAUL OF THE DRIVES, ALL PARTS ARE THOROUGHLY CLEANED, INCLUDING THE FILTERS, BEFORE THE REASSEMBLY PROCESS. AFTER THIS CONTROL ROD DRIVE WAS REMOVED FROM THE REACTOR VESSEL IT WAS OVERHAULED AND RETURNED TO THE STOREROOM. A NEW DRIVE, SERIAL NUMBER 12-163, WAS INSTALLED IN THE REACTOR VESSEL IN POSITION C-10 (10-39).

[171] QUAD CITIES 2 DOCKET 50-265 LER 84-005
 REACTOR IS SHUT DOWN TO REPAIR ELECTROMATIC RELIEF PILOT VALVE.
 EVENT DATE: 050984 REPORT DATE: 052284 NSSS: GE TYPE: BWR
 VENDOR: DRESSER INDUSTRIES, INC.

(NSIC 190307) DURING NORMAL UNIT STARTUP, FOLLOWING A ROUTINE MAINTENANCE OUTAGE, ELECTROMATIC RELIEF VALVE 2-203-3C WAS FOUND TO HAVE A LEAKING PILOT VALVE. RELIEF VALVE 2-203-3E ALSO HAD AN ABNORMALLY HIGH DISCHARGE LINE TEMPERATURE. EXAMINATION OF THE PILOT VALVE ASSEMBLY REVEALED STEAM CUTTING OF THE VALVE SEAT AND DISC SURFACES. THE 2-203-3C ELECTROMATIC RELIEF VALVE PILOT VALVE ASSEMBLY WAS REPLACED WITH A NEW ASSEMBLY AND, AS A PREVENTATIVE MAINTENANCE MEASURE, THE 2-203-3E ELECTROMATIC RELIEF VALVE PILOT VALVE ASSEMBLY WAS ALSO REPLACED.

[172] QUAD CITIES 2 DOCKET 50-265 LER 84-007
 UNIT SCRAM CAUSED BY #4 TURBINE CONTROL VALVE FAST CLOSURE.
 EVENT DATE: 061084 REPORT DATE: 070684 NSSS: GE TYPE: BWR
 VENDOR: NAMCO CONTROLS

(NSIC 190544) ON JUNE 10, 1984, AT 1:00 A.M., UNIT TWO WAS AT 86% CORE THERMAL POWER AND THE WEEKLY TURBINE TEST, QOS 5600-1, WAS IN PROGRESS. CONTROL VALVES 1 THROUGH 3 OPERATED PROPERLY, BUT WHEN THE TEST SWITCH FOR CONTROL VALVE #4 WAS DEPRESSED THE VALVE IMMEDIATELY FAST CLOSED. THE RESULTING PRESSURE SPIKE COLLAPSED THE VOIDS IN THE VESSEL AND A TRIP OF THE REACTOR PROTECTION SYSTEM WAS

RECEIVED DUE TO HIGH NEUTRON FLUX. IT HAS BEEN DETERMINED THAT THE 90% CLOSED LIMIT SWITCH IS REMAINING ENGAGED, CAUSING CONTACTS IN THE VALVE TEST CIRCUIT TO REMAIN CLOSED, AND THEREBY FAST CLOSING THE #4 CONTROL VALVE IN THE TEST MODE. THIS LINE AND SWITCH WILL BE EXAMINED AT THE NEXT OPPORTUNITY. UNTIL THEN, A WIRE IN THE TEST CIRCUIT OF THE #4 CONTROL VALVE HAS BEEN LIFTED TO PREVENT THIS FAST CLOSURE IN THE TEST MODE. A TEMPORARY PROCEDURE WAS INSTITUTED TO ENABLE THE WEEKLY TURBINE TEST TO BE PERFORMED WITHOUT A RECURRENCE OF THIS INCIDENT.

[173] RANCHO SECO DOCKET 50-312 LER 84-018
 REACTOR TRIP DUE TO MAIN STEAM PRESSURE SWITCHES' FAILURE.
 EVENT DATE: 060184 REPORT DATE: 062984 NSSS: BW TYPE: PWP

(NSIC 190725) ON JUN 1, 1984, RANCHO SECO WAS OPERATING AT 91.8% POWER WITH A GENERATOR OUTPUT OF 860MW. THE INTEGRATED CONTROL SYSTEM (ICS) WAS IN FULL AUTO WITH THE DELTA TC CONTROLLER IN MANUAL. AT APPROX 9:06AM, THE PLANT EXPERIENCED A TRANSIENT ON THE 'B' MAIN FEEDWATER LOOP CAUSED BY THE SPURIOUS CLOSURE OF THE 'B' MAIN FEEDWATER STARTUP AND BLOCK VALVES. AS SOON AS THE BLOCK VALVE WAS FULLY CLOSED, THE SENIOR OPERATOR REOPENED IT AND CONTROLLED THE 'B' MAIN FEEDWATER VALVE IN MANUAL. THE PLANT WAS MAINTAINED IN A STABILIZED CONDITION AT APPROX 68% POWER. AT APPROX 9:17AM, JUST AS THE OPERATOR BEGAN TO RAISE POWER, IT WAS OBSERVED THAT BOTH THE 'A' AND 'B' MAIN FEED PUMP DEMANDS RAPIDLY DROPPED TO ZERO. THE OPERATOR PLACED THE PUMPS IN MANUAL AND GAVE THEM A CONTINUOUS RAISE SIGNAL. WITH THE UNIT AT 68% POWER, HE OBSERVED THE REACTOR COOLANT DIFFERENTIAL PRESSURE (DELTA P) INCREASING WHEN THE REACTOR TRIPPED AT THE REACTOR COOLANT SYSTEM (RCS) HIGH PRESSURE TRIP SETPOINT (2300 PSI). UPON INVESTIGATION, IT WAS DETERMINED THAT THE INITIAL TRANSIENT WAS CAUSED BY A SHORT OF 2 OF 4 PRESSURE SWITCHES IN THE MAIN STEAM LINE BREAK LOGIC. THE SHORT IN THE PRESSURE SWITCHES WAS CAUSED BY A BOURDON TUBE LEAK WHICH ALLOWED WATER TO ACCUMULATE AROUND THE SWITCHES AND SHORT THEM OUT. WHEN THESE SWITCHES SHORTED, THE 'B' MAIN FEEDWATER STARTUP AND BLOCK VALVES CLOSED. THE SHORTED PRESSURE SWITCHES WERE REPLACED.

[174] ROBINSON 2 DOCKET 50-261 LER 83-005 REV 1
 UPDATE ON BOTH SERVICE WATER BOOSTER PUMPS INOPERABLE.
 EVENT DATE: 042483 REPORT DATE: 061484 NSSS: WE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190579) ON APRIL 24, 1983, AT 0710 HOURS, WITH THE UNIT AT 80% POWER, "B" SERVICE WATER BOOSTER PUMP (SWBP) WAS DECLARED INOPERABLE DUE TO LOSS OF BEARING OIL. AT 1407 HOURS ON APRIL 24, 1983, AND AGAIN AT 1501 HOURS, "A" SWBP FAILED APPARENTLY DUE TO BLOWN CONTROL POWER FUSES. A UNIT SHUTDOWN WAS THEN COMMENCED WITH HOT SHUTDOWN CONDITIONS BEING ACHIEVED AT 1759 HOURS. THESE EVENTS RESULTED IN OPERATION LESS CONSERVATIVE THAN THE LEAST CONSERVATIVE ASPECT OF A LIMITING CONDITION FOR OPERATION AS DEFINED BY TECH SPEC 3.3.4.2 AND IS REPORTED PUPSUANT TO 6.9.2.A.2. "B" SWBP FAILURE WAS DUE TO THE BEARING OIL SLINGER BEING POSITIONED NEAR THE VENT HOLE CAUSING LOSS OF BEARING OIL. "B" SWBP WAS INSPECTED, OIL REPLENISHED AND DECLARED OPERABLE AT 1925 HOURS ON APRIL 24, 1983. TO PREVENT OIL LOSS, STANDPIPES WERE INSTALLED ON EACH PUMP'S VENT HOLE. "A" SWBP FAILURE IS ATTRIBUTED TO A LOOSE CONNECTION INTERNAL TO THE MOTOR CONTACTOR. THE MOTOR CONTACTOR WAS REPLACED AND "A" SWBP WAS RETURNED TO SERVICE AT 2105 HOURS ON APRIL 25, 1983.

[175] ROBINSON 2 DOCKET 50-261 LER 84-005
 HIGH STEAM FLOW COINCIDENT WITH LOW STEAM LINE PRESSURE OR LOW TAVE NOT TESTED.
 EVENT DATE: 060884 REPORT DATE: 070684 NSSS: WE TYPE: PWR

(NSIC 190659) ON JUNE 8, 1984, WITH THE UNIT SHUT DOWN FOR A STEAM GENERATOR REPLACEMENT OUTAGE, IT WAS IDENTIFIED THAT THE CIRCUIT FOR A SAFETY INJECTION DUE TO HIGH STEAM LINE FLOW IN COINCIDENT WITH LOW STEAM LINE PRESSURE OR RCS LOW

AVERAGE TEMPERATURE WAS NOT COMPLETELY TESTED. SPECIFICALLY, THE CONTACTS FOR RELAY SL-1 WERE NOT TESTED. THE REQUIRED TESTING WILL BE COMPLETED PRIOR TO DECLARING THE ASSOCIATED EQUIPMENT OPERABLE.

[176] ROBINSON 2 DOCKET 50-261 LER 84-006
INADVERTENT SAFETY INJECTION WHILE CALIBRATING CONTAINMENT PRESSURE CHANNELS.
EVENT DATE: 062184 REPORT DATE: 072084 NSSS: WE TYPE: PWR

(NSIC 190598) WITH THE UNIT SHUT DOWN IN A STEAM GENERATOR REPLACEMENT OUTAGE AND THE FUEL IN THE SPENT FUEL PIT, A SAFETY INJECTION SIGNAL WAS RECEIVED AT 1024 HOURS ON JUNE 21, 1984. ONE INSTRUMENT CREW WAS FIELD CALIBRATING CONTAINMENT PRESSURE TRANSMITTERS WHILE ANOTHER INSTRUMENT CREW WAS CALIBRATING THE INSTRUMENT RACK PORTION OF CONTAINMENT PRESSURE TRAIN. INADEQUATE COMMUNICATION BETWEEN THE CREWS RESULTED IN A CONTAINMENT PRESSURE SAFETY INJECTION SIGNAL. THE SAFETY INJECTION PUMP BREAKERS WERE RACKED OUT, AND NO WATER WAS INJECTED.

[177] ROBINSON 2 DOCKET 50-261 LER 84-008
SETPOINT DRIFT OF CONDENSATE STORAGE TANK'S LEVEL TRANSMITTERS.
EVENT DATE: 062684 REPORT DATE: 072684 NSSS: WE TYPE: PWR
VENDOR: POLBORO CO., THE

(NSIC 190660) WITH THE UNIT IN A STEAM GENERATOR REPLACEMENT OUTAGE, AND WITH THE FUEL IN THE SPENT FUEL PIT, CONDENSATE STORAGE TANK (CST) LEVEL TRANSMITTERS, LT-1454A AND B, WERE IDENTIFIED AS OUT OF CALIBRATION. THE PROBLEM WAS IDENTIFIED BY CONTROL BOARD OBSERVATION.

[178] SALEM 1 DOCKET 50-272 LER 84-012
CHARGING/SAFETY INJECTION THROTTLING VALVES' DISKS BECOMING DETACHED FROM STEMS.
EVENT DATE: 052784 REPORT DATE: 062684 NSSS: WE TYPE: PWR
OTHER UNITS INVOLVED: SALEM 2 (PWR)
VENDOR: ROCKWELL-INTERNATIONAL

(NSIC 190545) STEM/DISK SEPARATION PROBLEMS WITH RTD LOOP BYPASS VALVES (SEE UNIT 1 LER 84-010-00 AND UNIT 2 LER 84-001-00) PROMPTED A REVIEW OF ALL SYSTEMS CONTAINING VALVES OF THIS PARTICULAR DESIGN. OF THE VALVES IDENTIFIED, TWELVE VALVES (IN EACH UNIT) USED AS SAFETY INJECTION SYSTEM FLOW THROTTLING VALVES WERE DEEMED TO HAVE SOME SAFETY CONCERNS, SHOULD SIMILAR FAILURES OCCUR. ON MAY 27, 1984, DURING A REFUELING OUTAGE OF UNIT 1, RADIOGRAPHY RESULTS REVEALED THAT THE DISK WAS BECOMING DETACHED FROM THE STEM OF 11SJ16 (CHARGING/SAFETY INJECTION TO COLD LEG THROTTLE VALVE). ON MAY 30, 1984, SIMILAR FINDINGS WERE DISCOVERED WITH 21SJ16 AND 22SJ16 (UNIT 2 VALVES). UNIT 2 WAS OPERATING AT THE TIME OF DISCOVERY, AND THE FINDINGS IMMEDIATELY PROMPTED A CONTROLLED SHUTDOWN OF THE UNIT. THE VALVE DISKS WERE FOUND TO BE PARTIALLY UNTHREADED FROM THE DISK NUT, DUE TO MISSING WELD MATERIAL WHICH SECURES THE DISK TO THE NUT. UNIT 2 VALVES (21SJ16 AND 22SJ16) WERE REPLACED IN KIND. A DESIGN CHANGE REQUEST WILL REPLACE 11 THROUGH 14SJ16 (UNIT 1 VALVES) WITH VALVES OF A DIFFERENT DESIGN DURING THE PRESENT REFUELING OUTAGE. PLANS ARE TO EVENTUALLY REPLACE ALL TWELVE THROTTLE VALVES IN EACH UNIT. THIS REPORT IS BEING SUBMITTED DUE TO THE GENERIC IMPLICATIONS INVOLVED, AND IN ACCORDANCE WITH 10CFR 50.73(A)(2)(I)(A), AND 50.73(A)(2)(V).

[179] SALEM 1 DOCKET 50-272 LER 84-013
LOSS OF ALL 4KV GROUP AND VITAL BUSES - UNITS 1 AND 2.
EVENT DATE: 060284 REPORT DATE: 070284 NSSS: WE TYPE: PWR
OTHER UNITS INVOLVED: SALEM 2 (PWR)

(NSIC 190656) ON JUN 2, 1984, POWER WAS INTERRUPTED BETWEEN THE 500 KV YARD AND

THE 13 KV BUS, RESULTING IN A LOSS OF ONSITE POWER TO THE UNIT 1 AND UNIT 2 4 KV GROUP AND VITAL BUSES. UNIT 1 WAS IN A REFUELING OUTAGE AT THE TIME WITH THE REACTOR DEFUELED, AND UNIT 2 WAS IN COLD SHUTDOWN. UNIT 2 EMERGENCY DIESELS STARTED AND LOADED IN THE BLACKOUT MODE; UNIT 1 EMERGENCY DIESELS AND 1B VITAL BUS WERE CLEARED AND TAGGED FOR MAINTENANCE. UNIT 2 RHR PUMPS WERE REMOVED FROM SERVICE BY THE SEC SEQUENCER, RESULTING IN A LOSS OF RESIDUAL HEAT REMOVAL FLOW. POWER WAS RESTORED TO ALL GROUP BUSES WITHIN THIRTY SECONDS. CONTROL OF VITAL BUS LOADS WAS REGAINED, AND RHR WAS IMMEDIATELY RESTORED. UNIT 2 VITAL BUSES WERE THEN TRANSFERRED TO STATION POWER AND THE DIESELS WERE SECURED. THE EVENT WAS THE RESULT OF A NUCLEAR CONTROL OPERATOR OPENING THE WRONG 500 KV CIRCUIT SWITCHGEAR. THIS WAS DUE TO NOT FULLY UNDERSTANDING THE SWITCHGEAR CONTROLS THAT WERE AVAILABLE TO HIM, AND NOT READING THE LABEL ON THE CONSOLE CONTROL PRIOR TO ITS OPERATION. THIS EVENT WAS AGGRAVATED BY RELAYING THE ORDER TO UNIT 2 CONTROL ROOM VIA THE UNIT 1 CONTROL ROOM NCO. THE INDIVIDUAL INVOLVED WAS COUNSELED AND REPRIMANDED FOR HIS ACTIONS ASSOCIATED WITH THE EVENT. TWO NEWSLETTER ITEMS DISCUSSED THE INCIDENT AND CAUSES. DUE TO THE LOSS OF RHR, THIS EVENT IS REPORTABLE IN ACCORDANCE WITH 10CFR 50.73(A)(2)(V)(3).

[180] SALEM 1 DOCKET 50-272 LER 84-014
 VITAL BUS BLACKOUT ACTUATION.
 EVENT DATE: 060584 REPORT DATE: 070584 NSSS: WE TYPE: PWR

(NSIC 190710) ON JUNE 5, 1984, DURING A REFUELING OUTAGE, 1A VITAL BUS WAS DEENERGIZED WHEN THE 1A VITAL BUS INFEED BREAKER FAILED TO CLOSE DURING BREAKER TESTING. SINCE 1B VITAL BUS WAS DEENERGIZED FOR INSPECTION AT THE TIME, A BLACKOUT LOADING SIGNAL STARTED 1A AND 1C DIESELS AND OPENED THE 1C VITAL BUS INFEED BREAKER, DEENERGIZING 1C VITAL BUS. 1A DIESEL LOADED, BUT BECAUSE THE 1C 125VDC BUS WAS DEENERGIZED FOR MAINTENANCE, THE 1C SAFEGUARDS EQUIPMENT CABINET (SEC) WAS COMPLETELY DEENERGIZED. THIS PREVENTED 1C DIESEL FROM LOADING. 1C VITAL BUS REMAINED DEENERGIZED, RESULTING IN A LOSS OF SERVICE WATER COOLING. NUMEROUS CONTROL ROOM INDICATORS FAILED TO MID-SCALE, LEADING THE SHIFT TO BELIEVE THAT THE 1C VITAL BUS WAS STILL ENERGIZED. AS A RESULT, THE DIESELS RAN FOR AN EXTENDED PERIOD OF TIME WITHOUT COOLING WATER; ALTHOUGH, NO DIESEL DAMAGE OCCURRED. THE ROOT CAUSE OF THIS EVENT WAS THE LACK OF ADEQUATE PROCEDURAL AND/OR ADMINISTRATIVE CONTROLS TO ENSURE SUFFICIENT ELECTRICAL SYSTEMS REMAINED IN AN OPERABLE STATUS DURING A PERIOD WHEN THE PLANT WAS IN A CONFIGURATION WHICH WAS NOT COVERED BY THE TECH SPECS (I.E., DEFUELED). NUMEROUS CORRECTIVE ACTIONS, LISTED IN THIS LER, HAVE BEEN INITIATED TO PREVENT RECURRENCE. DUE TO THE AUTOMATIC SEC ACTUATION, THIS EVENT IS REPORTABLE IN ACCORDANCE WITH 10CFR 50.73(A)(2)(IV).

[181] SALEM 1 DOCKET 50-272 LER 84-015
 INCONSISTENCY BETWEEN TECHNICAL SPECIFICATIONS AND SAFETY ANALYSIS.
 EVENT DATE: 060684 REPORT DATE: 070684 NSSS: WE TYPE: PWR

(NSIC 190600) ON JUNE 11, 1984, PSE&G RECEIVED NOTIFICATION FROM WESTINGHOUSE OF A POTENTIAL UNREVIEWED SAFETY QUESTION CONCERNING THE CONSISTENCY BETWEEN THE SAFETY ANALYSIS AND TECH SPEC 3.4.1.2. THE ISSUE IN QUESTION CONCERNS THE NUMBER OF OPERATING REACTOR COOLANT PUMPS WHEN IN MODE 3. THE TECH SPEC REQUIRES TWO OPERABLE PUMPS, ALTHOUGH ONLY ONE IS REQUIRED TO BE OPERATING. HOWEVER, THE SAFETY ANALYSIS IN THE PSAR ASSUMES THAT EITHER TWO OR ALL OF THE PUMPS ARE ACTUALLY OPERATING. THIS INCONSISTENCY, WHICH IS GENERIC IN NATURE, APPARENTLY ORIGINATED FROM STANDARD TECH SPEC 3.1.1.1 REQUIREMENTS. WESTINGHOUSE HAS REVIEWED THE APPLICABLE ACCIDENTS UNDER THE REDUCED FLOW CONDITIONS OF ONE REACTOR COOLANT PUMP. CALCULATIONS REVEAL THAT THE DNB DESIGN BASIS FOR ONLY ONE ACCIDENT (BANK ROD WITHDRAWAL FROM SUBCRITICAL) MAY NOT BE MET WHEN ONLY ONE PUMP IS IN OPERATION; ALTHOUGH, SINCE THE ACCIDENT ANALYSIS INCLUDES CONSERVATISMS, WHICH WHEN REMOVED SHOW THAT THE DNBR IS ABOVE THE LIMIT VALUE, NO SIGNIFICANT SAFETY HAZARD EXISTS. PSE&G HAS TAKEN PROCEDURAL AND ADMINISTRATIVE CONTROLS TO

ENSURE THAT WHILE IN MODE 3, WITH THE ROD CONTROL SYSTEM ENERGIZED, THERE WILL BE AT LEAST TWO REACTOR COOLANT PUMPS OPERATING. A LICENSE CHANGE REQUEST WILL BE SUBMITTED TO ENSURE CONSISTENCY BETWEEN THE TECH SPEC AND THE FSAR.

[182] SALEM 1 DOCKET 50-272 LER 84-016
LATE SUBMITTAL OF PROCEDURE CHANGE TO SORC FOR REVIEW.
EVENT DATE: 061384 REPORT DATE: 070684 NSSS: WE TYPE: PWR

(NSIC 190601) ADMINISTRATIVE PROCEDURE AP-3 (DOCUMENT CONTROL PROGRAM) AND TECH SPEC 6.8.3 REQUIRE TEMPORARY CHANGES TO PROCEDURES TO BE REVIEWED BY THE STATION OPERATIONS REVIEW COMMITTEE (SORC) AND APPROVED BY THE STATION MANAGER WITHIN FOURTEEN DAYS OF IMPLEMENTATION. CONTRARY TO THE ABOVE, A PROCEDURAL CHANGE, WRITTEN ON MAY 24, 1984 WAS SUBMITTED TO THE SORC ON JUNE 13, 1984, SIX DAYS AFTER THE FOURTEEN DAY REQUIREMENT. THIS PROCEDURE WAS REVIEWED AND ACCEPTED BY QUALITY ASSURANCE ON JUNE 6; BUT DUE TO OVERSIGHT, THE PROCEDURE CHANGE WAS SCHEDULED FOR SORC ON JUNE 13, INSTEAD OF JUNE 7, 1984. THIS OCCURRENCE WAS STRICTLY AN ADMINISTRATIVE ERROR. THE DEPARTMENT INVOLVED WAS REMINDED OF THE AP-3 AND TECH SPEC REQUIREMENTS. THE OCCURRENCE WAS ISOLATED IN NATURE, AND NO FURTHER CORRECTIVE ACTION WAS DEEMED NECESSARY. SINCE THE FOURTEEN DAY REVIEW BY SORC IS A TECH SPEC REQUIREMENT, THE INCIDENT IS REPORTABLE IN ACCORDANCE WITH 10CFR 50.73(A)(2)(I)(B).

[183] SALEM 2 DOCKET 50-311 LER 82-007 REV 1
UPDATE ON APW VALVES AND PIPE NOT SEISMIC QUALIFIED.
EVENT DATE: 021182 REPORT DATE: 022482 NSSS: WE TYPE: PWR

(NSIC 190653) ON FEBRUARY 11, 1982, IN RESPONSE TO THE NRC REQUEST FOR ADDITIONAL INFORMATION ON SEISMIC QUALIFICATION OF THE AUXILIARY FEEDWATER SYSTEM, IT WAS DISCOVERED THAT THE CHECK VALVES 1AF71 AND 1AF72 AND ASSOCIATED PIPING WERE NOT SEISMICALLY ANALYZED AND PROTECTED. AS PER TECH SPEC 6.9.1.8.I THE NRC RESIDENT INSPECTOR WAS NOTIFIED IMMEDIATELY, WITH WRITTEN NOTIFICATION SUBMITTED WITHIN 24 HOURS. A PROTECTIVE STEEL STRUCTURE WILL BE PROVIDED OFF THE SEISMIC WALL. THESE NEW STRUCTURES WILL ALSO INCORPORATE SEISMIC GUIDES FOR ADDITIONAL PROTECTION OF THESE VALVES. DCR 1EC-1404 HAS BEEN INITIATED AND ISSUED TO THE STATION TO MAKE THESE IMPROVEMENTS/ENHANCEMENTS. A SUPPLEMENTAL REPORT WILL BE SUBMITTED UPON COMPLETION.

[184] SALEM 2 DOCKET 50-311 LER 84-014
CONTAINMENT VENTILATION ISOLATION SYSTEM INOPERABLE.
EVENT DATE: 052884 REPORT DATE: 062784 NSSS: WE TYPE: PWR

(NSIC 190553) THE TECH SPECS ALLOW THE USE OF A PLANT VENT RADIOACTIVITY MONITOR IN PLACE OF A CONTAINMENT MONITOR FOR MONITORING PURGE AND PRESSURE RELIEF OPERATIONS, PROVIDED THE PLANT VENT MONITOR SETPOINTS ARE REDUCED TO THE VALUE OF THE CONTAINMENT MONITOR. ON MAY 28, 1984, A CONTAINMENT PRESSURE RELIEF WAS PERFORMED UTILIZING THE PLANT VENT GASEOUS ACTIVITY MONITOR (2R41C) IN LIEU OF THE CONTAINMENT GASEOUS ACTIVITY MONITOR (2R12A). THE CONTAINMENT ATMOSPHERE WAS SAMPLED PRIOR TO THE RELEASE, PLANT VENT SAMPLES WERE OBTAINED AND THE PLANT VENT MONITORS WERE CONTINUOUSLY MONITORED DURING THE RELEASE TO VERIFY ACTIVITY LEVELS REMAINED BELOW THE ALLOWABLE DISCHARGE LIMITS. HOWEVER, 2R41C SETPOINT WAS NOT REDUCED AS REQUIRED, RESULTING IN A CONTAINMENT VENTILATION ISOLATION SYSTEM SETPOINT WHICH WAS NOT CONSISTENT WITH THE ASSUMPTIONS USED IN THE FSAR. THIS OCCURRENCE WAS ATTRIBUTED TO THE FAILURE TO FOLLOW THE OPERATING PROCEDURE AS WRITTEN. THE PROCEDURE PROVIDES FOR THE INOPERABILITY OF A CONTAINMENT ACTIVITY MONITOR; HOWEVER, A TEMPORARY "ON-THE-SPOT" CHANGE TO THE PROCEDURE INADVERTENTLY OMITTED THE STEP WHICH REQUIRED THE 2R41C SETPOINT TO BE REDUCED. THE INDIVIDUAL INVOLVED WAS COUNSELED. IN ADDITION, A REVIEW OF THE ADMINISTRATIVE PROCEDURE WILL BE CONDUCTED FOR THE PROPER APPLICATION OF THE "ON-THE-SPOT" CHANGES.

[185] SALEM 2 DOCKET 50-311 LER 84-015
 REACTOR TRIP FROM 10% DURING UNIT SHUTDOWN OPERATIONS.
 EVENT DATE: 053084 REPORT DATE: 062984 NSSS: WE TYPE: PWR

(NSIC 190611) ON MAY 30, 1984, WHILE PERFORMING A CONTROLLED SHUTDOWN, A REACTOR TRIP OCCURRED FROM TEN PERCENT POWER. THIS REACTOR TRIP WAS INITIATED BY CHANNEL N-35 INTERMEDIATE RANGE (I.R.) HIGH FLUX CIRCUITRY. THE CAUSE WAS ATTRIBUTED TO A CONSERVATIVE I.R. HIGH FLUX TRIP BISTABLE SETPOINT OF TWENTY PERCENT RATED THERMAL POWER (VERSUS A NORMAL VALUE OF TWENTY-FIVE TO THIRTY PERCENT). THIS, COMBINED WITH AN EXCESSIVELY LARGE BISTABLE "RESET DEADBAND," RESULTED IN AN I.R. HIGH FLUX TRIP BISTABLE RESET VALUE OF APPROXIMATELY TEN PERCENT RATED THERMAL POWER. DURING THE SHUTDOWN, WHEN REACTOR POWER LEVEL REACHED TEN PERCENT, P-10 PERMISSIVE CIRCUITRY UNBLOCKED THE I.R. HIGH FLUX TRIPS. CHANNEL N-35 I.R. HIGH FLUX TRIP BISTABLE HAD NOT RESET (WAS STILL IN A TRIPPED CONDITION) RESULTING IN THE REACTOR TRIP SIGNAL. THE TRIP SETPOINTS WERE RESET TO THE CORRECT VALUES, AND THE BISTABLE RESET POINTS WERE INCREASED (WHICH DECREASED THE "RESET DEADBAND"). THE I.R. HIGH FLUX TRIP IS DESIGNED TO PROTECT THE CORE IN THE EVENT OF AN UNCONTROLLED REACTOR STARTUP. THE FAILURE OF CHANNEL N-35 TO RESET UPON DECREASING REACTOR POWER, PRIOR TO REACHING THE P-10 SETPOINT, DID NOT AFFECT THE OPERABILITY OF THE I.R. HIGH FLUX PROTECTION. DUE TO THE AUTOMATIC ACTUATION OF THE REACTOR PROTECTION SYSTEM, THIS EVENT IS REPORTABLE IN ACCORDANCE WITH 10CFR 50.73(A) (2) (IV).

[186] SAN ONOFRE 1 DOCKET 50-206 LER 84-002 REV 1
 UPDATE ON SPURIOUS STARTING OF NO. 2 DIESEL GENERATOR.
 EVENT DATE: 030984 REPORT DATE: 070984 NSSS: WE TYPE: PWR

(NSIC 190588) ON 3/9/84, AT 1003, WITH UNIT 1 IN AN EXTENDED MODE 5 OUTAGE, DURING ROUTINE TESTING OF ELECTRICAL CIRCUITS, THE NO. 2 DG SPURIOUSLY STARTED, TRIPPED ON OVERSPEED, AND WAS DECLARED INOPERABLE. SINCE NO. 1 DG WAS ALSO INOPERABLE AT THIS TIME, IN ACCORDANCE WITH LCO 3.7.II(2), NO OPERATIONS INVOLVING COKE ALTERATIONS OR POSITIVE REACTIVITY CHANGES WERE PERMITTED. THE REQUIREMENT OF LCO 3.2.A(1) TO MAINTAIN ONE CHARGING PUMP OR THE TEST PUMP OPERABLE COULD NOT BE MET SINCE NO AUTOMATIC EMERGENCY ELECTRICAL POWER SOURCE WAS AVAILABLE, HOWEVER, DG NO. 2 COULD BE STARTED MANUALLY AND, THEREFORE, THERE WAS NO LOSS OF SAFETY FUNCTION. ON 3/11/84, AT 1645, NO. 2 DG WAS DECLARED OPERABLE AND LCO 3.2.A(1) WAS SATISFIED. INVESTIGATION DETERMINED THE SPURIOUS START WAS DUE TO WIRING DISCREPANCIES UNIQUE TO NO. 2 DG. THE WIRING DISCREPANCIES CAUSED THE NO. 2 DG SEQUENCER TO EXPERIENCE A VOLTAGE TRANSIENT DURING TRIP TESTING OF AUXILIARY TRANSFORMER 'C.' WE ARE CONTINUING OUR INVESTIGATION IN AN ATTEMPT TO ESTABLISH THE SOURCE OF THE WIRING DISCREPANCIES AND WILL SUBMIT A REV. TO THIS LER. AS CORRECTIVE ACTION, THE DISCREPANT WIRING WAS CHANGED TO THE APPROPRIATE CONFIGURATION AND THE RELAY TESTING WHICH CAUSED THE SPURIOUS START, WAS REPEATED. THE SPURIOUS START DID NOT RECUR.

[187] SAN ONOFRE 1 DOCKET 50-206 LER 84-005
 LOSS OF BORIC ACID FLOW PATHS.
 EVENT DATE: 060184 REPORT DATE: 070284 NSSS: WE TYPE: PWR

(NSIC 190534) ON JUN 1, 1984, AT 1140, WITH UNIT 1 IN AN EXTENDED MODE OUTAGE, IT WAS DISCOVERED THAT THE TWO BORIC ACID FLOW PATHS REQUIRED BY TECH SPEC 3.2 WERE BLOCKED DUE TO BORIC ACID SOLIDIFICATION IN THE FLOW PATH PIPING. THE FLOW PATHS THAT WERE BLOCKED WERE FROM THE BORIC ACID STORAGE TANK TO THE CHARGING PUMPS THROUGH (1) AND THE TRANSFER PUMP AND (2) THE INJECTION PUMP. AT 1245, CHARGING PUMP SUCTION WAS SHIFTED TO THE REFUELING WATER STORAGE TANK ESTABLISHING A NEW FLOW PATH. AT 1355, A SECOND FLOW PATH WAS ESTABLISHED VIA THE TRANSFER PUMP UTILIZING A MANUAL BYPASS VALVE. BORIC ACID SOLIDIFICATION OCCURRED DUE TO THE FACT THAT HIGHLY CONCENTRATED BORIC ACID SOLUTIONS WERE BEING UTILIZED FOR A

RAPID MAKEUP OF THE REFUELING WATER STORAGE TANK WITHOUT ADEQUATE PROCEDURAL CONTROLS TO MONITOR BORIC ACID CONCENTRATIONS AND SOLUBILITY LIMITS.

[188] SAN ONOFRE 1 DOCKET 50-206 LER 84-006
CONTAINMENT FIRE PROTECTION SYSTEM INOPERABLE DURING ILRT.
EVENT DATE: 060484 REPORT DATE: 070584 NSSS: WE TYPE: PWR

(NSIC 190535) FROM 1000 ON JUN 4 TO 0940 ON JUN 8, 1984, WITH UNIT 1 IN AN EXTENDED MODE 5 OUTAGE, AN INTEGRATED LEAK RATE TEST (ILRT) WAS PERFORMED ON UNIT 1 CONTAINMENT. MANUAL FIRE SUPPRESSION SYSTEM ISOLATION VALVE CRS-041, WHICH IS NORMALLY CLOSED DURING MODES 5 AND 6 TO PREVENT INADVERTENT SYSTEM ACTUATION, REMAINED CLOSED DURING THIS TESTING. WHEN THE CONTAINMENT WAS EVACUATED AND ISOLATED TO CONDUCT THE ILRT, THIS RENDERED CRS-041 INACCESSIBLE SINCE IT IS INSIDE THE CONTAINMENT THUS RENDERING A PORTION OF THE CONTAINMENT SPRAY/SPRINKLER SYSTEM INOPERABLE. TECH SPEC 3.14.B.(2).A REQUIRES THAT A CONTINUOUS FIREWATCH WITH BACKUP FIRE SUPPRESSION BE ESTABLISHED WITHIN ONE HR IN AN UNPROTECTED AREA. BACKUP FIRE SUPPRESSION WAS ESTABLISHED PRIOR TO THE ILRT, HOWEVER, DURING THE ILRT, CONTAINMENT ACCESS WOULD HAVE BEEN IMPEDED AND THEREFORE THE CONTINUOUS FIREWATCH REQUIREMENT WAS NOT CONSIDERED SATISFIED. THE FAILURE TO OPEN MANUAL ISOLATION VALVE CRS-041 PRIOR TO THE ILRT WAS DUE TO THE OMISSION OF THIS VALVE FROM THE VALVE LINEUP CONTAINED IN PROCEDURE S01-V-1.3, "SPHERE INTEGRATED LEAK RATE TEST." THIS PROCEDURE HAS BEEN REVISED TO INCLUDE A LOCKED OPEN REQUIREMENT FOR THIS VALVE DURING THE ILRT. NO FURTHER CORRECTIVE ACTIONS ARE PLANNED.

[189] SAN ONOFRE 1 DOCKET 50-206 LER 84-007
DELINQUENT PROCEDURE CHANGE APPROVALS.
EVENT DATE: 070384 REPORT DATE: 080384 NSSS: WE TYPE: PWR
OTHER UNITS INVOLVED: SAN ONOFRE 2 (PWR)
SAN ONOFRE 3 (PWR)

(NSIC 190641) ON 7/3/84, WITH UNITS 1, 2 AND 3 IN MODE 5, AN AUDIT DETERMINED A TEMPORARY CHANGE NOTICE (TCN) FOR PROCEDURE S02-3-3.31, "IN-SERVICE VALVE TESTING COLD SHUTDOWN - UNIT 2," WAS NOT APPROVED BY THE STATION MANAGER OR HIS DESIGNEE WITHIN 14 DAYS OF IMPLEMENTATION AS REQUIRED BY TECH SPEC 6.8.3.C. THE TCN, WHICH SHOULD HAVE BEEN APPROVED BY 12/5/83, WAS SUPERSEDED ON 6/22/84, HAVING NEVER RECEIVED THE 14 DAY APPROVAL. AN AUDIT OF CORPORATE DOCUMENTATION MANAGEMENT (CDM) FILES HAS IDENTIFIED OTHER DELINQUENT TCN APPROVALS. EACH FAILURE TO APPROVE TCNS WITHIN 14 DAYS WAS EVALUATED AND DETERMINED TO HAVE NO SAFETY SIGNIFICANCE. THE DELINQUENCY IN APPROVING THESE TCN'S WITHIN 14 DAYS WAS DUE TO ADMINISTRATIVE PROCESSING ERROR. CORRECTIVE ACTIONS INCLUDE: PERFORMING A 100% AUDIT OF CDM FILES TO IDENTIFY AND EXPEDITE APPROVAL OF OTHER DELINQUENT TCNS; CONTINUING THE RECENTLY ESTABLISHED INTERNAL CONTROL OF VERIFYING TRANSMITTAL OF THE ORIGINAL TCN TO ASSURE INITIATION OF THE FINAL REVIEW PROCESS; REVISING THE REVIEW ROUTING SEQUENCE TO OBTAIN APPROPRIATE MANAGEMENT APPROVAL BEFORE QUALITY ASSURANCE APPROVAL; AND INFORMING ALL APPLICABLE STATION MANAGERS OF THE IMPORTANCE OF TIMELY TCN REVIEWS. THESE CORRECTIVE ACTIONS WILL BE COMPLETED BY SEPTEMBER 15, 1984.

[190] SAN ONOFRE 2 DOCKET 50-361 LER 83-030 REV 1
UPDATE ON INVESTIGATION OF A GROUND ON FAN MOTOR.
EVENT DATE: 040683 REPORT DATE: 070684 NSSS: CE TYPE: PWR
OTHER UNITS INVOLVED: SAN ONOFRE 3 (PWR)

(NSIC 190675) ON 4/6/83 AT 2115, WITH UNITS 2 AND 3 IN MODES 4 AND 5, RESPECTIVELY, CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM (CREACUS) TRAIN 'B' WAS DECLARED INOPERABLE FOR AN INVESTIGATION OF A GROUND ON FAN MOTOR ME-419. THE ACTION STATEMENT OF LCO 3.7.5 FOR MODES 1 THROUGH 4 WAS INVOKED AND SATISFIED AT

1300 ON 4/7/83 WHEN UNIT 2 ENTERED MODE 5. AT THIS TIME LCO 3.7.5, ACTION STATEMENT 'A' WAS ENTERED. THE FAN MOTOR WAS RETURNED TO THE MANUFACTURER TO DETERMINE THE CAUSE OF THE GROUND FAULT. ANALYSIS HAS SHOWN THAT WIRE INSULATION WAS APPARENTLY DAMAGED WHEN THE MOTOR COIL WAS ORIGINALLY INSTALLED IN THE CORE, RESULTING IN A TURN TO TURN SHORT. THE MOTOR WAS REPLACED AND NO FURTHER ACTION IS PLANNED.

[191] SAN ONOFRE 2 DOCKET 50-361 LER 83-137 REV 1
 UPDATE ON CONTAINMENT EMERGENCY COOLING UNIT HAS LOW FLOW.
 EVENT DATE: 101983 REPORT DATE: 070684 NSSS: CE TYPE: PWR
 OTHER UNITS INVOLVED: SAN ONOFRE 3 (PWR)

(NSIC 190676) ON 10/19/83, AT 0815, WITH UNIT 3 IN MODE 1, UNIT 3 TRAIN A CONTAINMENT EMERGENCY COOLING UNIT 3E-399 FAILED TO MEET THE ACCEPTANCE CRITERIA OF TECH SPEC 4.6.2.3.A.2, AND WAS DECLARED INOPERABLE AND LCO 3.6.2.3, ACTION STATEMENT 'A' WAS ENTERED. ON 10/20/83, AT 1000, WITH UNIT 2 IN MODE 1, UNIT 2E-399 FAILED IN THE SAME MANNER, AND UNIT 2 ENTERED LCO 3.6.2.3, ACTION STATEMENT 'A.' THE EVENTS OCCURRED WHEN 3HV-6371 AND 2HV-6371, RESPECTIVELY, FAILED TO OPEN COMPLETELY TO ALLOW A FLOW RATE OF 2000 GPM. IN BOTH CASES, THE TORQUE SETTINGS ON THE VALVES WERE INCREASED, AND THE SYSTEMS WERE DECLARED OPERABLE PER S023-3-3.30 AT 0140 ON 10/21/83 AND AT 1645 ON 10/21/83, FOR UNITS 2 AND 3 RESPECTIVELY.

[192] SAN ONOFRE 2 DOCKET 50-361 LER 83-156
 FAILURE TO EVALUATE SNUBBER FAILURE
 EVENT DATE: 122283 REPORT DATE: 012484 NSSS: CE TYPE: PWR

(NSIC 190527) ON 12/22/83, AT 1055, WITH UNIT 2 IN MODE 1, AN INSPECTION OF SNUBBER S2-ST-017-H-009 LOCATED ON THE MAIN STEAM SUPPLY LINE TO THE AUXILIARY FEED PUMP TURBINE K007 DETERMINED IT TO BE BINDING IN THE COMPRESSION MODE. THE SNUBBER WAS REPLACED IN ACCORDANCE WITH LCO 3.7.6 ON 12/24/83. HOWEVER, THE REQUIRED ENGINEERING EVALUATION FOR THE STEAM SUPPLY LINE WAS NOT COMPLETED BY 1055 ON 12/25/83 AS REQUIRED BY LCO 3.7.6. FAILURE TO PERFORM THE REQUIRED ENGINEERING EVALUATION WAS DUE TO NOT HAVING ADEQUATE ADMINISTRATIVE CONTROLS TO DOCUMENT, TRACK, AND ASSIGN RESPONSIBILITY FOR ENGINEERING EVALUATIONS ON COMPONENTS ATTACHED TO INOPERABLE SNUBBERS. ENGINEERING PROCEDURE S0123-V-5.1 HAS BEEN APPROPRIATELY REVISED. SNUBBER FAILURE IS CURRENTLY UNDER EVALUATION.

[193] SAN ONOFRE 2 DOCKET 50-361 LER 84-015 REV 1
 UPDATE ON FIRE PROTECTION PROGRAM DISCREPANCIES.
 EVENT DATE: 030684 REPORT DATE: 060184 NSSS: CE TYPE: PWR
 OTHER UNITS INVOLVED: SAN ONOFRE 3 (PWR)

(NSIC 190559) AS REPORTED ON MAR 7, 1984, PURSUANT TO 10CFR50.72(B)(1)(II)(B) AND LICENSE CONDITION 2.G, THE PREPARATION OF THE UPDATED FIRE HAZARDS ANALYSIS (FHA) AND THE REVIEW OF IE INFORMATION NOTICE (IN) 84-09 HAVE RESULTED IN THE ISSUANCE OF NONCONFORMANCE REPORTS (NCR'S) IDENTIFYING APPARENT DISCREPANCIES BETWEEN THE SCE FIRE PROTECTION PROGRAM AND NRC REQUIREMENTS. THIS REPORT RESULTS FROM 49 NCR'S IDENTIFYING CONDITIONS WHICH HAVE BEEN DETERMINED TO BE IN NONCONFORMANCE WITH THE LICENSE, THE CURRENT FHA AND/OR THE TECH SPECS. THESE APPARENT DISCREPANCIES INVOLVE: I&C CABLE PROTECTION; ASSOCIATED CIRCUIT ANALYSIS; SEPARATION CRITERIA INSIDE CONTAINMENT; ALTERNATIVE SAFE SHUTDOWN ANALYSIS; ALTERNATIVE SAFE SHUTDOWN MONITORING; FIRE HOSE HOUSES; ELECTRICAL CABLE CONSTRUCTION AND TESTING; VENTILATION SYSTEMS; FIRE PROTECTION EQUIPMENT INSTALLATION; THE USE OF COMBUSTIBLE MATERIALS; CABLE SEPARATION AND FIRE BARRIERS; AND, SMOKE AND FIRE DETECTORS. APPROPRIATE COMPENSATORY MEASURES HAVE BEEN IMPLEMENTED. THIS REPORT IS ALSO SUBMITTED TO FULFILL THE REQUIREMENTS OF

LICENSE CONDITION 2.G RELATING TO LICENSE CONDITIONS 2.C(14)A AND 2.C(12)A OF OPERATING LICENSES NPF-10 AND NPF-15 FOR UNITS 2 AND 3, RESPECTIVELY.

[194] SAN ONOPRE 2 DOCKET 50-361 LER 84-024 REV 1
 UPDATE ON FIRE PROTECTION PROGRAM DISCREPANCIES.
 EVENT DATE: 042484 REPORT DATE: 050784 NSSS: CE TYPE: PWR
 OTHER UNITS INVOLVED: SAN ONOPRE 3 (PWR)

(NSIC 190625) AS REPORTED ON APR 24 AND MAY 4, 1984, PURSUANT TO 10 CFR 50.36 AND 50.72(B)(1)(II)(B) AND LICENSE CONDITION 2.G., THE PREPARATION OF THE UPDATED FIRE HAZARDS ANALYSIS (PHA) RESULTED IN THE ISSUANCE OF THREE NONCONFORMANCE REPORTS (NCR'S) IDENTIFYING DISCREPANCIES INVOLVING CABLE SEPARATION AND FIRE WRAPS. THE CONDITIONS IDENTIFIED IN THESE 3 NCR'S CONSTITUTE ADDITIONAL EXAMPLES OF DEFICIENCIES REPORTED PREVIOUSLY IN LER 84-015. CORRECTIVE ACTIONS, DESCRIBED IN LER 84-015, WILL BE TO WRAP OR SEPARATE APPROPRIATE CABLES OR CABLE TRAYS, OR TO REVISE THE PHA TO CLARIFY APPROPRIATE CABLE WRAPPING REQUIREMENTS. THIS REPORT IS ALSO SUBMITTED TO FULFILL THE REQUIREMENTS OF LICENSE CONDITION 2.G RELATING TO LICENSE CONDITIONS 2.C.(14)A AND 2.C.(12)A OF OPERATING LICENSES NPF-10 AND NPF-15 FOR UNITS 2 AND 3, RESPECTIVELY.

[195] SAN ONOPRE 2 DOCKET 50-361 LER 84-032
 SPURIOUS TOXIC GAS ISOLATION SYSTEM (TGIS) ACTUATIONS.
 EVENT DATE: 052884 REPORT DATE: 062784 NSSS: CE TYPE: PWR
 OTHER UNITS INVOLVED: SAN ONOPRE 3 (PWR)

(NSIC 190677) ON MAY 28, 1984, AT 0920, WITH BOTH UNITS IN MODE 1 AT 100% POWER, A SPURIOUS TOXIC GAS ISOLATION SYSTEM (TGIS) ACTUATION OCCURRED. SUBSEQUENT TO THIS DATE, ADDITIONAL SPURIOUS ACTUATIONS OCCURRED ON MAY 30, 31, JUN 3, 7, 14, 18, 19, AND 23. THE CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM (CREACUS) ACTUATED ON EACH TGIS. FOR EACH OCCURRENCE, THE ACTUATION WAS VERIFIED TO BE SPURIOUS AND TGIS WAS IMMEDIATELY RESET. SEE ALSO LERS 84-006, 012, 021, AND 026 (DOCKET NO. 50-361). THE SPURIOUS TGIS ACTUATIONS ARE THE RESULT OF OVERLY CONSERVATIVE ALARM SETPOINTS. IN ADDITION, ONE OR MORE OF THE FOLLOWING CONDITIONS ALSO CONTRIBUTE TO SPURIOUS TGIS ACTUATIONS: ELECTRICAL NOISE, RAPID TEMPERATURE AND PRESSURE CHANGES, RADIO TRANSMISSIONS, VIBRATION, AND DUST AND DIRT ACCUMULATION. CORRECTIVE ACTIONS HAVE BEEN IMPLEMENTED AND ARE CONTINUING IN ORDER TO ELIMINATE THESE CONDITIONS. A PROPOSED TECH SPEC AMENDMENT HAS BEEN SUBMITTED TO PERMIT MORE APPROPRIATE TGIS SETPOINTS. IN ADDITION, A REQUEST FOR EXEMPTION FROM REPORTING INVALID ACTUATIONS OF THE TGIS UNDER 10 CFR 50.72 AND 10 CFR 50.73 IS BEING PREPARED.

[196] SAN ONOPRE 2 DOCKET 50-361 LER 84-034
 FAILURE TO ESTABLISH FIRE WATCH.
 EVENT DATE: 061184 REPORT DATE: 071184 NSSS: CE TYPE: PWR

(NSIC 190678) ON 6/11/84, AT 1345, WITH UNIT 2 IN MODE 1 AT 100% POWER, A SECTION OF THE UNITS 2 AND 3 FIRE MAIN (EHS SYSTEM CODE KP) WAS ISOLATED TO PERFORM PIPING MODIFICATIONS, ISOLATING THE SPRAY/SPRINKLER SYSTEMS ASSOCIATED WITH THE UNIT 2 AUX. FEEDWATER PUMP ROOM, CABLE TUNNEL SECTIONS, AND THE 8' ELEV. OF THE SAFETY EQUIPMENT BLDG. ALL REQUIRED BACKUP FIRE SUPPRESSION EQUIPMENT WAS PROVIDED; HOWEVER, CONTINUOUS FIRE WATCHES WERE NOT ESTABLISHED WITHIN 1 HR PER LCO 3.7.8.2, ACTION STATEMENT 'A.' FIRE WATCHES WERE NOT ESTABLISHED UNTIL 1500 ON 6/16/84 WHEN THE EVENT WAS DISCOVERED WHILE EVALUATING THE IMPACT OF A FIRE MAIN RUPTURE. THERE WAS NO SIGNIFICANT DEGRADATION OF FIRE FIGHTING CAPABILITY SINCE FIRE DETECTION SYSTEMS REMAINED OPERABLE AND THE ONSITE FIRE BRIGADE WAS AVAILABLE TO RESPOND. THE CAUSE OF THIS EVENT WAS MISCOMMUNICATION WHICH RESULTED IN THE FIRE WATCHES NOT BEING PROPERLY ESTABLISHED. APPROPRIATE PERSONNEL HAVE REVIEWED THIS EVENT AND THE IMPORTANCE OF PREVENTING

MISCOMMUNICATION HAS BEEN STRESSED. THIS IS CONSIDERED TO BE AN ISOLATED EVENT AND NO FURTHER CORRECTIVE ACTION IS PLANNED. THERE ARE NO REASONABLE OR CREDIBLE CIRCUMSTANCES UNDER WHICH THIS EVENT WOULD HAVE BEEN MORE SEVERE.

[197] SAN ONOFRE 2 DOCKET 50-361 LER 84-029
 INADVERTENT DEENERGIZATION OF EMERGENCY CHILLER.
 EVENT DATE: 061484 REPORT DATE: 071284 NSSS: CE TYPE: PWR
 OTHER UNITS INVOLVED: SAN ONOFRE 3 (PWR)

(NSIC 190741) ON JUNE 14, 1984, AT 0344, WITH UNIT 2 IN MODE 1 AT 100% POWER AND UNIT 3 IN MODE 5, BREAKER 3B0417 (EIIIS COMPONENT IDENTIFIER BKR) WAS INADVERTENTLY TRIPPED DEENERGIZING LOAD CENTER BQ, INITIATING THE TOXIC GAS ISOLATION SYSTEM (EIIIS SYSTEM IDENTIFIER JE) AND RENDERING EMERGENCY CHILLER E-336 (EIIIS COMPONENT IDENTIFIER CHU) INOPERABLE. LOSS OF AN EMERGENCY CHILLER RENDERS EQUIPMENT INOPERABLE ON BOTH UNITS IN ROOMS WHERE CHILLED WATER IS PROVIDED TO COOL AMBIENT AIR. THUS, THE LOSS OF E-336 RENDERS TWO INVERTERS INOPERABLE IN EACH UNIT, AND SINCE THE ASSOCIATED ACTION STATEMENT OF LIMITING CONDITION FOR OPERATION (LCO) 3.8.3.1 FOR MODES 1 THROUGH 4 ADDRESSES ONLY THE LOSS OF ONE INVERTER, LCO 3.0.3 WAS INVOKED. LOAD CENTER BQ WAS IMMEDIATELY REENERGIZED FROM BREAKER 2B0417 RESTORING E-336 TO SERVICE AT 0348, AND LCO 3.03. WAS EXITED. THE CAUSE OF THIS INCIDENT WAS PERSONNEL ERROR IN TRIPPING THE WRONG BREAKER DURING TRANSFER OF CHARGING PUMP POWER SUPPLY FOR ENGINEERED SAFETY FEATURE ACTUATION SYSTEM SUBGROUP RELAY TESTING. THE OPERATOR WAS COUNSELED ON THE SIGNIFICANCE OF THE INCIDENT AND THE NECESSITY FOR FOLLOWING PROCEDURES. THIS INCIDENT IS AN ISOLATED OCCURRENCE AND NO FURTHER CORRECTIVE ACTION IS PLANNED. THERE ARE NO REASONABLE OR CREDIBLE CIRCUMSTANCES UNDER WHICH THIS EVENT WOULD HAVE BEEN MORE SEVERE.

[198] SAN ONOFRE 3 DOCKET 50-362 LER 83-007 REV 1
 UPDATE ON HPSI FLOW INDICATOR FAILURE.
 EVENT DATE: 011983 REPORT DATE: 061384 NSSS: CE TYPE: PWR

(NSIC 190528) ON 01/19/83 AT 1005 WHILE IN MODE 3, HIGH PRESSURE SAFETY INJECTION (HPSI) HOT LEG FLOW INDICATOR 3FI-0321-1 WAS DECLARED INOPERABLE DUE TO ERRONEOUS READING AND FAILED ITS TECH SPEC SURVEILLANCE PER SECTION 4.3.3.6. LCO 3.3.3.6 WAS INVOKED. THE ACTION STATEMENT ASSOCIATED WITH THIS LCO ALLOWS OPERATIONS TO CONTINUE FOR UP TO 7 DAYS BEFORE REQUIRING THE INDICATOR TO BE RETURNED TO SERVICE OR INITIATE COOLDOWN. THE CAUSE OF THE FLOW INDICATOR FAILURE HAS NOT BEEN DETERMINED. THE FAILURE OF THE INDICATOR IS BELIEVED TO BE SPURIOUS SINCE IT HAS NOT RECURRED SINCE THE 1/19/83 EVENT. 3FI-0321-1 WAS RETURNED TO SERVICE AT 0500 ON 1/22/83 AFTER PERFORMANCE OF SURVEILLANCE TESTING IN ACCORDANCE WITH PROCEDURE S023-3-3.35. NO FURTHER ACTIONS ARE PLANNED.

[199] SAN ONOFRE 3 DOCKET 50-362 LER 84-013 REV 1
 UPDATE ON DOSE EQUIVALENT IODINE LIMITS EXCEEDED.
 EVENT DATE: 033084 REPORT DATE: 060884 NSSS: CE TYPE: PWR

(NSIC 190626) PURSUANT TO LIMITING CONDITION FOR OPERATION (LCO) 3.4.7, ACTION STATEMENT 'D' OF APPENDIX A, TECH SPECS TO FACILITY OPERATING LICENSE NPF-15 FOR SAN ONOFRE UNIT 3, THIS SUBMITTAL PROVIDES THE REQUIRED 30-DAY WRITTEN LICENSEE EVENT REPORT (LER) FOR AN OCCURRENCE INVOLVING THE REACTOR COOLANT SYSTEM SPECIFIC ACTIVITY. ON 3/30/84, AT 0430, WITH UNIT 3 IN MODE 3 FOLLOWING A REACTOR SHUTDOWN FOR MAINTENANCE, A REACTOR COOLANT SYSTEM (RCS) SAMPLE ANALYSIS INDICATED THAT RCS SPECIFIC ACTIVITY EXCEEDED 1.0 MICROCURIE/GRAM DOSE EQUIVALENT (DE) I-131. PURIFICATION FLOW WAS INCREASED AND RCS ACTIVITY WAS REDUCED TO LESS THAN 1.0 MICROCURIE/GRAM DE I-131 AT 0020 ON 4/1/84. ON 4/1/84, AT 0905, WITH UNIT 3 IN MODE 2 AT 5% POWER, RCS SAMPLE ANALYSIS AGAIN INDICATED THAT RCS ACTIVITY EXCEEDED 1.0 MICROCURIE/GRAM DOSE EQUIVALENT (DE) I-131. PURIFICATION

FLOW WAS INCREASED AND RCS ACTIVITY WAS REDUCED TO LESS THAN 1.0 MICROCURIE/GRAM DE I-131 AT 1310 ON 4/1/84. NO FURTHER CORRECTIVE ACTION IS PLANNED.

[200] SAN ONOFRE 3 DOCKET 50-362 LER 84-022
 REACTOR TRIPS ON LOSS OF LOAD.
 EVENT DATE: 060184 REPORT DATE: 062984 NSSS: CE TYPE: PWR

(NSIC 190629) AT 0417 ON JUNE 1, 1984, DURING PERFORMANCE OF SURVEILLANCE PROCEDURE S023-3-3.34, "TURBINE OVERSPEED PROTECTION VALVE OPERABILITY TESTS," WITH UNIT 3 AT 92% POWER, A FAILURE IN THE TURBINE CONTROL SYSTEM (EII SYSTEM IDENTIFIER TT) CAUSED ALL HIGH PRESSURE TURBINE STOP VALVES (EII COMPONENT IDENTIFIER V) TO CLOSE AND A "LOSS OF LOAD" REACTOR TRIP. NO SYSTEMS OR COMPONENTS MALFUNCTIONED DURING THIS EVENT. THE TURBINE STOP AND GOVERNOR VALVES ARE CONTROLLED BY SIGNALS FROM THREE COMPUTING CHANNELS. IF ONE CHANNEL'S OUTPUT DEVIATES SIGNIFICANTLY FROM THE REMAINING TWO CHANNELS, THAT CHANNEL'S OUTPUT WILL NOT BE USED IN VALVE CONTROL. ALTHOUGH THE EXACT CAUSE OF THE TRIP COULD NOT BE DETERMINED, IT IS SUSPECTED THAT ONE OF THE COMPUTING CHANNELS FAILED AND THE ON LOAD TEST MODULE LOST POWER. THESE FAILURES RESULTED IN TWO OF THE THREE COMPUTING CHANNELS PRODUCING A "VALVE CLOSE" SIGNAL. ALL TURBINE STOP AND GOVERNOR VALVES CLOSED CAUSING A "LOSS OF LOAD" REACTOR TRIP. THE ON LOAD TEST MODULE POWER SUPPLY WAS REPLACED, AND SEVERAL LOOSE CIRCUIT CARDS WERE RESEATED. IN ADDITION, S023-3-3.34 WAS REVISED TO REQUIRE AN OPERATOR AT THE TURBINE GOVERNOR CONTROL PANEL DURING VALVE TESTING TO INFORM THE CONTROL ROOM IF ANY OFF NORMAL CONDITIONS ARE DETECTED. THERE ARE NO REASONABLE OR CREDIBLE ALTERNATIVES UNDER WHICH THIS EVENT WOULD HAVE BEEN MORE SEVERE.

[201] SAN ONOFRE 3 DOCKET 50-362 LER 84-021
 NUCLEAR SAMPLE SYSTEM SAFETY RELIEF VALVE LIPT RESULTS IN RADIOACTIVE RELEASE.
 EVENT DATE: 060284 REPORT DATE: 062984 NSSS: CE TYPE: PWR

(NSIC 190628) ON JUN 2, 1984, AT APPROX 1600 WITH UNITS 2 AND 3 IN MODE 1 AT 100% AND 75% POWER, RESPECTIVELY, THE SAFETY RELIEF VALVE 3PSV-0245 (EII COMPONENT CODE RV) ON THE NUCLEAR SAMPLE SYSTEM (NSS) (EII SYSTEM CODE CB) ACTUATED. THE RESULTANT ACTIVITY RELEASED WAS ROUTED TO THE PLANT VENT STACK, ALARMING RADIATION MONITORS 2RE-7865 AND 3RE-7865 (EII SYSTEM CODE IL). IN ACCORDANCE WITH THE ACTION STATEMENT OF LCO 3.11.2.1, ACTIONS WERE IMMEDIATELY INITIATED TO TERMINATE THE RELEASE BY ISOLATING A PORTION OF THE NSS. APPROX 427 CURIES OF NOBLE GAS WERE RELEASED OVER A PERIOD OF 2 HRS AND 10 MINS. THE MAXIMUM CONCENTRATION OCCURRED DURING THE FIRST HR OF THE EVENT AND AVERAGED 2.1E-6 MICROCURIES PER CUBIC CENTIMETER DURING THAT HOUR (7.1 TIMES THE APPLICABLE CONCENTRATION IN APPENDIX B, TABLE II OF 10 CFR 20 IN UNRESTRICTED AREAS). THE RELEASE WAS BELOW THE MINIMUM ACTION LEVEL NECESSARY TO ACTIVATE THE EMERGENCY PLAN. PRIOR TO THE RELEASE, AN ENGINEERING EVALUATION OF THE NSS HAD DETERMINED THAT THE SETPOINT OF 3PSV-0245 WAS SET UNNECESSARILY LOW AND WORK WAS SCHEDULED TO RAISE THE SETPOINT TO A MORE APPROPRIATE VALUE. ON JUNE 6, 1984, AT 2242, THE SETPOINT WAS RAISED, AND 3PSV-0245 WAS RETURNED TO SERVICE. THERE ARE NO REASONABLE OR CREDIBLE CIRCUMSTANCES WHICH COULD HAVE INCREASED THE SEVERITY OF THE INCIDENT.

[202] SAN ONOFRE 3 DOCKET 50-362 LER 84-024
 DNBR REACTOR TRIP.
 EVENT DATE: 061184 REPORT DATE: 070984 NSSS: CE TYPE: PWR

(NSIC 190679) ON JUN 11, 1984, AT 1817, WITH UNIT 3 IN MODE 1 AT 100% POWER, A SPURIOUS PENALTY FACTOR FROM CONTROL ELEMENT ASSEMBLY CALCULATOR (CEAC) 1 CAUSED ALL FOUR CORE PROTECTION CALCULATORS (CPC'S) TO GENERATE LOW DEPARTURE FROM NUCLEATE BOILING RATIO (DNBR) TRIP SIGNALS TO THE FOUR REACTOR PROTECTION SYSTEM CHANNELS. THE REACTOR TRIPPED, AND THE EMERGENCY FEEDWATER SYSTEM ACTUATED ON

LOW STEAM GENERATOR LEVEL DUE TO SHRINK. NO SYSTEMS OR COMPONENTS MALFUNCTIONED DURING THIS EVENT. THE CAUSE OF THE TRIP WAS AN INTERMITTENT HARDWARE FAILURE ON ONE OF FIVE COMPUTER BOARDS. ALL FIVE BOARDS HAVE BEEN REPLACED, AND NO FURTHER FAILURES HAVE BEEN OBSERVED. NO OTHER CORRECTIVE ACTION IS PLANNED.

[203] SAN ONOFRE 3 DOCKET 50-362 LER 84-026
 CPIS ACTUATION DUE TO EQUIPMENT FAILURE ON JUN 12, 1984.
 EVENT DATE: 061284 REPORT DATE: 071284 NSSS: CE TYPE: PWR
 VENDOR: NUCLEAR MEASUREMENTS CORP.

(NSIC 190680) ON JUN 12, 1984, AT 0836, WITH UNIT 3 IN MODE 3, CORRECTIVE MAINTENANCE ACTIVITIES WERE BEING PERFORMED ON CONTAINMENT AIRBORNE RADIATION MONITOR (EIIIS COMPONENT CODE RIT) 3RE-7807 IODINE CHANNEL 'A.' THE CONTAINMENT PURGE ISOLATION SYSTEM (CPIS) (EIIIS SYSTEM CODE VA) ACTUATION LOGIC WAS PLACED IN THE BYPASS MODE AND 3RE-7807-A2 IODINE CHANNEL MODULE WAS REMOVED FOR REPAIRS. A SPARE MODULE WAS INSTALLED AND, AFTER VERIFICATION THAT THE ALARM DEFEAT BUTTON ON THE SPARE MODULE WAS ENGAGED, THE CPIS ACTUATION LOGIC BYPASS WAS RESTORED TO NORMAL. THE ALARM DEFEAT BUTTON ON THE SPARE MODULE WAS DEFECTIVE AND ALLOWED A SPURIOUS ALARM SIGNAL TO GO THROUGH AND COMPLETE THE CPIS ACTUATION LOGIC. THE ALARM SIGNAL WAS CAUSED BY AN ELECTRICAL SPIKE GENERATED WHEN THE SPARE MODULE WAS INSTALLED. SINCE NO PURGE WAS IN PROGRESS AND THE DAMPERS WERE CLOSED, THERE WAS NO ACTUATION OF CPIS COMPONENTS. REDUNDANT CPIS TRAIN 'A' REMAINED OPERABLE TO PERFORM THE REQUIRED SAFETY FUNCTIONS. THE ORIGINAL MODULE WAS REINSTALLED AND CPIS WAS RESET. A FULL ACTUATION OF THE CPIS TRAIN 'B' WAS CONDUCTED TO VERIFY PROPER OPERATION. TO PREVENT RECURRENCE, OPERABILITY OF THE ALARM DEFEAT FUNCTION OF SPARE MODULES USED DURING REPAIRS AND/OR MAINTENANCE ACTIVITIES IS NOW VERIFIED PRIOR TO USE. THERE ARE NO REASONABLE OR CREDIBLE CIRCUMSTANCES WHICH WOULD HAVE INCREASED THE SEVERITY OF THIS INCIDENT.

[204] SAN ONOFRE 3 DOCKET 50-362 LER 84-027
 MISSED IODINE AND PARTICULATE SAMPLE.
 EVENT DATE: 061284 REPORT DATE: 071284 NSSS: CE TYPE: PWR

(NSIC 190681) ON 6/12/84, WITH UNIT 3 IN MODE 4, DAILY CONTAINMENT AIRBORNE PARTICULATE AND IODINE SAMPLES WERE REQUIRED TO BE TAKEN FROM RADIATION MONITOR 3RT-7804 (EIIIS COMPONENT CODE RIT) IN ACCORDANCE WITH SURVEILLANCE REQUIREMENT 4.11.2.1.2 FOLLOWING THE REACTOR TRIP THAT OCCURRED AT 1818 ON 6/11/84. A SAMPLE WAS TAKEN AT 2200 ON 6/11/84 AND 1900 ON 6/13/84. THE DAILY SAMPLE REQUIRED ON 6/12/84 WAS NOT TAKEN. THE MISSED SAMPLE WAS DUE TO AN OVERSIGHT BY THE RESPONSIBLE CHEMISTRY TECHNICIAN. THE CHEMISTRY TECHNICIAN HAS BEEN COUNSELED ON THE IMPORTANCE OF TECH SPEC SAMPLING REQUIREMENTS AND APPROPRIATE DISCIPLINARY ACTION HAS BEEN TAKEN. A MEMORANDUM WAS ISSUED TO ALL UNIT 2/3 CHEMISTRY TECHNICIANS REQUIRING A REVIEW OF SPECIFIED PROCEDURES RELATED TO THIS OCCURRENCE. COMPLETION OF THIS REVIEW WAS VERIFIED BY THE CHEMISTRY TECHNICIANS' INITIALS. THIS IS CONSIDERED AN ISOLATED OCCURRENCE AND NO FURTHER CORRECTIVE ACTION IS PLANNED. THERE ARE NO CREDIBLE CIRCUMSTANCES THAT WOULD HAVE INCREASED THE SEVERITY OF THIS EVENT.

[205] SAN ONOFRE 3 DOCKET 50-362 LER 84-028
 DELINQUENT PROCESSING OF OVERTIME REQUEST FORMS.
 EVENT DATE: 061484 REPORT DATE: 071684 NSSS: CE TYPE: PWR
 OTHER UNITS INVOLVED: SAN ONOFRE 2 (PWR)

(NSIC 190742) ON JUNE 14, 1984, WITH UNIT 3 IN MODE 5, IT WAS DETERMINED THAT THERE HAVE BEEN INSTANCES WHERE OVERTIME REQUEST FORMS WERE NOT APPROVED AS REQUIRED BY TECH SPEC 6.2.2.F. ALTHOUGH THE IDENTIFIED DEFICIENCIES REPRESENT ONLY A SMALL FRACTION OF THE TOTAL NUMBER OF OVERTIME REQUEST FORMS PROCESSED AND WE HAVE CONCLUDED NO PROGRAMMATIC FAILURE OCCURRED, THESE DEFICIENCIES ARE

CONSIDERED TO BE A CONDITION NOT IN FULL CONFORMANCE WITH THE INTENT OF TECH SPEC 6.2.2.F. WE HAVE REVIEWED THESE INSTANCES AND HAVE CONCLUDED THAT THERE WAS NO SAFETY SIGNIFICANCE TO THE FAILURE TO PROPERLY APPROVE THE OVERTIME REQUEST FORMS. THERE WERE NO IDENTIFIED INSTANCES WHERE AUTHORIZATION WOULD HAVE BEEN DENIED. STATION PROCEDURE SO123-VI-19.0 AND STATION ORDER SO123-A-139 WERE REVISED TO CLARIFY PROCESSING REQUIREMENTS AND APPROPRIATE TRAINING OF INDIVIDUALS HAS BEEN PERFORMED. TO IMPROVE EFFICIENCY AND ACCURACY IN PROCESSING, A COMPUTER TRACKING SYSTEM IS UNDER DEVELOPMENT. THERE ARE NO REASONABLE OR CREDIBLE CIRCUMSTANCES UNDER WHICH THIS CONDITION WOULD HAVE BEEN MORE SEVERE.

[206] SEQUOYAH 1 DOCKET 50-327 LER 84-012
CONTAINMENT BUILDING VENTILATION ISOLATION.
EVENT DATE: 020184 REPORT DATE: 030184 NSSS: WE TYPE: PWR
VENDOR: GAST MANUFACTURING CORP.

(NSIC 189288) A HIGH RADIATION ALARM WAS ACTUATED WHICH CAUSED A CONTAINMENT VENTILATION ISOLATION (CVI) TO OCCUR. INVESTIGATION REVEALED THAT A VOLTAGE SPIKE OCCURRED AS A RESULT OF ELECTROMAGNETIC INTERFERENCE (EMI) WHICH WAS GENERATED BY A SWITCH ACTUATION ON THE LOW FLOW ALARM AND A PUMP TRIP. RADIATION LEVELS WERE NOT ABOVE NORMAL DURING THIS TIME. THE INADVERTENT HIGH RADIATION ALARM WAS RESET AND THE MONITOR WAS RETURNED TO SERVICE AFTER THE SAMPLE PUMP WAS REPAIRED. EMI PROTECTION IS BEING INSTALLED TO HELP PREVENT MORE INADVERTENT SPIKES. THE CVI ACTUATION SIGNAL IS BEING BLOCKED DURING MAINTENANCE, PER REVISED PROCEDURES, TO PREVENT INADVERTENT SPIKES FROM BEING GENERATED.

[207] SEQUOYAH 1 DOCKET 50-327 LER 84-015
AUXILIARY BUILDING VENTILATION ISOLATION.
EVENT DATE: 022084 REPORT DATE: 031684 NSSS: WE TYPE: PWR
VENDOR: GENERAL ATOMIC CO.

(NSIC 189287) A HIGH RADIATION ALARM WAS ACTUATED WHICH CAUSED AN AUXILIARY BUILDING ISOLATION (ABI) TO OCCUR. INVESTIGATION REVEALED THAT A VOLTAGE SPIKE OCCURRED AS A RESULT OF ELECTROMAGNETIC INTERFERENCE (EMI) GENERATED BY BREAKER ACTUATION IN THE PLANT. RADIATION LEVELS WERE NOT ABOVE SETPOINT DURING THIS TIME. THE INDEPENDENT HIGH RADIATION ALARM WAS RESET AND THE MONITOR WAS RETURNED TO SERVICE. EMI PROTECTION HAS BEEN INSTALLED TO HELP PREVENT MORE SPURIOUS SPIKES ON THE RADIATION MONITOR. SEVERAL LONG-TERM CORRECTIVE ACTIONS ARE STILL BEING INVESTIGATED.

[208] SEQUOYAH 1 DOCKET 50-327 LER 84-035
GENERATOR AND REACTOR TRIPS TWICE DUE TO TURBINE BEARING FAILURES.
EVENT DATE: 052184 REPORT DATE: 061984 NSSS: WE TYPE: PWR
VENDOR: PYCO
SOLID STATE CONTROLS, INC.

(NSIC 190556) AT 2234C ON 5/21/84, UNIT 1 EXPERIENCED A REACTOR TRIP. UNIT 1 WAS IN MODE 1 (2235 PSIG, 578 DEGREES F) AT 100% REACTOR POWER JUST PRIOR TO THE EVENT. A TURBINE TRIP OCCURRED DUE TO THE FAILURE OF THE NUMBER ELEVEN BEARING WHICH CAUSED THE PERMANENT MAGNET GENERATOR TO FAIL. THE ELECTRICAL TROUBLE ALARM CAUSED THE TURBINE TO TRIP AND THE P-9 INTERLOCK CAUSED THE REACTOR TO TRIP. AT 2050C ON 06/02/84, UNIT 1 HAD ANOTHER REACTOR TRIP DUE TO THE NUMBER ELEVEN BEARING. UNIT 1 WAS IN MODE 1 (2235 PSIG, 568 DEGREES F) AT 75% REACTOR POWER JUST PRIOR TO THE EVENT. THE TURBINE AND REACTOR WERE MANUALLY TRIPPED WHEN SPARKS WERE SEEN COMING FROM THE BEARING AND EXCESSIVE BEARING VIBRATION WAS INDICATED IN THE CONTROL ROOM. UNIT 1 STABILIZED AT 547 DEGREES F FOLLOWING THE REACTOR TRIPS.

[209] SEQUOYAH 1 DOCKET 50-327 LER 84-038
 NUMBER OF REACTOR COOLANT PUMPS REQUIRED IN MODE 3 CHANGED.
 EVENT DATE: 053184 REPORT DATE: 062684 NSSS: WE TYPE: PWR

(NSIC 190730) SEQUOYAH TECH SPECS REQUIRE TWO REACTOR COOLANT PUMPS OPERABLE WITH ONE PUMP IN OPERATION FOR MODE 3 OPERATION. A WESTINGHOUSE REVIEW HAS DETERMINED THAT WITH ONLY ONE REACTOR COOLANT PUMP OPERATING, THE DNB DESIGN BASIS MAY NOT BE MET DURING A BANK WITHDRAWAL FROM SUBCRITICAL ACCIDENT.

[210] SEQUOYAH 1 DOCKET 50-327 LER 84-041
 PRESSURIZER PRESSURE INDICATOR INOPERABLE.
 EVENT DATE: 061084 REPORT DATE: 070984 NSSS: WE TYPE: PWR

(NSIC 190620) THE PRESSURIZER PRESSURE INDICATOR IN THE AUXILIARY CONTROL ROOM (ACR) WAS DISCOVERED INOPERABLE BY THE PERFORMANCE OF A MONTHLY SURVEILLANCE INSTRUCTION (SI). UPON INVESTIGATION, IT WAS DISCOVERED THAT A WIRE HAD BEEN RETERMINATED INCORRECTLY THE LAST TIME THIS INDICATOR WAS CALIBRATED. THE WIRE WAS LIFTED, RETERMINATED IN THE CORRECT POSITION, AND THE LOOP WAS RETURNED TO SERVICE. SINCE THE ACR WAS NOT REQUIRED TO BE IN USE DURING THIS TIME, THE INDICATOR WAS NOT RELIED UPON BY PERSONNEL FOR THE OPERATION OF THE PLANT.

[211] SEQUOYAH 1 DOCKET 50-327 LER 84-036
 REACTOR TRIP DUE TO BUS SHORTING TO GROUND.
 EVENT DATE: 061884 REPORT DATE: 071684 NSSS: WE TYPE: PWR

(NSIC 190619) AT 2115C ON 06/18/84, UNIT 1 EXPERIENCED A REACTOR TRIP. UNIT 1 WAS IN MODE 1 (2235 PSIG, 578 DEGREES F) AT 100% REACTOR POWER JUST PRIOR TO THE EVENT. A TURBINE TRIP OCCURRED DUE TO A GASKET SLIPPING AND SHORTING THE GENERATOR BUS TO GROUND. THE ELECTRICAL TRIPBLE ALARM CAUSED THE TURBINE TO TRIP AND THE P-9 INTERLOCK CAUSED THE REACTOR TO TRIP. UNIT 1 STABILIZED AT 547 DEGREES F FOLLOWING THE REACTOR TRIP.

[212] SEQUOYAH 1 DOCKET 50-327 LER 84-042
 LIQUID RADWASTE RELEASES WITHOUT AUTOMATIC ISOLATION CAPABILITY.
 EVENT DATE: 062784 REPORT DATE: 072684 NSSS: WE TYPE: PWR
 OTHER UNITS INVOLVED: SEQUOYAH 2 (PWR)

(NSIC 190800) DUE TO AN INCOMPLETE MODIFICATION, RADIATION MONITOR O-RE-9-225 WOULD NOT PROVIDE AUTOMATIC ISOLATION OF DIRECT RELEASES FROM THE NEUTRALIZATION TANK. TWO BATCH RELEASES WERE MADE FROM THE TANK WITHOUT COMPLIANCE WITH ACTION STATEMENT 30 OF LCO 3.3.3.9.

[213] SEQUOYAH 1 DOCKET 50-327 LER 84-043
 FIRE DETECTOR INOPERABILITY.
 EVENT DATE: 062784 REPORT DATE: 071984 NSSS: WE TYPE: PWR

(NSIC 190731) A THERMAL FIRE DETECTOR WAS DISCOVERED INOPERABLE DURING THE PERFORMANCE OF A SURVEILLANCE INSTRUCTION. A 1 HR FIRE WATCH SHOULD HAVE BEEN ESTABLISHED, BUT IT WAS NOT. OPERATIONS PERSONNEL WERE NOTIFIED, BUT THE SHIFT ENGINEER (SE) WAS NOT NOTIFIED. THE FIRE DETECTOR WAS REPLACED AND RETURNED TO SERVICE BEFORE THE ERROR WAS DISCOVERED.

[214] SEQUOYAH 2 DOCKET 50-328 LER 84-010
 CONTAINMENT PURGE ISOLATION VALVES TESTED LATE.
 EVENT DATE: 062084 REPORT DATE: 071984 NSSS: WE TYPE: PWR

(NSIC 190621) THIS EVENT OCCURRED WHILE UNIT 2 WAS IN MODE 1 (100% REACTOR POWER, 2235 PSIG, 578 DEGREES F). TECH SPEC 4.6.3.4 REQUIRES EACH CONTAINMENT PURGE ISOLATION VALVE TO BE DEMONSTRATED OPERABLE WITHIN 24 HOURS AFTER EACH CLOSING OF THE VALVE. VALVES 2-FCV-30-9, -10, -52, AND -53 WERE CLOSED AT 2020 CDT ON 06/18/84 AFTER AN UPPER CONTAINMENT PURGE AND WERE NOT TESTED UNTIL 1005 CDT ON 06/20/84. THE FAILURE TO TEST THESE VALVES WAS DUE TO OPERATIONS FAILING TO NOTIFY THE ENGINEERING TEST SECTION THAT AN UPPER CONTAINMENT PURGE HAD BEEN COMPLETED. UPON DISCOVERY OF THIS CONDITION, THE ENGINEERING TEST SECTION WAS IMMEDIATELY NOTIFIED, AND THE VALVES WERE TESTED PER APPLICABLE PROCEDURES.

[215] SEQUOYAH 2 DOCKET 50-328 LER 84-009
 ESF AND TURBINE-DRIVEN AUXILIARY FEEDWATER PUMP (TDAFP) INOPERABILITY.
 EVENT DATE: 063084 REPORT DATE: 072384 NSSS: WE TYPE: PWR
 VENDOR: LIMITORQUE CORP.

(NSIC 190801) ON 6/30/84, MAINTENANCE WAS BEING PERFORMED ON MAIN FEEDWATER PUMP (MFP) 'B.' MFP 'A' WAS IN THE RESET CONDITION. THE TWO MOTOR-DRIVEN AUXILIARY FEEDWATER PUMPS (MDAFP) WERE RUNNING. MFP 'A' WAS ACCIDENTALLY TRIPPED AND GENERATED AN AUTO START SIGNAL (ESF ACTUATION) FOR THE AUXILIARY FEEDWATER (AFW). THE TURBINE-DRIVEN AUXILIARY FEEDWATER PUMP (TDAFP) DID NOT START DUE TO FLOW CONTROL VALVE (FCV) 1-15, MAIN STEAM SUPPLY, FAILING TO CLOSE. FCV-1-15 WAS REPAIRED AND RETURNED TO SERVICE.

[216] ST. LUCIE 1 DOCKET 50-335 LER 84-004
 SHIELD BUILDING EXHAUST FAN DAMPERS OUT OF POSITION.
 EVENT DATE: 061384 REPORT DATE: 071384 NSSS: CE TYPE: PWR

(NSIC 190623) ON JUNE 13, 1984, A SURVEILLANCE WAS PERFORMED IN ACCORDANCE WITH TECH SPEC 4.6.6.1 ON BOTH HVE6A&6B (SHIELD BUILDING EXHAUST FAN DAMPERS). AT THAT TIME FLOW WAS FOUND TO BE LESS THAN THE REQUIRED 6000 CFM ON EACH TRAIN. THE DAMPERS WERE INSPECTED FOR PROPER OPERATION. THIS INSPECTION SHOWED THAT WHILE THE DAMPERS WERE WORKING PROPERLY THEY WERE SLIGHTLY OUT OF ADJUSTMENT. THEY WERE BOTH READJUSTED WITHIN ONE HOUR. THE FLOWS AFTER ADJUSTMENT WERE 6543 CFM AND 6522 CFM FOR HVE6A&6B, RESPECTIVELY.

[217] SUMMER 1 DOCKET 50-395 LER 83-136 REV 1
 UPDATE ON RHR SUCTION VALVE CLOSES.
 EVENT DATE: 111283 REPORT DATE: 062984 NSSS: WE TYPE: PWR

(NSIC 190586) DURING A PLANNED SHUTDOWN, ENGINEERED SAFETY FEATURES (ESF) 120V AC VITAL INSTRUMENTATION PANEL APN-5901 WAS TRANSFERRED TO ALTERNATE POWER TO ACCOMMODATE MODIFICATIONS TO ITS NORMAL POWER SOURCE. WITH TRAIN 'A' RESIDUAL HEAT REMOVAL SYSTEM IN SERVICE, ITS SUCTION VALVE, XVG-8701A, CLOSED. THE VALVE WAS REOPENED WITHIN APPROX. 5 MINS. NO ADVERSE CONSEQUENCES RESULTED DUE TO PLANT CONDITIONS AND THE SHORT DURATION OF THE EVENT. THE PLANT REMAINED IN COMPLIANCE WITH TECH SPECS DURING THE EVENT. A DEAD BUS TRANSFER FROM NORMAL TO ALTERNATE POWER SOURCE CREATED A POWER TRANSIENT IN THE ASSOCIATED ESF INSTRUMENTATION BUS. ERRONEOUS SIGNALS WERE GENERATED AS A RESULT OF THE TRANSIENT. CONDITIONS WERE RETURNED TO NORMAL AFTER THE TRANSFER WAS COMPLETED. A POWER DISTRIBUTION LIST IS TO BE GENERATED TO INFORM OPERATORS OF PLANT INSTRUMENTATION POWER SOURCES.

[218] SUMMER 1 DOCKET 50-395 LER 84-024 REV 1
 UPDATE ON MAIN TURBINE TRIP - REACTOR TRIP.
 EVENT DATE: 042284 REPORT DATE: 070284 NSSS: WE TYPE: PWR
 VENDOR: ANCHOR/DARLING VALVE CO.

(NSIC 190693) ON APR 22, 1984, WITH REACTOR POWER AT 12%, AND ON APR 29, 1984, WITH REACTOR POWER AT 11%, THE REACTOR TRIPPED DUE TO A MAIN TURBINE TRIP. BOTH MAIN TURBINE TRIPS OCCURRED AS A RESULT OF MAIN TURBINE SHAFT OIL PUMP LOW DISCHARGE PRESSURE WHILE ROLLING THE MAIN TURBINE UP TO 1800 RPM. THE REACTOR PROTECTION SYSTEM FUNCTIONED PROPERLY ON BOTH EVENTS, AND ENGINEERING SAFETY FEATURE ACTUATED AS DESIGNED (I.E., EMERGENCY FEEDWATER PUMP START ON LOW-LOW STEAM GENERATOR LEVEL). THE CAUSES OF THESE EVENTS WERE ATTRIBUTED TO CONSERVATIVE SWITCH SETTINGS AND LOSS OF SUCTION ON THE MOTOR SUCTION PUMP. INSPECTION OF THE MOTOR SUCTION PUMP AND CHECK VALVE WILL BE PERFORMED DURING THE FIRST REFUELING OUTAGE. THE PROCEDURE HAS BEEN CHANGED TO DELETE THE HEAD CORRECTION ON THE PRESSURE SWITCH, AND THE PRESSURE SWITCH SETPOINT WILL BE CHANGED DURING THE FIRST REFUELING OUTAGE.

[219] SUMMER 1 DOCKET 50-395 LER 84-025 REV 1
UPDATE ON REACTOR TRIP FOLLOWING TURBINE THRUST BEARING WEAR DETECTOR
MODIFICATION.
EVENT DATE: 042584 REPORT DATE: 070284 NSSS: WE TYPE: PWR

(NSIC 190694) AT APPROX. 0247 HRS, APR 25, 1984, THE REACTOR TRIPPED FROM 100% INDICATED POWER AS A RESULT OF A MAIN TURBINE TRIP. THE TRIP OCCURRED AS THE MAIN TURBINE THRUST BEARING WEAR DETECTOR WAS BEING RETURNED TO SERVICE FOLLOWING A MODIFICATION. FOLLOWING THE SCRAM, FEEDWATER REGULATING VALVES A AND B DID NOT AUTOMATICALLY CLOSE UPON THE REACTOR TRIP COINCIDENT WITH LOW TAVG. FEEDWATER ISOLATION WAS ESTABLISHED BY THE AUTOMATIC CLOSURE OF THE MAIN FEEDWATER ISOLATION VALVES. THE CAUSE OF THIS EVENT WAS DUE TO PERSONNEL ERROR. THE TECHNICIAN DID NOT ADEQUATELY REVIEW THE SYSTEM STATUS PRIOR TO PERFORMING THE WORK. THIS EVENT WAS DISCUSSED WITH THE INDIVIDUAL INVOLVED, AND THE IMPORTANCE OF FULLY UNDERSTANDING A JOB, NO MATTER HOW SIMPLE, WAS EMPHASIZED.

[220] SURRY 1 DOCKET 50-280 LER 83-014 REV 1
UPDATE ON FUEL CLADDING DEGRADATION.
EVENT DATE: 030983 REPORT DATE: 071784 NSSS: WE TYPE: PWR

(NSIC 190658) DURING UNIT 1 REFUELING OPERATIONS, ABNORMAL DEGRADATION OF 7 FUEL RODS WAS OBSERVED. ONE FUEL ROD HAD ONE SMALL AND ONE LARGE (1/4 IN.) HOLE. 6 FUEL ASSEMBLIES WERE OBSERVED TO HAVE A MISSING TOP END PLUG IN 1 FUEL ROD OF EACH ASSEMBLY. THIS EVENT IS REPORTABLE PER TECH SPEC 6.6.2.A.(3). IN ADDITION, A SMALL HOLE WAS CONFIRMED IN 1 ROD OF 10 OTHER FUEL ASSEMBLIES. RCS ACTIVITY REMAINED WITHIN TECH SPEC LIMITS. A DETAILED EVALUATION INDICATES THAT SEVERAL MECHANISMS CONTRIBUTED TO THE ABNORMAL DEGRADATION. THEY WERE PRIMARY HYDRIDING, WE'D DEFECTS, STRESS RELATED DEFECTS AND DEBRIS INDUCED FRETTING. A REVIEW OF THE ROD DESIGN SPECS. AND MANUFACTURING PROCESSES IS BEING CONDUCTED BY WESTINGHOUSE. PORTIONS OF THE RCS WILL BE INSPECTED AND CLEANED AS NECESSARY.

[221] SURRY 1 DOCKET 50-280 LER 83-032
CHECK VALVE LEAK CAUSES LOW SERVICE WATER PRESSURE.
EVENT DATE: 071883 REPORT DATE: 081593 NSSS: WE TYPE: PWR
VENDOR: POWELL, WILLIAM COMPANY, THE

(NSIC 190699) WITH THE UNIT AT FULL POWER, SERVICE WATER PUMP 1-SW-P-10B WOULD NOT DEVELOP SUFFICIENT DISCHARGE PRESSURE. IT WAS DETERMINED THAT THE 1-SW-P-10A CHECK VALVE WAS NOT PROPERLY SEATED. THIS EVENT IS CONTRARY TO TECH SPEC 3.3.A.8.B AND IS REPORTABLE PER TECH SPEC 6.6.2.B.(2). THE REDUNDANT SERVICE WATER PUMP REMAINED OPERABLE DURING THIS EVENT. IT IS SUSPECTED THAT MATERIAL IN THE SERVICE WATER PREVENTED THE 10A PUMP CHECK VALVE DISC TO PROPERLY SEAT. THE UNSEATED CONDITION ALLOWED BACKFLOW THROUGH THE VALVE FROM THE 10B PUMP REDUCING ITS DISCHARGE PRESSURE. THE CHECK VALVE WAS FLUSHED OUT AFTER WHICH THE CHECK VALVE PROPERLY SEATED.

[222] SURRY 1 DOCKET 50-280 LER 84-013
 OVERPRESSURE MITIGATING SYSTEM CHALLENGED.
 EVENT DATE: 060184 REPORT DATE: 062984 NSSS: WE TYPE: PWR

(NSIC 190508) ON JUNE 1, 1984, AT 2343, THE UNIT 1 REACTOR COOLANT SYSTEM WAS SOLID AND AT 145 F AND 325 PSIG. AT THIS TIME, POWER OPERATED RELIEF VALVE (PORV) PCV-1455C CYCLED IN RESPONSE TO AN OVERPRESSURE CONDITION. THIS EVENT OCCURRED WHILE PLACING THE CHARGING SYSTEM IN SERVICE PRIOR TO UNIT STARTUP, SPECIFICALLY, WHILE OPENING MOV-1286B AND C AND MOV-1287A AND B (CHARGING PUMP DISCHARGE VALVES). THE MOV'S WERE IMMEDIATELY CLOSED AND THE PRESSURE TRANSIENT WAS TERMINATED. THE CAUSE OF THIS EVENT WAS PERSONNEL ERROR DUE TO IMPROPER PREPARATION AND VERIFICATION OF A TAGGING REPORT THAT WAS PREPARED FOR FLOW ELEMENT 1-SI-1940. VALVE 1-SI-174 WAS RETURNED TO THE OPEN POSITION IN ERROR PROVIDING A FLOW PATH FROM THE CHARGING PUMPS TO THE PRIMARY. THE VALVE WAS CLOSED AND ADDED TO THE PREPARATION FOR SOLID PLANT OPERATION PROCEDURE TO VERIFY IT CLOSED.

[223] SURRY 1 DOCKET 50-280 LER 84-016
 REACTOR TRIPS DURING AUXILIARY FEED PUMP TESTING.
 EVENT DATE: 061984 REPORT DATE: 071784 NSSS: WE TYPE: PWR
 VENDOR: LIMITORQUE CORP.

(NSIC 190793) ON JUN 19, 1984, WITH THE UNIT JUST LESS THAN 10% POWER, A REACTOR TRIP RESULTED WHEN 2 OF 4 NUCLEAR POWER CHANNELS, NI 44 AND NI 41 EXCEEDED 10% POWER WITH THE TURBINE UNLATCHED. A PRIMARY PLANT COOLDOWN OF APPROX .8 F/MIN. AND A PRIMARY DILUTION OF 58 PPM CONTRIBUTED TO THE POWER INCREASE. FOLLOWING THE TRIP, ALL CONTROL AND PROTECTION SYSTEMS FUNCTIONED AS EXPECTED. MAIN STEAM WAS ISOLATED AND THE TURBINE STOP VALVES WERE CLOSED TO LIMIT PRIMARY PLANT COOLDOWN. PRECAUTIONS WILL BE ADDED TO STATION PROCEDURES (OP-1.4 AND PT-15.1C) TO PREVENT TESTING THE STEAM DRIVEN AUXILIARY FEEDWATER PUMP NEAR THE P-10 SETPOINT WITHOUT THE MAIN TURBINE BEING LATCHED.

[224] SURRY 1 DOCKET 50-280 LER 84-017
 QUADRANT POWER TILT.
 EVENT DATE: 062084 REPORT DATE: 071784 NSSS: WE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190794) A QUADRANT POWER TILT OF GREATER THAN 2.0% EXISTED FOR GREATER THAN 24 HRS BECAUSE CONTROL ROD B-6 WAS STUCK AT THE 56 STEP POSITION. EXTENSIVE MONITORING IS BEING PERFORMED UNTIL THE CAUSE OF THE STUCK ROD IS DETERMINED DURING THE UPCOMING REFUELING OUTAGE.

[225] SURRY 2 DOCKET 50-281 LER 84-011 REV 1
 UPDATE ON POTENTIAL FAILURE OF NO. 3 EDG DUE TO FAILURE OF LOUVER CONTROLS.
 EVENT DATE: 041784 REPORT DATE: 050884 NSSS: WE TYPE: PWR

(NSIC 190603) DURING A REVIEW OF 10 CFR 50, APPENDIX R COMPLIANCE, VEPCO WAS INFORMED OF A POTENTIALLY SIGNIFICANT DEFICIENCY IN THE NO. 3 EMERGENCY DIESEL GENERATOR (EDG) LOUVER CONTROL SYSTEM THAT WOULD RESULT IN AN UNANALYZED CONDITION. DURING A DESIGN BASIS EVENT ON UNIT 2, THE NO. 3 EDG COULD OVERHEAT WITHIN 5-7 MINS DUE TO THE FAILURE OF THE ENGINE LOUVERS TO OPEN. DURING THE ORIGINAL DESIGN OF THE UNITS, THE CONDITION WAS NOT IDENTIFIED. UPON DISCOVERY, THE ENGINE LOUVERS FOR NO. 3 EDG WERE MECHANICALLY BLOCKED OPEN. APPROPRIATE MODIFICATIONS WILL BE EVALUATED AND IMPLEMENTED AS NECESSARY.

[226] SUSQUEHANNA 1 DOCKET 50-387 LER 83-141 REV 1
 UPDATE ON DIESEL GENERATOR OUTPUT BREAKER FAILS TO OPEN.
 EVENT DATE: 092883 REPORT DATE: 060184 NSSS: GE TYPE: BWR

(NSIC 190501) DURING THE DIESEL GENERATOR 'D' MONTHLY OPERABILITY SURVEILLANCE, ITS OUTPUT BREAKER WAS UNABLE TO BE OPENED FROM THE CONTROL ROOM. (THE DIESEL HAS STARTED, SYNCHRONIZED AND LOADED PROPERLY.) LCO 3.8.1.1 WAS ENTERED WHEN THE TRIP WAS ACCOMPLISHED BY USING THE TRIP PLUNGER ON THE BREAKER. THE THREE REMAINING DIESELS WERE AVAILABLE FOR OPERATION. THE LCO WAS CLEARED WITHIN FOUR HOURS AND THE DIESEL SURVEILLANCE COMPLETED SATISFACTORILY. THE CONTROL SCHEME, LOCAL SWITCH AND CONTROL POWER SUPPLY TO THE BREAKER WERE VERIFIED TO BE SATISFACTORY. THE BREAKER AUXILIARY CONTACT LINKAGE WAS ADJUSTED AND CYCLED PROPERLY DURING SUBSEQUENT SURVEILLANCE. AFTER A SIMILAR OCCURRENCE, MISALIGNED TRUCK OPERATED CELL (TOC) SWITCH CONTACTS ON THE BREAKER WERE FOUND AND ADJUSTED. OTHER UNIT 1 'Q' BREAKERS TOC SWITCHES WERE INSPECTED AND NO SIMILAR ANOMALIES WERE FOUND.

[227] SUSQUEHANNA 1 DOCKET 50-387 LER 84-012 REV 1
 UPDATE ON OFF-GAS HYDROGEN ANALYZERS - MISSED SURVEILLANCE.
 EVENT DATE: 022584 REPORT DATE: 061484 NSSS: GE TYPE: BWR

(NSIC 190562) DURING FEB 1984, THE FUNCTIONAL TESTING REQUIREMENTS OF SI-072-201, "MONTHLY FUNCTIONAL TEST OF OFF-GAS HYDROGEN ANALYZERS AIR-06973A, B" WERE SCHEDULED TO BE MET BY THE PERFORMANCE OF THE QUARTERLY SURVEILLANCE PROCEDURE, SI-072-301. THE DUE DATE AND VIOLATION DATE WERE, HOWEVER, INADVERTENTLY OMITTED FROM THE SURVEILLANCE AUTHORIZATION (SA) COVER SHEET FOR SI-072-301; AS A RESULT, THE FOREMAN WAS UNAWARE OF THE VIOLATION DATE FOR THE TEST. THE FUNCTIONAL TEST WAS COMPLETED FOR THE HYDROGEN ANALYZER CHANNEL A OF THE OFF-GAS SYSTEM ON 2/23/84 AND FOR CHANNEL B ON 2/29/84. THE VIOLATION DATE WAS 2/25/84. THE MISSED SURVEILLANCE FOR THE CHANNEL B HYDROGEN ANALYZER WAS DISCOVERED AT 1400 HRS ON FEB 29, 1984 UPON COMPLETION OF SI-072-301. CORRECTIVE ACTIONS WERE TAKEN BY CHANGES IN ADMINISTRATIVE PROCEDURES THAT REQUIRE THE INCLUSION OF A STATEMENT IN THE SURVEILLANCE AUTHORIZATION COVER SHEET FOR SURVEILLANCE TESTING REQUIREMENTS NEEDING TO BE MET BY A SIMILAR PROCEDURE OF DIFFERENT SURVEILLANCE FREQUENCIES. SINCE THE OFF-GAS SYSTEM HYDROGEN RECOMBINER FUNCTIONED PROPERLY, NO ABNORMAL CONCENTRATIONS OF H2 OCCURRED AND DIVERSE SYSTEM ISOLATION/ALARMS EXISTED.

[228] SUSQUEHANNA 1 DOCKET 50-387 LER 84-017 REV 1
 UPDATE ON EMERGENCY SERVICE WATER SPRAY NETWORKS FROZEN.
 EVENT DATE: 031084 REPORT DATE: 060684 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: SUSQUEHANNA 2 (BWR)
 VENDOR: SPRAY ENGINEERING COMPANY

(NSIC 190563) THE A-1 (89 RISERS) AND B-2 (43 RISERS) SPRAY POND RISER NETWORKS WERE FOUND TO BE FROZEN DURING THE PERFORMANCE OF A WEEKLY PREVENTIVE MAINTENANCE ACTIVITY TO PUMP DOWN THE RISERS. AFTER FOUR DAYS OF MILD WEATHER, ALL FOUR NETWORKS WERE THAWED OUT AND SUCCESSFULLY PUMPED DOWN. UNIT 1 WAS SHUT DOWN THROUGHOUT THE EVENT; UNIT 2 WAS IN A PRE-FUEL LOAD STATUS. ALL SPRAY HEADERS AND RISERS WERE INSPECTED AND NO DAMAGE WAS FOUND. THE NETWORKS WERE PUMPED DOWN EVERY TWO DAYS AND MONITORED FOR LEAKAGE EVERY DAY UNTIL MAR 31, 1984, WHEN IT WAS CONSIDERED THAT THE PROBABILITY OF THE RISERS FREEZING AGAIN WOULD BE VERY LOW. LONG TERM FIXES ARE BEING INVESTIGATED THAT WILL ENSURE THAT FREEZING OF THE SPRAY NETWORKS DOES NOT OCCUR AGAIN.

[229] SUSQUEHANNA 1 DOCKET 50-387 LER 84-024
 REACTOR BUILDING VENTILATION ZONES.
 EVENT DATE: 042284 REPORT DATE: 052284 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: SUSQUEHANNA 2 (BWR)

(NSIC 190750) THE STATION'S REACTOR BLDG VENTILATION ZONES WERE INADVERTENTLY CROSS-CONNECTED CONTRARY TO THE PROVISIONS OF TECH SPEC 3.6.5.1. THE CONDITION WAS RECTIFIED WITHIN 25 MINS OF DISCOVERY. PROCEDURAL CHANGES HAVE BEEN IMPLEMENTED TO PREVENT RECURRENCE OF THIS EVENT.

[230] SUSQUEHANNA 1 DOCKET 50-387 LER 84-028
 TRANSFORMER ISOLATES ON LIGHTNING STRIKE CAUSING SCRAM.
 EVENT DATE: 061384 REPORT DATE: 071384 NSSS: GE TYPE: BWR

(NSIC 190809) AS A RESULT OF A LIGHTNING STRIKE ON A 230KV TRANSMISSION LINE, THE UNIT 1 STARTUP TRANSFORMER T-10 ISOLATED, ONE OF TWO SOURCES OF OFFSITE POWER. THE LOSS OF THE T-10 TRANSFORMER CAUSED A TRIP TO THE UNIT 1 AND UNIT 2 'A' REACTOR PROTECTION SYSTEM (RPS). REACTOR BLDG ZONE I, II AND III HVAC SYSTEMS TRIPPED AND STANDBY GAS TREATMENT SYSTEM INITIATED DUE TO THE LOSS OF RPS. THE EFFECT ON FEEDWATER AND REACTOR RECIRCULATION CONTROLS CAUSED A REACTOR VESSEL LEVEL INCREASE WHICH RESULTED IN A REACTOR SCRAM. PLANT SYSTEMS RESPONDED AS DESIGNED AND RESULTED IN THE SAFE SHUTDOWN OF THE NUCLEAR POWER PLANT. THIS EVENT IS REPORTABLE PER 10CFR50.73(A)(2)(IV) SINCE AN UNPLANNED ENGINEERED SAFETY FEATURES (ESF) ACTUATION OCCURRED AND THE RPS TRIPPED.

[231] SUSQUEHANNA 2 DOCKET 50-388 LER 84-006
 REACTOR SHUT DOWN DUE TO INOPERABILITY OF ONE LOOP OF LOW PRESSURE CORE INJECTION.
 EVENT DATE: 052884 REPORT DATE: 062784 NSSS: GE TYPE: BWR

(NSIC 190564) AT 0530 HRS ON 5/28/84, SHUTDOWN OF THE UNIT 2 REACTOR COMMENCED FROM LOW POWER TESTING AT A POWER LEVEL OF 2% IN ACCORDANCE WITH ACTION STATEMENT (B)(3) OF TECH SPEC 3.5.1.B.2 DUE TO THE INOPERABILITY OF THE 'B' LOOP OF THE LPCI SYSTEM (ALSO REFER TO LER 84-008). THE LCO WAS INCURRED AT 0615 HRS ON 5/21/84 WHEN THE LPCI INJECTION VALVE HV-2F015B WAS CLOSED AND DE-ENERGIZED PER TECH SPEC 3.6.3 FOLLOWING THE OCCURRENCE OF DUAL INDICATION ON THE TESTABLE CHECK VALVE HV-2F050B AND ITS BYPASS VALVE HV-2F122B. LATER THAT DAY, THE RHR THROTTLE VALVE HV-2F017B WAS CLOSED AND HV-2F015B WAS CYCLED IN AN ATTEMPT TO SEAT HV-2F050B; WHEN HV-2F017B WAS REOPENED THE 'B' RHR PRIMARY SIDE HEAT EXCHANGER PRESSURE WAS OBSERVED INCREASING. VALVE HV-2F017B WAS CLOSED. ON 5/24/84 A LLRT SHOWED LEAKAGE WAS OCCURRING THRU HV-2F015B AND THIS LEAKAGE WAS THE SOURCE OF PRESSURIZATION OF THE HEAT EXCHANGER; LCO 3.4.3.2 WAS INCURRED AT THIS TIME AND VALVE HV-2F017B WAS DE-ENERGIZED TO ENSURE SEPARATION BETWEEN THE HIGH AND LOW PRESSURE PORTIONS OF THE 'B' RHR. LOOP B LPCI REMAINED INOPERABLE AND THE REACTOR WAS SHUT DOWN IN 7 DAYS PER TECH SPEC 3.5.1.B.2. LPCI INJECTION VALVE HV-2F015B WAS DISASSEMBLED, REPAIRED AND RETURNED TO SERVICE. A LOOSE PLATE CONNECTOR ON VALVE HV-2F122B WAS FOUND TO BE THE CAUSE FOR DUAL INDICATION; THE PLATE CONNECTOR'S SET SCREWS WERE TIGHTENED AND THE VALVE RETURNED TO SERVICE ON 5/30/84.

[232] SUSQUEHANNA 2 DOCKET 50-388 LER 84-009
 VACUUM BREAKER DUAL INDICATION.
 EVENT DATE: 061184 REPORT DATE: 071184 NSSS: GE TYPE: BWR
 VENDOR: MICRO SWITCH

(NSIC 190692) DURING THE PERFORMANCE OF A 31-DAY OPERABILITY CHECK OF THE TEN SUPPRESSION CHAMBER-DRYWELL VACUUM BREAKERS, DUAL POSITION INDICATION WAS RECEIVED FOR ONE BREAKER AND THE CONTAINMENT VACUUM BREAKER DIV I OPEN ALARM WAS RECEIVED. LIMITING CONDITION FOR OPERATION 3.6.4 WAS ENTERED AND ACTION

STATEMENT B CARRIED OUT. IN ANTICIPATION OF SUPPRESSION CHAMBER ENTRY TO CORRECT THE POSITION INDICATION EQUIPMENT THE UNIT WAS SHUT DOWN. THE VACUUM BREAKER'S LIMIT SWITCH ACTUATING BOLTS WERE ADJUSTED TO YIELD CORRECT BREAKER CLOSED INDICATION. ALL VACUUM BREAKERS WERE RETESTED SUCCESSFULLY.

[233] THREE MILE ISLAND 1 DOCKET 50-289 LER 84-004
 MISPLUGGED STEAM GENERATOR TUBE.
 EVENT DATE: 060283 REPORT DATE: 080784 NSSS: BW TYPE: PWR

(NSIC 190715) SUBSEQUENT TO THE PERFORMANCE OF A BUBBLE TEST ON THE 'A' STEAM GENERATOR (OTSG) (IEEE STD. 803A CODE 'SG') IT WAS DISCOVERED THAT TUBE #A-135-82 WAS NOT PLUGGED ALTHOUGH IT WAS REQUIRED TO BE PLUGGED IN JUN OF 1983. AN ADJACENT TUBE (IEEE STD. 803A CODE 'TBG') (#A-134-74), WHICH WAS NOT REQUIRED TO BE PLUGGED, WAS DISCOVERED PLUGGED. TUBE #A-134-74 WAS APPARENTLY MISTAKENLY PLUGGED WHILE TUBE #A-135-72 WAS LEFT UNPLUGGED. A COMPLETE PHOTOGRAPHIC REVERIFICATION OF ALL PLUGGED TUBES CONTAINING WESTINGHOUSE FOLDED PLUGS AND B&W WELDED PLUGS WAS PERFORMED AND NO OTHER INCIDENTS OF TUBE MISPLUGGING WERE FOUND. TUBE #A-135-72 WAS PLUGGED WITH MANUALLY WELDED PLUG (IEEE STD. 803A CODE 'CON').

[234] THREE MILE ISLAND 1 DOCKET 50-289 LER 84-001 REV 1
 UPDATE ON INOPERABLE FIRE BARRIER PENETRATION SEALS.
 EVENT DATE: 042784 REPORT DATE: 062984 NSSS: BW TYPE: PWR

(NSIC 190714) AT 1420 HRS ON APR 27, 1984, RELAY ROOM FLOOR FIRE BARRIER PENETRATION SEAL 735 WAS IDENTIFIED TO BE IN DEFICIENT CONDITION. NO SEAL MATERIAL HAD BEEN INSTALLED IN THE CONDULET. A FIRE WATCH HAD NOT BEEN ESTABLISHED WITHIN 1 HR OF THE ONSET OF THE DEFICIENT CONDITION, THUS VIOLATING TECH SPEC 3.18.7.2. THIS EVENT IS REPORTABLE PURSUANT TO 10 CFR 50.73(A)(2)(I)(B). THE DEFICIENT CONDITION OF SEAL 735 IS POTENTIALLY APPLICABLE TO SIMILAR FIRE SEALS THAT WERE REQUIRED TO BE INSTALLED BETWEEN APR 1979 AND NOV 7, 1983. THIS IS EVIDENCED BY THE IDENTIFICATION OF THE SAME DEFICIENT CONDITION IN TWO SEALS SUBSEQUENT TO THE IDENTIFICATION OF SEAL 735. FIRE SEALS IN NEW CONDUITS INSTALLED BETWEEN APR 1979 AND NOV 7, 1983 WERE INSPECTED AND REPAIRED UPON DISCOVERY. THE SAFETY CONSEQUENCES AND IMPLICATION OF THE DEFICIENCY IN THE SEAL 735 AND OTHERS WHICH WERE IDENTIFIED DURING THE INSPECTION ARE SIMILAR.

[235] THREE MILE ISLAND 1 DOCKET 50-289 LER 84-002
 INADVERTENT PARTIAL ESAS ACTUATION OCCURS.
 EVENT DATE: 060384 REPORT DATE: 070384 NSSS: BW TYPE: PWR
 VENDOR: CLARK CONTROLLER

(NSIC 190549) AT APPROX 11:55 A.M. ON JUN 3, 1984, A PARTIAL ESAS ACTUATION OCCURRED. THIS WAS THE RESULT OF FAILURES OF THE ESAS RELAYS IN CONJUNCTION WITH MAINTENANCE TESTING. THESE AND SUBSEQUENT RELAY FAILURES HAVE BEEN EXPERIENCED SINCE MAY WHEN ALL ESAS RELAY COILS WERE REPLACED. THESE COILS WERE REPLACED TO FULFILL A COMMITMENT IN LER 83-024/99X WHERE THE CAUSE OF EARLIER FAILURES WAS SUSPECTED TO BE AN END OF COIL LIFE CONDITION. TWO COIL FAILURES SINCE JUN 3, 1984 HAVE INVOLVED THE SAME TWO RELAYS. ON JUN 30, 1984 ANOTHER PARTIAL ESAS ACTUATION OCCURRED WHICH INVOLVED A RELAY WHOSE COIL WAS REPLACED ON JUN 4, 1984. THE CAUSE OF THESE RELAY FAILURES IS ATTRIBUTED TO BINDING OF THE XKPM-10 MAGNET KIT AND THE ARMATURE ROD OF THE RELAY CATCHING ON THE MOLDED EPOXY COIL LIP RESULTING IN OVERHEATING AND BURNOUT OF THE COIL. INVESTIGATIONS CONTINUE AND CORRECTIVE ACTION WILL BE TAKEN BASED ON THESE FINDINGS. A NEW STEP IN THE PROCEDURE WILL BE ADDED TO THE CORRECTIVE MAINTENANCE PROCEDURE TO HELP PREVENT FUTURE ESAS ACTUATIONS DURING MAINTENANCE. ALTERNATIVES TO THE CLARK RELAYS ARE BEING EVALUATED. RELAY FAILURES OF THIS TYPE RESULT IN INADVERTENT SAFETY ACTUATIONS.

[236] THREE MILE ISLAND 1 DOCKET 50-289 LER 84-003
 MISSING FIRE BARRIER PENETRATION SEALS.
 EVENT DATE: 070284 REPORT DATE: 080184 NSSS: BW TYPE: PWR

(NSIC 190664) ON JUL 2, 1984, 2 PENETRATIONS IN THE INSTRUMENT SHOP FLOOR (355 FT. ELEVATION OF THE CONTROL BLDG, FIRE AREA CB4A) WERE IDENTIFIED AS NOT HAVING FIRE-RATED PENETRATION SEALS. PLANT ENGINEERING CONDUCTED A SURVEY OF FIRE AREA CB4A AS A FOLLOW-UP. 10 ADDITIONAL PENETRATIONS WERE FOUND TO BE MISSING FIRE-RATED SEALS. THE MISSING SEALS IDENTIFIED ON JUL 2 ARE REPORTABLE PER 10 CFR 50.73(A)(2)(I)(B) BECAUSE THE CONDITION EXISTED LONGER THAN THE TIME ALLOWED BY THE ACTION STATEMENT OF TECH SPEC 3.18.7.2 BEFORE A FIREWATCH WAS ESTABLISHED. THE OTHER SEALS IDENTIFIED ARE REPORTABLE PER CONDITION 4 OF THE TMI-1 OPERATING LICENSE WHICH REQUIRES COMPLIANCE WITH THE FIRE PROTECTION SAFETY EVALUATION RPT. THE SER OF SEP 19, 1979 REQUIRED THESE SEALS TO BE INSTALLED IN PENETRATIONS BY APR 27, 1979. THE SEALS IDENTIFIED AS MISSING WERE PART OF THE INITIAL SEAL INSTALLATION PROGRAM. THE INSTALLATION PROGRAM WAS PERFORMED BY A CONTRACTOR. INADEQUATE SUPERVISION OF THE WORKERS INSTALLING SEALS IS BEING IDENTIFIED AS THE CAUSE OF THE MISSING SEALS. THE MISSING SEALS DID NOT PRESENT THREATS TO THE INTEGRITY OF THE FIRE BARRIER. AN INSPECTION OF THE OTHER CONDUIT PENETRATING FIRE BARRIERS IS PLANNED AS CORRECTIVE ACTION. THE INSPECTION AND ANY NECESSARY SEAL WORK WILL BE DOCUMENTED IN A FOLLOW-UP REPORT TO BE SUBMITTED BY NOV 30, 1984.

[237] THREE MILE ISLAND 2 DOCKET 50-320 LER 84-008
 FAILURE OF LEVEL TRANSMITTERS FOR CORE FLOOD TANKS.
 EVENT DATE: 040184 REPORT DATE: 062084 NSSS: BW TYPE: PWR
 VENDOR: BAILEY METER COMPANY

(NSIC 190616) IN JULY 1981, CORE FLOOD TANK 'B' PRESSURE TRANSMITTER CF-1-PT3 AND LEVEL TRANSMITTER CF-2-LT3 WERE REMOVED FROM THE THREE MILE ISLAND UNIT 2 (TMI-2) REACTOR BLDG AND EVALUATED BY EG&G IDAHO, INC., AT THE IDAHO NATIONAL ENGINEERING LABORATORY (INEL). CF-1-PT3, A FOXBORO TYPE E11GM-HSAD1 STYLE B UNIT, WAS DETERMINED TO BE IN OPERATING CONDITION; HOWEVER, CF-2-LT3, A BAILEY METER COMPANY TYPE BY8231X-A UNIT, WAS INOPERABLE DUE TO SIGNIFICANT INTERNAL CORROSION. SUBSEQUENTLY, IN JUNE 1983, ONE PRESSURE TRANSMITTER AND TWO LEVEL TRANSMITTERS FOR CORE FLOOD TANK 'A' WERE REMOVED FROM THE TMI-2 REACTOR BLDG AND EVALUATED AT INEL. THE FOXBORO UNIT, CF-1-PT1, WAS EVALUATED TO BE OPERABLE, WHEREAS THE TWO BAILEY UNITS, CF-2-LT1 AND CF-2-LT2, WERE INOPERABLE AS A RESULT OF EXTENSIVE INTERNAL CORROSION. THE CAUSE OF THE FAILURES OF THE BAILEY UNITS IS BELIEVED TO BE DUE TO LEAKAGE OF WATER INTO THE TRANSMITTER HOUSING BY WAY OF THE ELECTRICAL CONDUITS. THE RESULTS OF THESE EVALUATIONS ARE REPORTED IN GEND INF 029, VOLUME I AND II PUBLISHED IN FEB 1983 AND APR 1984, RESPECTIVELY.

[238] THREE MILE ISLAND 2 DOCKET 50-320 LER 84-009
 FAILURE OF INCORE THERMOCOUPLE N-4.
 EVENT DATE: 061884 REPORT DATE: 071784 NSSS: BW TYPE: PWR
 VENDOR: BELFAB, INC.

(NSIC 190672) AT 1600 HRS ON JUN 18, 1984, INCORE THERMOCOUPLE N-4 WAS DECLARED INOPERABLE. THE INCORE THERMOCOUPLE WAS CHECKED TO ENSURE THAT THE PROBLEM IS NOT IN ANY COMPONENT THAT IS ACCESSIBLE FOR REPAIRS. NO FURTHER ACTION IS CONSIDERED APPLICABLE. THE PRECISE REASON FOR THE FAILURE/ERRATIC BEHAVIOR OF INCORE THERMOCOUPLE N-4 IS NOT KNOWN AND MAY NOT BE POSSIBLE TO DETERMINE GIVEN THE CONDITION OF THE UNIT 2 CORE RELATIVE TO INCORE INSTRUMENTATION. AT THE TIME OF THE OCCURRENCE, THE UNIT 2 FACILITY WAS IN A LONG-TERM COLD SHUTDOWN STATE. THE REACTOR DECAY HEAT WAS BEING REMOVED VIA LOSS TO AMBIENT. THROUGHOUT THE EVENT THERE WAS NO EFFECT ON THE REACTOR COOLANT SYSTEM OR THE CORE. TO DATE, 12 LER'S, INCLUDING THIS ONE, CONCERN THERMOCOUPLE FAILURES. THE OTHERS ARE LER 80-13, 80-41, 80-50, 80-53, 81-05, 81-13, 82-15, 83-10, 83-27, 83-32, AND 83-50.

THERE ARE NOW 19 OF THE 52 INCORE THERMOCOUPLES REPORTED AS BEING OUT-OF-SERVICE (B-7, D-14, E-11, F-8, G-5, H-9, H-13, K-11, K-12, L-6, L-11, L-13, M-7, M-9, N-4, N-8, N-9, O-6, AND O-12). THE FAILED THERMOCOUPLE WAS A TYPE K (CHROMIUM/ALUMEL) THERMOCOUPLE, MODEL NO. DAZA-76-7R-1B-1T-1C, SUPPLIED BY BABCOCK AND WILCOX, MANUFACTURED BY BEL FAB, INC.

[239] THREE MILE ISLAND 2 DOCKET 50-320 LER 84-010
OPERATION OF CONTAINMENT ISOLATION VALVES WITHOUT PROPER APPROVAL.
EVENT DATE: 062884 REPORT DATE: 072684 NSSS: BW TYPE: PWR

(NSIC 190799) UNIT WORK INSTRUCTION (UWI) 4370-3824-84-T33, "REACTOR BLDG CHILLED WATER PUMP PRE-OP TEST," INCLUDES A VALVE LINEUP REQUIREMENT WHICH CALLS FOR THE OPENING OF SPECIFIED CONTAINMENT ISOLATION VALVES. PER TECH SPEC 3.6.1.1, SUCH VALVES ARE REQUIRED TO BE CLOSED "WHEN NOT REQUIRED OPEN PER PROCEDURES APPROVED PURSUANT TO SPEC 6.8.2"; I.E., IS, SAFETY REVIEW GROUP (SRG) CONCURRENCE AND NRC APPROVAL IS REQUIRED. THE SUBJECT UWI WAS USED TO PERFORM THE TEST AND OPENED SEVERAL CONTAINMENT ISOLATION VALVES WITHOUT REQUIRED UWI APPROVALS CONTRARY TO TECH SPEC 3.6.1. THIS LER IS SIMILAR IN NATURE TO LER 83-19.

[240] TROJAN DOCKET 50-344 LER 84-011
INADVERTENT SAFETY INJECTION WHILE TRANSFERRING 120-VOLT AC INSTRUMENT POWER SUPPLY.
EVENT DATE: 050884 REPORT DATE: 060784 NSSS: WE TYPE: PWR

(NSIC 190510) ON MAY 8, 1984, AT 1632 WHILE PERFORMING ANNUAL REFUELING CALIBRATIONS IN ACCORDANCE WITH MAINTENANCE PROCEDURE 2-0, "INSTALLED PLANT INSTRUMENTATION MAINTENANCE," ON REACTOR PROTECTION SET 1 OF TROJAN'S SOLID STATE PROTECTION SYSTEM, AN INADVERTENT SAFETY INJECTION ACTUATION OCCURRED. THE ACTUATION TOOK PLACE WHEN THE 120-VOLT AC INSTRUMENT POWER SUPPLY FOR PROTECTION SET 2 WAS TRANSFERRED FROM ITS ALTERNATE 120-VOLT AC NONPREFERRED BUS (Y02) TO ITS NORMAL POWER SUPPLY (INVERTER NO. 2 - 726). THE PLANT WAS IN MODE 6 AT THE TIME OF THE INCIDENT AND NO WATER WAS INJECTED INTO THE REACTOR COOLANT SYSTEM.

[241] TURKEY POINT 3 DOCKET 50-250 LER 82-020
INADEQUATE TESTING OF EMERGENCY DIESEL GENERATORS.
EVENT DATE: 051182 REPORT DATE: 072384 NSSS: WE TYPE: PWR

(NSIC 190647) INADEQUATE SURVEILLANCE TESTING OF THE EMERGENCY DIESEL GENERATORS (EDG) WAS PERFORMED BETWEEN 5/11/82 AND 6/7/84 FOR TESTS REQUIRED BY TECH SPECS 4.8.1.A.6 AND 4.8.1.C.6(C), 14 DAY AND 18 MONTH TESTS, RESPECTIVELY, IN THAT INSUFFICIENT DATA WERE RECORDED TO VERIFY SATISFACTORY PERFORMANCE OF THE EDG COOLING SYSTEM. DURING THIS TIME INTERVAL, THE EDG DID NOT EXHIBIT INADEQUATE FUNCTIONING OF THE COOLING SYSTEM. THIS IS REPORTABLE PURSUANT TO TECH SPEC 6.9.2.6.3. THE ROOT CAUSE STEMS FROM AN INADEQUATE REVIEW OF OPERATING PROCEDURE 4304.1. EDG PERIODIC TEST LOAD ON 4KV BUS & 4304.3, EDG-EIGHT HOUR FULL LOAD TEST AND LOAD REJECTION WITH REGARD TO IMPLEMENTATION OF TECH SPEC AMENDMENTS 82/76 ISSUED 4/5/82, WHICH UPGRADED EDG SURVEILLANCE TEST REQUIREMENTS TO VERIFY SATISFACTORY PERFORMANCE OF THE EDG COOLING SYSTEM. THE PROCEDURES HAVE BEEN REVISED.

[242] TURKEY POINT 3 DOCKET 50-250 LER 82-021
EMERGENCY DIESEL GENERATORS NOT COMPLETELY TESTED.
EVENT DATE: 051182 REPORT DATE: 073084 NSSS: WE TYPE: PWR

(NSIC 190648) SELF INITIATED AUDITS REVEALED INADEQUATE SURVEILLANCE TESTING OF THE EMERGENCY DIESEL GENERATORS (EDG) FOR TESTS REQUIRED BY TECH SPEC 4.8.1.A.5. IN THAT THE EDGS WERE NOT LOADED TO > OR = 2500 KW WITHIN 10 MINUTES OF BEING

STARTED DURING PERFORMANCE OF OPERATING PROCEDURE 4304.1. THIS IS REPORTABLE PURSUANT TO TECH SPEC 6.9.2.B.3. THE ROOT CAUSE STEMS FROM AN INADEQUATE REVIEW OF OPERATING PROCEDURE 4304.1, EDG PERIODIC TEST LOAD ON 4KV BUS WITH REGARDS TO IMPLEMENTATION OF TECH SPEC AMENDMENTS 82/76, WHICH UPGRADED EDG SURVEILLANCE TEST REQUIREMENTS TO VERIFY THAT THE EDG WAS LOADED TO > OR = 2500 KW WITHIN 10 MINUTES OF STARTING THE EDG. THE PROCEDURE HAS BEEN REVISED TO CLEARLY REFLECT THE TECH SPEC REQUIREMENTS AND TESTING HAS BEEN COMPLETED.

[243] TURKEY POINT 3 DOCKET 50-250 LER 84-017
 PRIMARY WATER STORAGE TANK ISOLATED FOR MAINTENANCE OF VALVE.
 EVENT DATE: 060784 REPORT DATE: 070984 NSSS: WE TYPE: PWR
 VENDOR: ITT GRINNELL

(NSIC 190539) ON JUNE 7, 1984, AT 3:00 P.M., A PRIMARY WATER VALVE (3-220) WAS DISCOVERED TO BE LEAKING. AN EVALUATION DETERMINED THAT THE PRIMARY WATER STORAGE TANK (PWST) WOULD HAVE TO BE ISOLATED TO ISOLATE THE LEAK BUT THAT THE REPAIR WOULD ONLY TAKE ONE TO TWO HOURS. THE MATERIALS FOR THE VALVE REPAIR WERE ASSEMBLED AND AT 6:20 P.M., THE PWST WAS ISOLATED TO REPAIR VALVE 3-220. THE ISOLATION OF THE LEAK RESULTED IN THE UNIT NOT BEING IN COMPLIANCE WITH TECH SPEC 3.6.C.6, HOWEVER, TECH SPEC 3.0.1 ALLOWED SUFFICIENT TIME TO REPAIR THE VALVE WITHOUT A UNIT POWER REDUCTION. THE VALVE WAS REPAIRED BY REPLACING THE STEM AND DIAPHRAGM. THE REPAIRS WERE COMPLETED AND THE PWST RETURNED TO SERVICE AT 7:56 P.M., ON THE SAME DAY. UNIT 3 OPERATION AT FULL POWER WAS UNAFFECTED DURING THIS TIME. THE VOLUME OF WATER IN THE PWST REMAINED ABOVE TECH SPEC REQUIREMENTS, HOWEVER, THE ABILITY TO SUPPLY PRIMARY WATER TO THE PRIMARY WATER SYSTEM WAS DEGRADED. NO EFFECT ON THE ABILITY TO BORATE THE REACTOR COOLANT SYSTEM RESULTED. A SIGNIFICANT EVENT NOTIFICATION WAS MADE TO NRCOC VIA ENS PURSUANT TO 10 CFR 50.36(C)(2). SIMILAR OCCURRENCES: NONE.

[244] TURKEY POINT 3 DOCKET 50-250 LER 84-019
 REACTOR COOLANT SYSTEM LEAKAGE CAUSES MANUAL SHUTDOWN.
 EVENT DATE: 062584 REPORT DATE: 072584 NSSS: WE TYPE: PWR
 VENDOR: ROCKWELL-INTERNATIONAL

(NSIC 190792) ON JUN 25, 1984, UNIT 3 WAS SHUT DOWN FROM 100% POWER DUE TO A REACTOR COOLANT SYSTEM (RCS) LEAK OF APPROX 10 GPM. THE ROOT CAUSE WAS DETERMINED TO STEM FROM A PACKING LEAK DUE TO A BROKEN GLAND FOLLOWER ON VALVE 3-532, THE LOWER ISOLATION VALVE ON THE INSTRUMENT SENSING LINE TO LT-3-460. THE AFFECTED LOOP BISTABLES WERE TRIPPED IN ACCORDANCE WITH OPERATING PROCEDURE 0208.14, THUS SATISFYING THE TECH SPEC REQUIREMENT FOR MINIMUM DEGREE OF REDUNDANCY FOR REACTOR TRIP SIGNALS ON PRESSURIZER HIGH WATER LEVEL. DURING A RCS COOLDOWN TO AFFECT REPAIRS, VALVE 3-532 WAS MANUALLY BACKSEATED AND STOPPED THE LEAK. IMMEDIATE CORRECTIVE ACTIONS INCLUDED: (1) A MANUAL UNIT SHUTDOWN AND SUBSEQUENT COOLDOWN TO REPAIR VALVE, (2) ORIGINAL VALVE PACKING GLAND FLANGE WAS REPLACED WITH A "STRONG-BACK" PLATE AND WASHER, AND (3) AN OVERPRESSURE TEST AND VISUAL LEAK CHECK OF THE RCS WERE PERFORMED AND SATISFACTORILY COMPLETED. THE LONG TERM CORRECTIVE ACTION TO BE TAKEN IS TO REPLACE THE TEMPORARY "STRONG-BACK" WITH A PERMANENT ENGINEERED DEVICE DURING THE NEXT REFUELING OUTAGE. SIMILAR OCCURRENCES: NONE.

[245] TURKEY POINT 3 DOCKET 50-250 LER 84-018
 DESIGN DEFICIENCY IN CONTROL CIRCUITRY FOR MOV 863A AND B.
 EVENT DATE: 071784 REPORT DATE: 072484 NSSS: WE TYPE: PWR

(NSIC 190593) ON JUL 17, 1984, TURKEY POINT WAS NOTIFIED BY BECHTEL OF A 10 CFR PART 21 DEFICIENCY CONCERNING THE CONTROL CIRCUITRY FOR PRESSURE CONTROLLERS PC600 AND PC601. THE CONTROL CIRCUITRY IS POWERED BY A SINGLE NON-VITAL SOURCE AND LOSS OF POWER WILL RESULT IN DE-ENERGIZING THE INTERLOCKING RELAYS TO

SAFETY-RELATED VALVES MOV-862A, 862B, 863A, AND 863B IN THE RHR PUMP SUCTION AND DISCHARGE LINES RESULTING IN THE REACTOR OPERATORS BEING UNABLE TO OPEN THE VALVES FROM THE CONTROL ROOM. WHEN IN A POST-LOCA CONDITION, THE SWITCH-OVER TO HIGH HEAD RECIRCULATION PHASE REQUIRES THAT MOV-862A AND B BE CLOSED AND MOV-863A AND B BE OPENED. THIS DEFECT, COINCIDENT WITH A LOSS OF POWER, WILL NOT AFFECT THE ABILITY TO CLOSE MOV-862A AND B BUT IT WOULD NECESSITATE THE MANUAL OPENING OF MOV-863A AND B, IF RADIOLOGICAL CONDITIONS IN THE AREA PERMIT SUCH ACTION. THE INABILITY TO OPEN THESE VALVES COULD HAMPER THE ABILITY TO ADEQUATELY COOL THE CORE. IMMEDIATE CORRECTIVE ACTIONS INCLUDE: 1) PROVIDING JUMPERS AND TOOLS TO BYPASS THE PRESSURE CONTROL INTERLOCK ALLOWING THE VALVES TO BE OPENED FROM THE CONTROL ROOM, 2) LABELING OF THE APPROPRIATE RELAY RACKS AND THE TERMINAL STRIPS AND CONTACTS, FOR THE RESPECTIVE VALVES, ON THE INSIDE OF THE RACK DOORS, 3) TRAINING OF ALL REACTOR OPERATORS ON ACTIONS TO TAKE VIA A TRAINING BRIEF, AND 4) EMERGENCY PROCEDURE E-1 HAS BEEN REVISED TO INCLUDE INSTRUCTIONS ON HOW AND WHEN TO INSTALL THE JUMPERS.

[246] TURKEY POINT 4 DOCKET 50-251 LER 84-009
 LOSS OF CONTAINMENT INTEGRITY.
 EVENT DATE: 052784 REPORT DATE: 062884 NSSS: WE TYPE: PWR
 VENDOR: ITT GRINNELL

(NSIC 190541) ON MAY 27, 1984, WHILE UNIT 4 WAS AT HOT SHUTDOWN, AN ATTEMPT WAS MADE TO DRAIN THE REACTOR COOLANT DRAIN TANK (RCDT). LOW FLOW WAS OBSERVED FROM THE DISCHARGE OF THE RCDT PUMPS. FOLLOWING INVESTIGATIONS, IT WAS DETERMINED THAT THE LOW FLOW WAS CAUSED BY BLOCKAGE IN FCV-4-4668A (PHASE A CONTAINMENT ISOLATION VALVE). MAINTENANCE FOUND AND REPLACED A DAMAGED DIAPHRAGM. ON MAY 28, 1984, WITH THE UNIT 4 STILL AT HOT SHUTDOWN, LOW FLOW WAS AGAIN OBSERVED WHILE ATTEMPTING TO DRAIN THE RCDT. A DAMAGED DIAPHRAGM IN FCV-4-4668A WAS AGAIN DISCOVERED AND REPLACED. ADJUSTMENTS TO THE VALVE STROKE WERE MADE. ON MAY 29, 1984, A REVIEW OF THE SEQUENCE OF EVENTS AND RESPECTIVE CLEARANCES ISSUED TO PERFORM REPAIRS REVEALED THAT, EVEN THOUGH THERE WAS NO DIRECT FLOW PATH FROM CONTAINMENT TO THE OUTSIDE ENVIRONMENT, CONTAINMENT INTEGRITY WAS TECHNICALLY BREACHED. THE FLOW PATH FROM THE RCDT TO OUTSIDE ENVIRONMENT WAS ISOLATED BY MEANS OF VALVES NOT QUALIFIED AS CONTAINMENT ISOLATION VALVES. THIS IS CONTRARY TO TECH SPEC 1.25 AND THUS IT IS REPORTABLE UNDER 10 CFR 50.73. THE STATE OF FLORIDA AND NRCOC WERE PROPERLY NOTIFIED OF THE MAY 27, 1984 OCCURRENCE. THERE WAS NO POTENTIAL FOR RADIOACTIVE RELEASES TO THE ATMOSPHERE. AFTER A THIRD FAILURE ON MAY 30, IT WAS DISCOVERED THAT DAMAGED O-RINGS IN THE STEM GUIDE TO THE VALVE ACTUATOR WERE CAUSING THE DIAPHRAGM FAILURES.

[247] TURKEY POINT 4 DOCKET 50-251 LER 84-008
 PERSONNEL ERROR CAUSES REACTOR TRIP.
 EVENT DATE: 060184 REPORT DATE: 062884 NSSS: WE TYPE: PWR

(NSIC 190540) ON JUNE 1, 1984, A REACTOR TRIP OCCURRED. THE ROOT CAUSE WAS DETERMINED TO STEM FROM A PERSONNEL ERROR THAT RESULTED IN REACTOR POWER REACHING 10% WITH THE TURBINE IN A TRIPPED CONDITION AND OCCURRED DURING ATTEMPTS TO OPEN THE MAIN STEAM ISOLATION VALVES (MSIVS). THE MSIVS ARE OPENED ONLY AFTER EQUALIZING THE STEAM GENERATOR PRESSURES WITH THE STEAM HEADER PRESSURE. THIS IS ACCOMPLISHED BY OPENING THE ASSOCIATED BYPASS VALVES AROUND THE MSIVS AND INCREASING ATMOSPHERIC STEAM DUMP IN THE RESPECTIVE HEADERS TO REDUCE THE PRESSURE UPSTREAM OF THE MSIVS. THE STEAM USAGE ASSOCIATED WITH EQUALIZING THE STEAM PRESSURE ACROSS THE MSIVS REDUCES THE AVERAGE REACTOR COOLANT SYSTEM TEMPERATURE (TAVG). DURING ATTEMPTS TO OPEN THE MSIVS, THE LICENSED OPERATOR INCREASED REACTOR POWER IN ANTICIPATION OF A SAGGING T(AVG). HOWEVER, REACTOR POWER REACHED 10% DURING THE EVOLUTION AND SINCE THE TURBINE WAS IN A TRIPPED CONDITION, A REACTOR TRIP RESULTED. ALL EQUIPMENT FUNCTIONED AS DESIGNED ON INITIATION OF THE ENGINEERED SAFETY FEATURE ACTUATION SIGNAL (ESFAS) GENERATED IN THE REACTOR PROTECTION SYSTEM. IMMEDIATE CORRECTIVE ACTIONS INCLUDED SUPERVISOR

DISCUSSIONS WITH THE LICENSED OPERATORS ON THE INITIATING CONDITIONS AND PLANT PARAMETERS AND UNDERSTANDING THE SIGNIFICANCE OF THEIR ACTIONS. SIMILAR OCCURRENCES: NONE.

[248] TURKEY POINT 4 DOCKET 50-251 LER 84-010
 REACTOR TRIPS FOLLOWING LOSS OF FEEDWATER PUMP SUCTION.
 EVENT DATE: 060484 REPORT DATE: 070584 NSSS: WE TYPE: PWR

(NSIC 190594) ON JUN 2, 1984, WITH UNIT 4 AT 100% POWER, THE 4A STEAM GENERATOR FEEDWATER PUMP TRIPPED DUE TO LOW SUCTION PRESSURE. THIS OCCURRED WHILE CLOSING THE LOW PRESSURE HEATER BYPASS VALVE. THIS CAUSED A 30% TURBINE RUNBACK ON THE UNIT. SUBSEQUENTLY, THE REACTOR TRIPPED. THE CAUSE OF THE UNIT TRIP WAS NOT IMMEDIATELY APPARENT SO A REVIEW OF THE EVENTS WAS INITIATED. THE DIGITAL DATA PROCESS SYSTEM (DDPS) PRINTOUT INDICATED THAT THE TRIP WAS INITIATED BY OPENING OF THE 'A' REACTOR TRIP BREAKER. THIS IN TURN TRIPPED THE TURBINE WHICH DE-ENERGIZED REACTOR TRIP RELAYS 9 AND 10 AND OPENED THE 'B' REACTOR TRIP BREAKER. NO APPARENT CAUSE FOR OPENING OF THE 'A' REACTOR TRIP BREAKER COULD BE IDENTIFIED. FIRST OUT ANNUNCIATORS INDICATED THAT THE TRIP WAS CAUSED BY STEAM FLOW GREATER THAN FEED FLOW COINCIDENT WITH LOW STEAM GENERATOR LEVEL ON 'C' STEAM GENERATOR, YET THE DDPS PRINTOUT HAD NO INDICATION OF ANY STEAM GENERATOR REACTOR TRIP MATRIX BEING MADE UP. ADDITIONAL DETAILS ARE DESCRIBED IN THE TEXT PORTION OF THIS REPORT. SIMILAR OCCURRENCES: NONE. SIGNIFICANT EVENT NOTIFICATION MADE TO NRCOC VIA ENS PURSUANT TO 10 CFR 50.72(B)(2)(II).

[249] TURKEY POINT 4 DOCKET 50-251 LER 84-011
 ELECTRICAL TRANSIENT CAUSES TURBINE RUNBACK.
 EVENT DATE: 061084 REPORT DATE: 071084 NSSS: WE TYPE: PWR

(NSIC 190542) ON JUNE 10, 1984, AT 12:18 A.M., A TURBINE RUNBACK TO APPROXIMATELY 510 MEGAWATTS OCCURRED. THE ROOT CAUSE WAS DETERMINED TO STEM FROM AN ELECTRICAL TRANSIENT IN THE "NORMAL" (4A) STATIC INVERTER (4Y01) THAT WAS IN SERVICE SUPPLYING POWER TO A VITAL 120 VOLT (A.C.) INSTRUMENT POWER BUS (PANEL 4P07). THIS RESULTED IN A MOMENTARY LOSS OF POWER TO VITAL PANEL 4P07 AND ITS FEEDS TO THE NUCLEAR INSTRUMENTATION SYSTEM (NIS) CHANNEL N-42 POWER RANGE NUCLEAR INSTRUMENTATION. A MOMENTARY LOSS OF NIS CHANNEL N-42 DETECTOR VOLTAGE RESULTED AND INITIATED AN "NIS ROD DROP" SIGNAL WHICH GENERATED THE TURBINE RUNBACK. IMMEDIATE CORRECTIVE ACTIONS INCLUDED STABILIZING THE UNIT, SWAPPING THE VITAL PANEL ONTO THE "STANDBY" (AS) STATIC INVERTER (3Y04) AND COMPLETION OF SATISFACTORY LOGIC CIRCUIT TESTING AND LOAD TESTING OF THE 4A INVERTER WITH A RESISTIVE LOAD OF 53 AMPS PERFORMED WITH LINE DISTURBANCE MONITORING EQUIPMENT WHICH DID NOT RECORD ANY ABNORMAL FLUCTUATIONS. THE 4A INVERTER WAS RETURNED TO SERVICE AND LICENSED OPERATORS WERE REQUESTED TO MAINTAIN AN AWARENESS OF THE INVERTERS STATUS. SIMILAR OCCURRENCES: LER 250-84-009, LER 250-84-013, AND LER 250-84-015.

[250] TURKEY POINT 4 DOCKET 50-251 LER 84-012
 TECH SPEC EXCEEDED ON MODERATOR TEMPERATURE COEFFICIENT.
 EVENT DATE: 061184 REPORT DATE: 071084 NSSS: WE TYPE: PWR

(NSIC 190649) ON JUNE 11, 1984, THE MODERATOR TEMPERATURE COEFFICIENT (MTC) TECH SPEC WAS EXCEEDED. THE ROOT CAUSE WAS DETERMINED TO STEM FROM INADEQUATE PROCEDURAL GUIDANCE TO TAKE INTO ACCOUNT CHANGES IN PARAMETERS AFFECTING FULFILLMENT OF THE TECH SPEC REQUIREMENT. IMMEDIATE CORRECTIVE ACTIONS TAKEN INCLUDED THE FOLLOWING: 1) A REDUCTION IN REACTOR POWER TO A LEVEL SATISFYING THE TECH SPEC REQUIREMENT, 2) SUPERVISOR DISCUSSION WITH THE OPERATORS ON INITIATING CONDITIONS AND SIGNIFICANCE OF THE EVENT, 3) INCREASED COORDINATION BETWEEN OPERATIONS AND REACTOR ENGINEERING ON DETERMINATION OF XENON AND BORON CONCENTRATIONS AND CONDITIONS REQUIRED FOR POWER ASCENSION TO 70% AND ABOVE

WITHOUT EXCEEDING TECH SPEC, 4) VERIFICATION BY REACTOR ENGINEERING THAT CONDITIONS ON THE MTC CURVE ARE SATISFIED, AND 5) REQUEST FUEL VENDOR, WESTINGHOUSE, REVIEW MTC PARAMETERS TO SEE IF AVAILABLE MARGIN EXISTS TO INCREASE OPERATING FLEXIBILITY. LONG TERM CORRECTIVE ACTIONS IN PROGRESS INCLUDE INVESTIGATING POSSIBLE TECH SPEC CHANGES AND INVESTIGATING A CHANGE IN CORE DESIGN PHILOSOPHY TO ENSURE DESIGN PARAMETERS MEET TECH SPEC IN ALL OPERATING CONDITIONS AND A PROCEDURE CHANGE WAS MADE TO REQUIRE REACTOR ENGINEERING TO EVALUATE AND ESTABLISH THE PLANT CONDITIONS REQUIRED PRIOR TO POWER ASCENSION TO 70% AND ABOVE. SIMILAR OCCURRENCES: NONE.

[251] TURKEY POINT 4 DOCKET 50-251 LER 84-013
 AUXILIARY FEEDWATER INITIATION OCCURS.
 EVENT DATE: 062484 REPORT DATE: 072484 NSSS: WE TYPE: PWR

(KJIC 190595) ON JUN 24, 1984, AUTOMATIC INITIATION OF AUXILIARY FEEDWATER (AFW) OCCURRED. THE ROOT CAUSE WAS DETERMINED TO STEM FROM THE TRIP OF THE 4B SG FEEDWATER PUMP (SGFP) DUE TO INADEQUATE SUCTION PRESSURE. DURING ESCALATION TO FULL POWER OPERATION, THE 4A CONDENSATE PUMP WAS STARTED AND THE 4B SGFP THAT WAS IN SERVICE TRIPPED, INITIATING AN AUTOMATIC START OF THE AFW SYSTEM. THE OPERATORS ATTEMPTED TO START THE 4A SGFP, BUT IT DID NOT START DUE TO INADEQUATE SUCTION PRESSURE. AN ATTEMPT WAS MADE TO RESTART THE 4B SGFP WHICH WAS SUCCESSFUL. THE UNIT WAS STABILIZED AND AFW SECURED WITHIN 2 MINS AND RESET. POWER ESCALATION CONTINUED WITH NO FURTHER PROBLEMS. ALL EQUIPMENT FUNCTIONED AS DESIGNED ON INITIATION OF THE ENGINEERED SAFETY FEATURE ACTUATION SIGNAL (ESFAS). SUBSEQUENT INVESTIGATIONS FAILED TO REVEAL ANY EQUIPMENT FAILURE. SIMILAR OCCURRENCES: NONE.

[252] TURKEY POINT 4 DOCKET 50-251 LER 84-014
 FAILURE OF NEUTRON INSTRUMENT CAUSES A REACTOR TRIP.
 EVENT DATE: 062684 REPORT DATE: 072584 NSSS: WE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190650) ON JUNE 26, 1984, UNIT 4 EXPERIENCED A REACTOR TRIP WHILE AT HOT SHUTDOWN CONDITIONS. THE ROOT CAUSE WAS DUE TO A SOURCE RANGE DETECTOR, N-32, THAT FAILED HIGH ABOVE THE REACTOR TRIP LOGIC FOR A SOURCE RANGE HIGH NEUTRON FLUX LEVEL AT SHUTDOWN TRIP. THEREFORE, WHEN N-32 FAILED HIGH, THE REACTOR TRIP LOGIC WAS COMPLETED AND A REACTOR TRIP OCCURRED. ALL EQUIPMENT FUNCTIONED AS DESIGNED ON INITIATION OF THE ENGINEERED SAFETY FEATURE ACTUATION SIGNAL (ESFAS). IMMEDIATE CORRECTIVE ACTIONS INCLUDED: 1) I AND C SWITCHED THE FAILED DETECTOR FOR N-32 WITH THE SPARE DETECTOR FOR REFUELING, 2) N-32 WAS RECALIBRATED BY I AND C, AND 3) OPERATIONS PERFORMED A SOURCE RANGE PERIODIC FUNCTIONAL TEST ON BOTH SOURCE RANGE DETECTORS N-32 AND N-31. SUBSEQUENTLY, ON JULY 16, 1984, THE FAILED DETECTOR WAS REPLACED AND THE SYSTEM RETURNED TO NORMAL CONFIGURATION. SIMILAR OCCURRENCES: NONE.

[253] VERMONT YANKEE DOCKET 50-271 LER 84-007
 HIGH RADIATION LEVEL IN REACTOR BUILDING.
 EVENT DATE: 061584 REPORT DATE: 071284 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190654) AT 0905 ON 6/15/84, A HIGH AREA RADIATION ALARM WAS RECEIVED FROM THE AREA OF THE TRAVERSING IN-CORE PROBE (TIP) DRIVE MACHINES. AFTER VERIFYING THE RADIATION LEVELS IN THE AREA AN ALERT WAS DECLARED AT 0920. CAUSE OF THE HIGH RADIATION LEVELS WAS DETERMINED TO BE DUE TO THE INADVERTENT WITHDRAWAL OF THE 'A' TIP DETECTOR INTO THE DRIVE HOUSING. THE AREA WAS REDESIGNATED AS A HIGH RADIATION AREA AND APPROPRIATE BARRIERS WERE INSTALLED TO RESTRICT ACCESS TO THE AREA UNTIL THE RADIATION DECREASED TO A LEVEL WHERE THE DETECTOR COULD BE DISPOSED OF. THE ALERT WAS TERMINATED AT 1320 ON 6/15/84.

[254] VERMONT YANKEE DOCKET 50-271 LER 84-011
 1984 TYPE C TESTING FINDS SEAL LEAKAGE.
 EVENT DATE: 061684 REPORT DATE: 071684 NSSS: GE TYPE: BWR
 VENDOR: ALLIS CHALMERS
 ANCHOR/DARLING VALVE CO.

(NSIC 190709) WHILE PERFORMING TYPE C LEAK RATE TESTING MSIV-868, CRD-412A, PCAC V16-19-8 AND FDW-96A WERE FOUND TO HAVE SEAT LEAKAGE IN EXCESS OF THAT PERMITTED BY TECH SPEC SECTION 3.7.A.4. VERMONT YANKEE WILL PERFORM MAINTENANCE ON ALL OF THE ABOVE VALVES AND RETEST THEM TO INSURE THAT SEAT LEAKAGE IS WITHIN TECH SPEC ALLOWABLES PRIOR TO PLANT STARTUP FOLLOWING THE 1984 REFUELING OUTAGE.

[255] VERMONT YANKEE DOCKET 50-271 LER 84-008
 ENVIRONMENTAL SAMPLING STATION INOPERABLE.
 EVENT DATE: 061784 REPORT DATE: 071284 NSSS: GE TYPE: BWR

(NSIC 190707) FOR THE PERIOD 6/12/84 TO 6/17/84 WEEKLY AIR PARTICULATE AND CHARCOAL CARTRIDGE SAMPLING WAS NOT PERFORMED AS REQUIRED BY TECH SPEC SECTION 4.9.D.2 AND TABLE 3.9.1. THE AIR SAMPLING STATION IN NORTH HINSDALE WAS LEFT OFF BY A TECHNICIAN PERFORMING REQUIRED ENVIRONMENTAL RADIATION SURVEILLANCE. IN ORDER TO REDUCE THE CHANCE OF A SIMILAR EVENT, PLANT PROCEDURES HAVE BEEN REVISED TO REQUIRE THAT THE TECHNICIAN INITIALS THE SAMPLE ENVELOP UPON INSURING THE SYSTEM IS OPERABLE AFTER SAMPLE DATA IS COLLECTED. ALL TECHNICIANS INVOLVED IN THE USE OF THE REVISED PROCEDURE WILL BE NOTIFIED OF THE CHANGES TO THE PROCEDURE AND INSTRUCTED ON THE PROPER PERFORMANCE ON ALL NEW REQUIREMENTS.

[256] VERMONT YANKEE DOCKET 50-271 LER 84-009
 REACTOR SCRAM DUE TO PERSONNEL ERROR DURING SURVEILLANCE TESTING.
 EVENT DATE: 061784 REPORT DATE: 071784 NSSS: GE TYPE: BWR

(NSIC 190655) ON 6/17/84 WHILE PERFORMING CONTROL ROD DRIVE FRICTION TESTING, WITH THE REACTOR SHUTDOWN, A SCRAM OCCURRED DUE TO A VALVING ERROR ON A REACTOR LEVEL INSTRUMENT BEING CALIBRATED. AFTER VERIFYING THE CAUSE OF THE SCRAM THE SCRAM WAS RESET AND FRICTION TESTING RECOMMENCED.

[257] VERMONT YANKEE DOCKET 50-271 LER 84-010
 INOPERABLE STACK RADIATION MONITORS.
 EVENT DATE: 061784 REPORT DATE: 071684 NSSS: GE TYPE: BWR
 VENDOR: VICTOREEN INSTRUMENT DIVISION

(NSIC 190708) WHILE VENTING THE MAIN CONDENSER WITH THE REACTOR SHUT DOWN, IT WAS OBSERVED THAT THE STACK GAS RADIATION MONITORS WERE NOT PROPERLY RESPONDING. A GRAB SAMPLE WAS OBTAINED FROM THE STACK AND ANALYZED TO DETERMINE THE RELEASE RATE. THE RESULTS OF THIS ANALYSIS WERE COMPARED WITH THE INDICATIONS OF THE RADIATION MONITORS. TROUBLESHOOTING REVEALED THAT STACK GAS II RADIATION MONITOR HAD THE WRONG DETECTOR INSTALLED AND STACK GAS I RADIATION MONITOR HAD A FAULTY CIRCUIT CARD CAUSING THE INSTRUMENT TO DRIFT APPROX 1/2 DECADE. GRAB SAMPLES WERE OBTAINED PERIODICALLY THROUGHOUT THE ENTIRE VENTING PERIOD TO INSURE THE RELEASE RATE REMAINED BELOW THE ALLOWABLE LIMITS.

[258] WPPSS 2 DOCKET 50-397 LER 84-008 REV 1
 UPDATE ON SUPPRESSION POOL LEVEL OUTSIDE TECH SPEC LIMITS.
 EVENT DATE: 012884 REPORT DATE: 071984 NSSS: GE TYPE: BWR

(NSIC 190810) REV 0 TO LER 008, ISSUED ON FEB 24, 1984, REPORTED A FAILURE OF A SUPPRESSION POOL LEVEL INDICATOR (CMS-LR/PR-4) AND THE SUBSEQUENT DETERMINATION THAT SUPPRESSION POOL LEVEL WAS BELOW THE TECH SPEC LIMITS. THE PURPOSE OF THIS

SUPPLEMENTAL REPORT IS TO ADDRESS THE LOSS OF WATER IN THE SUPPRESSION POOL DURING THE EVENT DUE TO AN INADEQUATE VALVE LINEUP. AS PREVIOUSLY REPORTED, TECH SPECS 4.5.3.1 REQUIRES THE SUPPRESSION POOL LEVEL TO BE MAINTAINED AT A MINIMUM OF 30 FT 9 3/4 INCHES. ACTUAL LEVEL WAS DETERMINED TO BE APPROX 30 FEET 5 INCHES AND WAS VERBALLY REPORTED TO THE NRC PURSUANT TO 10CFR50.72(2)(III)(D). (IT SHOULD BE NOTED THAT THE ORIGINAL REPORT INCORRECTLY STATED THAT THE PLANT WAS IN MODE 5 AT THE TIME OF THE EVENT. THE REACTOR VESSEL HEAD WAS TENSIONED ON JAN 26, 1984, TWO DAYS PRECEDING THE EVENT, AND THE MODE SWITCH WAS TRANSFERRED FROM REFUELING TO SHUTDOWN.)

[259] WPPSS 2 DOCKET 50-397 LER 84-027 REV 1
 UPDATE ON GROUNDS IN MSRV SOLENOIDS.
 EVENT DATE: 032284 REPORT DATE: 071984 NSSS: GE TYPE: BWR
 VENDOR: CORSBY VALVE & GAGE CO.

(NSIC 190811) REV 0 OF LER 027 REPORTED FAILURES OF MAIN STEAM RELIEF VALVE SOLENOIDS DUE TO GROUNDING IN THE SOLENOID COILS. AS REPORTED, ALL INSTALLED MSRV SOLENOIDS (BOTH THE 18 MSRV AND 14 ADS SOLENOIDS) HAD VOLTAGE SPIKE SUPPRESSION DIODES INSTALLED ACROSS EACH SOLENOID CIRCUIT. IN ADDITION, EACH SOLENOID WAS MEGGER TESTED FOR INTERNAL GROUNDING AND COIL RESISTANCE WAS MEASURED. EACH ADS SOLENOID WAS THEN CYCLED TEN TIMES AND A FINAL GROUND CHECK WAS PERFORMED. GE IS CONDUCTING A REVIEW OF THESE FAILURES AND SIMILAR EVENTS WHICH OCCURRED AT LASALLE AND SUSQUEHANNA AND HAS ISSUED AN INTERIM REPORT (MPN #081-84, 6/15/84) TO THE NRC. ACCORDING TO THE REPORT, GE HAS NOT COMPLETED ITS EVALUATION AS TO REPORTABILITY UNDER 10CFR21 BUT DOES CONSIDER THE CONDITION TO BE GERMANE TO SAFETY. GE HAS PROVIDED JUSTIFICATION FOR CONTINUED PLANT OPERATION IN THE REPORT. THIS JUSTIFICATION IS BASED ON THE INHERENT CONSERVATISM IN THE ADS SYSTEM DESIGN BASED ON TOTAL BLOWDOWN CAPACITY AND THE USE OF REDUNDANT SOLENOIDS ON EACH ADS VALVE. FURTHER CORRECTIVE ACTION: 1) A REPORT OF THE RESOLUTION OF THIS CONDITION WILL BE PROVIDED UPON COMPLETION OF THE GE INVESTIGATION. 2) OPERATIONS WILL CONTINUE TO MONITOR EXISTING GROUND FAULT INDICATING ANNUNCIATORS TO IDENTIFY POTENTIAL FAILURES OF SOLENOIDS.

[260] WPPSS 2 DOCKET 50-397 LER 84-026 REV 1
 UPDATE ON ACTIVATION OF PRE-ACTION AND DELUGE SYSTEMS CAUSE SGTS TRAIN TO BE DECLARED INOPERABLE.
 EVENT DATE: 041984 REPORT DATE: 051884 NSSS: GE TYPE: BWR

(NSIC 190751) THE FIRST ACTIVATION OF THE PRE-ACTION AND DELUGE SYSTEMS OCCURRED ON 3-21-84 AND WAS REPORTED AS A LICENSEE EVENT REPORT BECAUSE WATER WAS FOUND IN THE STANDBY GAS TREATMENT SYSTEM (SGTS) TRAIN B. THE WATER ENTERED THE SGTS VIA THE DELUGE SYSTEM, MOMENTARILY LIFTED THE DELUGE VALVE OFF ITS SEAT AND ALLOWED WATER TO LEAK AND RUN OUT THE NOZZLES ONTO THE FLOOR ADJACENT TO THE SGTS CHARCOAL BED. ON 4-19-84 AND 4-27-84 WATER WAS FOUND IN THE B TRAIN OF THE SGTS AGAIN. THE A TRAIN OF THE SGTS WAS INSPECTED TO INSURE NO WATER WAS PRESENT AND A B TRAIN TEST CANISTER PULLED. AFTER EACH OF THE EVENTS B TRAIN OF THE SGTS WAS CONSIDERED INOPERABLE UNTIL THE TEST CANISTER ANALYSIS WAS COMPLETE INDICATING NO CHARCOAL DAMAGE. A DESIGN CHANGE IS IN PROGRESS TO PREVENT FUTURE OCCURRENCES.

[261] WPPSS 2 DOCKET 50-397 LER 84-045
 REACTOR AUTOMATIC TRIP DUE TO HIGH PRESSURE.
 EVENT DATE: 051884 REPORT DATE: 061484 NSSS: GE TYPE: BWR

(NSIC 190567) A REACTOR HIGH PRESSURE TRIP OCCURRED AS A RESULT OF MAIN STEAM BYPASS VALVE CLOSURE DUE TO LOW HYDRAULIC FLUID (DEH) PRESSURE, WHICH RESULTED WHEN THE MAIN TURBINE WAS MANUALLY TRIPPED. IMMEDIATE CORRECTIVE ACTION WAS TO REOPEN THE MAIN STEAM BYPASS VALVES TO REDUCE REACTOR PRESSURE AND CONTROL COOLDOWN RATE. THE TURBINE AUTO STOP RELIEF VALVES WERE REWORKED AND THE AUTO

START SETPOINT FOR THE STANDBY DEH PUMP WAS ADJUSTED TO START AT A HIGHER RESERVOIR LEVEL TO INSURE AN ADEQUATE SUPPLY OF DEH FLUID AND THEREFORE SUFFICIENT PRESSURE TO MAINTAIN BYPASS VALVE OPERATION UNDER TRANSIENT CONDITIONS.

[262] WPPSS 2 DOCKET 50-397 LER 84-043
 REACTOR TRIP DUE TO OPERATOR ERROR DURING SURVEILLANCE TESTS.
 EVENT DATE: 051984 REPORT DATE: 061484 NSSS: GE TYPE: BWR

(NSIC 190566) DURING OPERATION AT 17% POWER NORMAL SURVEILLANCE TEST OF PRIMARY CONTAINMENT PRESSURE MONITORS 'A' AND 'C' WAS BEING PERFORMED. UPON PRESSURIZATION OF MONITOR 'A' THE ISOLATION SIGNAL AND LOAD SHEDDING LOGIC WAS INITIATED. THIS RESULTED IN LOSS OF CONTROL POWER TO THE REACTOR FEEDWATER LEVEL CONTROL SYSTEM. THIS CAUSED THE OPERATING REACTOR FEEDPUMP TURBINE TO RUN TO MINIMUM SPEED. THE SUBSEQUENT DECREASE IN REACTOR LEVEL CAUSED A REACTOR PROTECTION SYSTEM (RPS) TRIP. AFTER INVESTIGATION IT WAS FOUND THAT THE HALF ISOLATION SIGNAL RECEIVED FROM THE PREVIOUSLY COMPLETED SURVEILLANCE TEST OF PRIMARY CONTAINMENT PRESSURE MONITORS 'B' AND 'D' HAD NOT BEEN RESET. THE PROCEDURES HAVE BEEN REVISED TO INCLUDE THE RESET OF THE ISOLATION SIGNAL AFTER THE TESTING OF EACH MONITOR.

[263] WPPSS 2 DOCKET 50-397 LER 84-050
 UNSCHEDULED TRIP OF A CONTROL ROOM EMERGENCY FILTRATION UNIT.
 EVENT DATE: 052684 REPORT DATE: 062284 NSSS: GE TYPE: BWR
 VENDOR: KAMAN SCIENCES CORP.

(NSIC 190568) A CONTROL ROOM EMERGENCY FILTRATION UNIT (AN ESF SYSTEM) WAS AUTOMATICALLY ACTUATED DUE TO A SPIKE ON THE CORRESPONDING CONTROL ROOM OUTSIDE AIR RADIATION MONITORS. AFTER VERIFYING THAT RADIATION LEVELS WERE NOT ABOVE NORMAL BACKGROUND, THE RADIATION MONITORS AND EMERGENCY FILTRATION UNITS WERE RESET AND RETURNED TO NORMAL OPERATION. SUBSEQUENT INVESTIGATION DETERMINED THE CAUSE OF THE SPIKE TO HAVE BEEN TRIPPING OF THE REACTOR CORE ISOLATION COOLING TURBINE.

[264] WPPSS 2 DOCKET 50-397 LER 84-051
 LEVEL 3 REACTOR SCRAM.
 EVENT DATE: 052884 REPORT DATE: 062284 NSSS: GE TYPE: EWR
 VENDOR: FOXBORO CO., THE

(NSIC 190569) ON 5-28-84 A REACTOR SCRAM ON LEVEL 3 (LOW LEVEL) OCCURRED AT 1055 HRS (REPORTED BY TELECON TO NRC 1253 HRS 5-28-84). THIS SCRAM WAS THE RESULT OF AN OPERATOR ERROR WHILE ATTEMPTING TO PUT THE CONDENSATE FILTER DEMINERALIZERS IN 'AUTO' UTILIZING PROCEDURE 2.2.5 'MAIN CONDENSATE FILTER DEMINERALIZER SYSTEM.' CONDENSATE F/D ISOLATION RESULTED IN LOSS OF MAIN FEED BOOSTER PUMP PRESSURE, AND SUBSEQUENT LOSS OF MAIN FEED PUMPS AND LOSS OF LEVEL IN THE REACTOR.

[265] WPPSS 2 DOCKET 50-397 LER 84-052
 UNSCHEDULED INITIATION OF A CONTROL ROOM EMERGENCY FILTRATION UNIT.
 EVENT DATE: 052884 REPORT DATE: 062284 NSSS: GE TYPE: BWR
 VENDOR: KAMAN SCIENCES CORP.

(NSIC 190570) A CONTROL ROOM EMERGENCY FILTRATION UNIT (AN ESF SYSTEM) WAS AUTOMATICALLY ACTUATED DUE TO A SPIKE ON THE CORRESPONDING CONTROL ROOM OUTSIDE AIR RADIATION MONITORS. AFTER VERIFYING THAT RADIATION LEVELS WERE NOT ABOVE NORMAL BACKGROUND, THE RADIATION MONITORS AND EMERGENCY FILTRATION UNITS WERE RESET AND RETURNED TO NORMAL OPERATION. SUBSEQUENT INVESTIGATION DETERMINED THE CAUSE OF THE SPIKE TO HAVE BEEN THE CLOSURE OF A REACTOR CORE ISOLATION COOLING VALVE (EPN: RCIC-V-13).

[266] WPPSS 2 DOCKET 50-397 LER 84-053
 SPURIOUS INITIATION OF CONTROL ROOM EMERGENCY FILTRATION UNIT.
 EVENT DATE: 052884 REPORT DATE: 062284 NSSS: GE TYPE: BWR
 VENDOR: KAMAN SCIENCES CORP.

(NSIC 190571) A CONTROL ROOM EMERGENCY FILTRATION UNIT (AN ESP SYSTEM) WAS AUTOMATICALLY ACTUATED DUE TO A SPIKE ON THE CORRESPONDING CONTROL ROOM OUTSIDE AIR RADIATION MONITORS. AFTER VERIFYING THAT RADIATION LEVELS WERE NOT ABOVE NORMAL BACKGROUND, THE RADIATION MONITORS AND EMERGENCY FILTRATION UNITS WERE RESET AND RETURNED TO NORMAL OPERATION. SUBSEQUENT INVESTIGATION DETERMINED THE CAUSE OF THE SPIKE TO HAVE BEEN THE CLOSURE OF A REACTOR CORE ISOLATION COOLING VALVE (EPN: RCIC-V-8).

[267] WPPSS 2 DOCKET 50-397 LER 84-054
 RPS ACTUATION ON TURBINE OVERSPEED TESTING.
 EVENT DATE: 052984 REPORT DATE: 062584 NSSS: GE TYPE: BWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190572) WITH THE REACTOR OPERATING AT 20% POWER A REACTOR PROTECTION SYSTEM (RPS) ACTUATION ON TURBINE GOVERNOR VALVE FAST CLOSURE OCCURRED AS A RESULT OF OVERSPEED TESTING OF THE MAIN TURBINE OVERSPEED PROTECTION CONTROL (OPC) SYSTEM. GOVERNOR VALVE FAST CLOSURE WAS AN EXPECTED OUTCOME OF OPC TESTING. HOWEVER, THE RPS ACTUATION WAS NOT ANTICIPATED BECAUSE REACTOR STEAM FLOW AS MEASURED BY TURBINE 1ST STAGE INLET PRESSURE WAS WITHIN THE RANGE IN WHICH THE REACTOR TRIP IS BYPASSED. INCORRECT OPC TEST TECHNIQUES CAUSED THE TURBINE GOVERNOR AND INTERCEPT VALVES TO TRIP CLOSED, RE-OPEN AND RETRIP APPROX 6 TIMES IN 30 SECONDS. THIS RAPID CLOSE-OPEN-CLOSE SEQUENCE CAUSED TURBINE FIRST STAGE PRESSURE TO MOMENTARILY EXCEED THE 30% THERMAL POWER EQUIVALENT BYPASS RESET SETPOINT OF THE REACTOR PROTECTION SYSTEM PRESSURE SWITCHES MS-PS-3A,B,C,D. THIS PRODUCED A TURBINE GOVERNOR VALVE FAST CLOSURE REACTOR PROTECTION TRIP WHICH WAS NOT AUTO-BYPASSED EVEN THOUGH ACTUAL REACTOR POWER WAS 20%.

[268] WPPSS 2 DOCKET 50-397 LER 84-057
 AUTO START OF THE CONTROL ROOM EMERGENCY FILTRATION SYSTEM ON HI CHLORINE.
 EVENT DATE: 060584 REPORT DATE: 062884 NSSS: GE TYPE: BWR

(NSIC 190515) A FALSE HIGH CHLORINE SIGNAL FROM THE VENTILATION CHLORINE DETECTOR, ON SAMPLE RACK WOA-SR-15, STARTED THE CONTROL ROOM EMERGENCY FILTRATION SYSTEM. THE FALSE CHLORINE SIGNAL WAS A RESULT OF DEPLETION OF CHLORINE SENSITIVE PAPER TAPE WHICH DISCOLORS ON CONTACT WITH CHLORINE OR EXTENDED EXPOSURE TO MOISTURE.

[269] WPPSS 2 DOCKET 50-397 LER 84-058
 INADVERTENT INITIATION OF CONTROL ROOM EMERGENCY FILTRATION UNIT.
 EVENT DATE: 060784 REPORT DATE: 062884 NSSS: GE TYPE: BWR
 VENDOR: KAMAN SCIENCES CORP.

(NSIC 190516) THE CONTROL ROOM EMERGENCY FILTRATION UNIT (AN EPS SYSTEM) WAS INADVERTENTLY INITIATED DUE TO A TECHNICIAN PERFORMING MAINTENANCE ON THE ASSOCIATED RADIATION MONITORING SAMPLE RACK. AFTER VERIFYING THAT RADIATION LEVELS WERE NOT ABOVE NORMAL BACKGROUND, THE RADIATION MONITOR AND EMERGENCY FILTRATION UNIT WERE RESET AND RETURNED TO A NORMAL LINEUP.

[270] WPPSS 2 DOCKET 50-397 LER 84-060
 REACTOR TRIP DUE TO REACTOR LOW WATER LEVEL.
 EVENT DATE: 061384 REPORT DATE: 070684 NSSS: GE TYPE: BWR

(NSIC 190633) A LOW REACTOR WATER LEVEL REACTOR PROTECTION SYSTEM (RPS) TRIP OCCURRED AS A RESULT OF LOSS OF FEEDWATER SUPPLY CAPABILITY. THE OPERATING REACTOR FEEDPUMP TRIPPED ON LOW SUCTION PRESSURE WHEN A CONDENSATE BOOSTER PUMP SUPPLYING THE FEEDPUMP TRIPPED. THE BOOSTER PUMP TRIP WAS CAUSED BY A FAILURE OF THE CONDENSATE LONG-CYCLE CLEAN-UP VALVE TO THE FULL OPEN POSITION WHICH RAPIDLY INCREASED SYSTEM FLOW BEYOND THE OPERATING FILTER DEMINERALIZER CAPACITY AND THUS REDUCED BOOSTER PUMP SUCTION PRESSURE TO ITS TRIP SETPOINT.

[271] WPPSS 2 DOCKET 50-397 LER 84-061
BREACH OF FIRE BARRIER.
EVENT DATE: 061484 REPORT DATE: 070684 NSSS: GE TYPE: BWR
VENDOR: BURNS & ROE, INC.

(NSIC 190634) FLOOR DRAIN IN ROOM P-410 ON 522' LEVEL OF THE REACTOR BLDG IS OPEN TO THE 501' LEVEL. THIS CONDITION VIOLATED THE FIRE BARRIER SEPARATING THE ROOM FROM OTHER FIRE ZONES IN THE REACTOR BLDG. TECH SPEC 3.7.7, FIRE RATED ASSEMBLIES, REQUIRES AN HOURLY FIRE WATCH TO BE IMPLEMENTED AS COMPENSATORY ACTION. UPON DISCOVERY OF THE BREACH OF THE FIRE BARRIER THE REQUIRED FIRE PATROL WAS ESTABLISHED.

[272] WPPSS 2 DOCKET 50-397 LER 84-063
UNSCHEDULED INITIATION OF CR EMERGENCY FILTRATION UNITS.
EVENT DATE: 061784 REPORT DATE: 071284 NSSS: GE TYPE: BWR
VENDOR: KAMAN SCIENCES CORP.

(NSIC 190753) A CONTROL ROOM EMERGENCY FILTRATION UNIT (AN ESF SYSTEM) WAS AUTOMATICALLY ACTUATED DUE TO A SPIKE ON A CORRESPONDING CONTROL ROOM OUTSIDE AIR RADIATION MONITOR. AFTER VERIFYING THAT RADIATION LEVELS WERE NOT ABOVE NORMAL BACKGROUND, THE RADIATION MONITOR AND EMERGENCY FILTRATION UNIT WERE RESET AND RETURNED TO NORMAL OPERATION. SUBSEQUENT INVESTIGATION DETERMINED THE CAUSE OF THE SPIKE TO HAVE BEEN THE STARTING OF A SERVICE WATER PUMP (EPN: SW-P-1B). THIS EVENT WAS VERBALLY REPORTED TO THE NRC AT 0550 HOURS ON 6/17/84 IN ACCORDANCE WITH 10CFR50.72(B)(2)(II).

[273] WPPSS 2 DOCKET 50-397 LER 84-062
ROD SEQUENCE CONTROL SYSTEM TESTS NOT PERFORMED.
EVENT DATE: 062084 REPORT DATE: 071284 NSSS: GE TYPE: BWR

(NSIC 190752) ON 6/20/84 REACTOR POWER WAS REDUCED IN PREPARATION FOR MAIN TURBINE TRIP TESTING. TECH SPEC SURVEILLANCE REQUIREMENTS 4.1.4.2.A.2 AND 4.1.4.2.B.2 ON ROD SEQUENCE CONTROL SYSTEM WERE NOT PERFORMED IN THE REQUIRED TIME FRAME. IMMEDIATE CORRECTIVE ACTION TAKEN WAS TO PERFORM THE SURVEILLANCE TESTS WHEN IT WAS DISCOVERED THAT THEY WERE REQUIRED.

[274] WPPSS 2 DOCKET 50-397 LER 84-066
INADVERTENT INITIATION OF CR EMERGENCY FILTRATION UNIT.
EVENT DATE: 062084 REPORT DATE: 071284 NSSS: GE TYPE: BWR
VENDOR: KAMAN SCIENCES CORP.

(NSIC 190755) A CONTROL ROOM EMERGENCY FILTRATION UNIT (AN ESF SYSTEM) WAS INADVERTENTLY ACTUATED DUE TO A SPIKE ON THE CORRESPONDING RADIATION MONITOR. THE SPIKE WAS ASSOCIATED WITH CORRECTIVE MAINTENANCE BEING PERFORMED ON THE CONTROL ROOM OUTSIDE AIR CHLORINE ANALYZER. AFTER VERIFYING THAT RADIATION AND CHLORINE LEVELS WERE NOT ABOVE NORMAL BACKGROUND LEVELS, THE RADIATION MONITORS AND EMERGENCY FILTRATION UNITS WERE RESET AND RETURNED TO NORMAL LINEUP.

[275] WPPSS 2 DOCKET 50-397 LER 84-067
 UNSCHEDULED INITIATION OF CR EMERGENCY FILTRATION UNIT.
 EVENT DATE: 062084 REPORT DATE: 071284 NSSS: GE TYPE: BWR
 VENDOR: KAMAN SCIENCES CORP.

(NSIC 190756) CONTROL ROOM EMERGENCY FILTRATION UNITS (AN ESF SYSTEM) WERE AUTOMATICALLY ACTUATED DUE TO A SPIKE ON THE CORRESPONDING RADIATION MONITORING SYSTEM. THE SPIKE WAS ASSOCIATED WITH THE OPERATION OF A REACTOR CORE ISOLATION COOLING VALVE. AFTER VERIFYING THAT RADIATION LEVELS WERE NOT ABOVE BACKGROUND, THE RADIATION MONITORS AND EMERGENCY FILTRATION UNITS WERE RESET AND RETURNED TO A NORMAL LINEUP.

[276] WPPSS 2 DOCKET 50-397 LER 84-065
 SHUTDOWN COOLING SYSTEM FAILURE.
 EVENT DATE: 062384 REPORT DATE: 071284 NSSS: GE TYPE: BWR
 VENDOR: INGERSOL-RAND CO.

(NSIC 190754) DURING REACTOR COOLDOWN ON 6/23/84, THE RHR-B LOOP WAS PLACED IN THE SHUTDOWN COOLING MODE. FOLLOWING STARTING OF RHR-P-2B, PUMP MOTOR CURRENT WAS DETERMINED TO BE HIGH AND THE PUMP WAS SECURED AND ISOLATED. REACTOR COOLDOWN WAS CONTINUED UTILIZING THE A-TRAIN OF RHR. UPON INVESTIGATION, IT WAS DISCOVERED THAT THE PUMP MOTOR HALF COUPLING RETAINING NUT HAD LOOSENED CAUSING PUMP/MOTOR COUPLING SEPARATION. THIS CONDITION RESULTED IN PUMP IMPELLER/WEAR RING INTERFERENCE. REPAIRS TO THE PUMP WERE COMPLETED AND MODIFICATIONS MADE TO OTHER SIMILAR PUMPS TO PRECLUDE RECURRENCE OF THE EVENT.

[277] WPPSS 2 DOCKET 50-397 LER 84-068
 UNSCHEDULED INITIATION OF CR EMERGENCY FILTRATION UNITS.
 EVENT DATE: 062884 REPORT DATE: 071984 NSSS: GE TYPE: BWR
 VENDOR: KAMAN SCIENCES CORP.

(NSIC 190757) A CONTROL ROOM EMERGENCY FILTRATION UNIT (AN ESF SYSTEM) WAS AUTOMATICALLY ACTUATED DUE TO A SPIKE ON A CORRESPONDING CONTROL ROOM OUTSIDE AIR RADIATION MONITOR. AFTER VERIFYING THAT RADIATION LEVELS WERE NOT ABOVE NORMAL BACKGROUND, THE RADIATION MONITOR AND EMERGENCY FILTRATION UNIT WERE RESET AND RETURNED TO NORMAL OPERATION. SUBSEQUENT INVESTIGATION DETERMINED THE CAUSE OF THE SPIKE TO HAVE BEEN THE CLOSURE OF REACTOR CORE ISOLATION COOLING (RCIC) VALVE DURING TESTING. THIS EVENT WAS VERBALLY REPORTED TO THE NRC AT 0105 HRS ON 6/29/84 IN ACCORDANCE WITH 10CFR50.72(B)(2)(II).

[278] WPPSS 2 DOCKET 50-397 LER 84-069
 INADVERTENT INITIATION OF CR EMERGENCY FILTRATION UNIT.
 EVENT DATE: 062884 REPORT DATE: 071984 NSSS: GE TYPE: BWR
 VENDOR: KAMAN SCIENCES CORP.

(NSIC 190758) A CONTROL ROOM EMERGENCY FILTRATION UNIT (AN ESF SYSTEM) WAS AUTOMATICALLY ACTUATED DUE TO A SPIKE ON A CORRESPONDING CONTROL ROOM OUTSIDE AIR RADIATION MONITOR. AFTER VERIFYING THAT RADIATION LEVELS WERE NOT ABOVE NORMAL BACKGROUND, THE RADIATION MONITOR AND EMERGENCY FILTRATION UNIT WERE RESET AND RETURNED TO NORMAL OPERATION. SUBSEQUENT INVESTIGATION SHOWED THE SPIKE TO HAVE BEEN CAUSED BY MAINTENANCE ON UNDERVOLTAGE RELAYS IN THE PLANT'S 4.16 KV SWITCHGEAR (SM-8). THE EVENT WAS VERBALLY REPORTED TO THE NRC AT 1142 HRS ON 6/28/84 IN ACCORDANCE WITH 10CFR50.72(B)(2)(II).

[279] YANKEE ROWE DOCKET 50-029 LER 83-035 REV 1
 UPDATE ON STEAM GENERATOR BLOWDOWN RADIATION MONITOR FAILS.
 EVENT DATE: 100383 REPORT DATE: 070684 NSSS: WE TYPE: PWR
 VENDOR: NUCLEAR RESEARCH CORP.

(NSIC 190577) WHILE IN MODE 1, OPERATING AT FULL POWER, THE NUMBER 4 SG BLOWDOWN RADIATION MONITOR FAILED. THIS IS CONTRARY TO TECH SPECS TABLE 3.3-4. PREVIOUS FAILURE OF THIS NATURE WAS REPORTED IN LER 82-11. THE STEAM GENERATOR BLOWDOWN TANK RADIATION MONITOR WAS AVAILABLE AND OPERATIONAL, AND A TEMPORARY CONTINUOUS RADIATION MONITOR WAS INSTALLED DURING THIS TIME. THIS EVENT HAS BEEN ATTRIBUTED TO BUILDUP OF DIRT/TARNISH ON THE ELECTRICAL CONTACTS ON THE RATEMETER CARD, PB-3, AND ON THE HIGH VOLTAGE OPERATE AND TEST SWITCH, S-3. THE RATEMETER IS A MODEL AR2S, MADE BY NUCLEAR RESEARCH CORP. ALL CONTACTS WERE CLEANED AND POLISHED AND COMPONENTS RETURNED TO SERVICE.

[280] YANKEE ROWE DOCKET 50-029 LER 84-010
 CONTAINMENT LEAKAGE RATE EXCEEDS TECH SPEC LIMIT.
 EVENT DATE: 052484 REPORT DATE: 062284 NSSS: WE TYPE: PWR
 VENDOR: MASONEILAN INTERNATIONAL, INC.

(NSIC 190587) WHILE PERFORMING SURVEILLANCE TEST OP-4702, "VAPOR CONTAINMENT TYPE B & C PENETRATION TESTS," THE COMBINED LEAKAGE RATE FOR ALL PENETRATIONS AND VALVES SUBJECT TO TYPE B AND C TESTS WAS FOUND TO EXCEED THE TECH SPEC 3.6.1.2.B LIMIT. AT THE TIME OF THE DISCOVERY, THE PLANT WAS SHUTDOWN FOR A REFUELING OUTAGE WITH ALL OF THE FUEL REMOVED FROM THE VESSEL. THE FUEL CHUTE DEWATERING PUMP DISCHARGE CONTROL VALVE, CS-CV-216, WAS THE PRIMARY CONTRIBUTOR TO THE COMBINED LEAKAGE RATE. THE CAUSE OF THE OCCURRENCE HAS BEEN ATTRIBUTED TO INADEQUATE SEATING OF THE VALVE DISC. THE VALVE WAS LAPPED AND SATISFACTORILY RETESTED. NO FURTHER CORRECTIVE ACTION IS DEEMED NECESSARY.

[281] YANKEE ROWE DOCKET 50-029 LER 84-011
 PRESSURIZER CODE SAFETY VALVE SETPOINT TOLERANCE ERROR.
 EVENT DATE: 070384 REPORT DATE: 080284 NSSS: WE TYPE: PWR

(NSIC 190639) DURING A REVIEW OF DOCUMENTATION ACCOMPANYING THE RECENT REPLACEMENT OF THE TWO PRESSURIZER CODE SAFETY VALVES (SAFETY VALVE), THE LIFT SETPOINT OF SAFETY VALVE PR-SV-182 WAS DETERMINED TO EXCEED THE TECH SPEC TOLERANCE. THE SETPOINT TOLERANCE SPECIFIED IN THE PROCUREMENT DOCUMENT, IN ACCORDANCE WITH THE ASME BOILER AND PRESSURE VESSEL CODE (B&PV) SECTION III TOLERANCE (PLUS OR MINUS 1%), WAS NOT IN ACCORDANCE WITH THE TECH SPEC TOLERANCE (PLUS 0%, MINUS 3%). COMMUNICATION WITH THE COMMISSION DETERMINED THE CORRECTIVE ACTION OF THIS ERROR, A PROPOSED CHANGE TO THE TECH SPEC, IS ACCEPTABLE. EACH OF THE TWO SAFETY VALVES IS CAPABLE OF PROVIDING THE RELIEF CAPACITY NECESSARY TO PREVENT THE MAIN COOLANT SYSTEM PRESSURE EXCEEDING 2735 PSIG.

[282] YANKEE ROWE DOCKET 50-029 LER 84-012
 REACTOR SCRAM FOR UNKNOWN REASON.
 EVENT DATE: 071284 REPORT DATE: 081084 NSSS: WE TYPE: PWR

(NSIC 190702) DURING NORMAL OPERATION, WHILE IN MODE 1, AN AUTOMATIC REACTOR SCRAM FOLLOWED SEQUENTIALLY BY AN AUTOMATIC TURBINE TRIP, THE CROSS TIE OF THE CENTER BUS VIA THE 62GTX RELAY AND START OF NO. 2 EMERGENCY DIESEL GENERATOR OCCURRED. THE PLANT OPERATORS RESPONDED PROMPTLY AND CORRECTLY TO MITIGATE THE EFFECTS OF THE SCRAM. A THOROUGH REVIEW OF THE DATA ASSOCIATED WITH THE TRANSIENT INDICATES THAT ALL SYSTEMS AND PARAMETERS RESPONDED AS EXPECTED. THE CAUSE OF THIS OCCURRENCE IS INDETERMINABLE. NO FURTHER ACTIONS ARE DEEMED NECESSARY.

[283] ZION 1 DOCKET 50-295 LER 81-008 REV 1
 UPDATE ON BIT LINER LEAKS.
 EVENT DATE: 032581 REPORT DATE: 042484 NSSS: WE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190517) LEAK TEST DURING REFUELING OUTAGE FOUND BORATED WATER LEAKAGE FROM LINER TEST HOLES ON BIT MANWAY AND NOZZLES. TO EVALUATE DAMAGE TO FERRITIC BASE METAL, VESSEL WAS REPLACED. ON MAR 26, 1981 IT WAS DETERMINED INTEGRITY OF VESSEL WAS NOT AFFECTED BUT CONTINUED DEGRADATION OF ORIGINAL VESSEL COULD HAVE LED TO OPERATION IN A MANNER LESS CONSERVATIVE THAN THE FSAR AND THUS REPORTABLE UNDER TECH SPEC 6.6.2.A.9. LEAKAGE WAS CAUSED BY BREACHES IN THE TYPE 304L STAINLESS LINER. SOME LOCAL CORROSION OF FERRITIC BASE METAL DID NOT IMPAIR INTEGRITY OF VESSEL. DETAILED METALLURGICAL INVESTIGATION IS STILL BEING CONDUCTED. FINAL REPORT WILL BE SUBMITTED UPON COMPLETION. THE BIT WAS REPLACED. NO LEAKS OBSERVED ON UNIT 2 BIT.

[284] ZION 1 DOCKET 50-295 LER 84-015
 AIRCRAFT FIRE DETECTION SYSTEM TEST PERFORMED LATE.
 EVENT DATE: 050284 REPORT DATE: 071284 NSSS: WE TYPE: PWR

(NSIC 190606) PT-210 'SEMI ANNUAL TESTING OF THE AIRCRAFT CRASH FIRE DETECTION SYSTEM' WAS COMPLETED ON MAR 17, 1983. THE NEXT SCHEDULED SURVEILLANCE WAS SIX MONTHS LATER ON SEPT 17, 1983. DUE TO AN ADMINISTRATIVE OVERSIGHT THE PT WAS NOT COMPLETED UNTIL FEB 21, 1984. EXCLUDING THE GRACE PERIOD THE PT WAS OVERDUE BY FOUR MONTHS.

[285] ZION 1 DOCKET 50-295 LER 84-016
 CONTAINMENT LEAKAGE CONTROL ELECTRICAL PENETRATION PRESSURE LOW.
 EVENT DATE: 061784 REPORT DATE: 071684 NSSS: WE TYPE: PWR
 VENDOR: CONSOLIDATED SAFETY RELIEF VALVES

(NSIC 190665) U-1 ZONE 1 ELECTRICAL PENETRATION PRESSURE WAS FOUND BELOW TECH SPEC LIMIT OF 47 PSIG DUE TO RELIEF VALVE (INT-0042) BEING OFF ITS CLOSED SEAT. THE RELIEF VALVE COULD NOT BE RESEATED. THE ZONE WAS DECLARED INOPERABLE, PLACING THE UNIT IN A DEGRADED MODE PER TECH SPEC 3.9.2A. THE OTHER ZONES WERE OPERATING PROPERLY. THE RELIEF VALVE WAS REMOVED FROM THE SYSTEM, REPAIRED, THEN REINSTALLED IN THE SYSTEM. ZONE 1 WAS THEN RETURNED TO SERVICE.

[286] ZION 1 DOCKET 50-295 LER 84-018
 BLOWER FOR RADIATION MONITOR FOUND OFF WHILE 1B GAS DECAY TANK RELEASE IN PROGRESS.
 EVENT DATE: 062184 REPORT DATE: 071984 NSSS: WE TYPE: PWR

(NSIC 190607) DURING NORMAL OPERATION AND NIGHTLY RADIATION MONITOR SURVEILLANCE, THE RADIATION/CHEMISTRY DEPARTMENT FOUND THE BLOWER FOR 10PR038 (VENT STACK PARTICULATE AND IODINE SAMPLER) OFF, A VIOLATION OF TECH SPEC 3.12.1.C.1. THE BLOWER WAS TURNED ON AND VERIFIED OPERATIONAL. A RELEASE OF 1B GAS DECAY TANK WAS IN PROGRESS AT THE TIME OF THE INCIDENT. THE GAS DECAY TANK RELEASE PATH IS NOT SAMPLED BY 10PR038, NOR ARE ANY CONTROL FUNCTIONS ASSOCIATED WITH THE SAMPLER. VENT STACK RADIATION MONITORS 1RIA-PR49 AND ORE-0014 INDICATED NORMAL LEVELS OF RADIOACTIVITY. A MODIFICATION TO INSTALL A LOW FLOW ANNUNCIATOR IN THE CONTROL ROOM HAS BEEN INITIATED. IN THE INTERIM THE MONITORS WILL BE CHECKED SHIFTLY TO VERIFY OPERATION.

[287] ZION 1 DOCKET 50-295 LER 84-019
 LATE SUBMITTAL OF STARTUP REPORT TO THE NRC.
 EVENT DATE: 070684 REPORT DATE: 080384 NSSS: WE TYPE: PWR

(NSIC 190666) A REQUIRED TECH SPEC STARTUP REPORT WAS SUBMITTED TO THE NRC LATE. PER TECH SPEC 6.6.1.A, A STARTUP REPORT SHALL BE SUBMITTED WITHIN 90 DAYS OF STARTUP IF FUEL OF A DIFFERENT DESIGN IS USED. THE REPORT HAS BEEN SUBMITTED.

[288] ZION 2 DOCKET 50-304 LER 83-046 REV 1
 UPDATE ON TRAIN B OF SAFEGUARDS WOULD NOT RESET FROM TEST.
 EVENT DATE: 112983 REPORT DATE: 071684 NSSS: WE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190668) TRAIN B OF SAFEGUARDS WOULD NOT RESET FROM TEST AT THE COMPLETION OF PT-10A ON TRAIN B. THE BLUE PERMISSIVE LIGHT FOR "SAFETY INJECTION ACTUATION" DID RESET WHEN THE RESET P/B WAS PUSHED, BUT TRAIN B IN TEST (ANNUN.) DID NOT RESET. AFTER REINITIATING S.I. ON TRAIN B AND FOLLOWING PT-10A RESET PROCEDURE, TRAIN B RETURNED TO NORMAL. TEST RELAYS (WESTINGHOUSE BFD 48 STYLE #50E8740) FAILED DUE TO SLUGGISH OPERATION IN THE SAFEGUARDS RESET TEST CIRCUIT. THE RELAYS WERE REPLACED AND THE SAFEGUARDS RESET TEST CIRCUIT TESTED SATISFACTORILY. NO FURTHER ACTION IS REQUIRED.

[289] ZION 2 DOCKET 50-304 LER 84-014
 FAILURE OF SAFETY-RELATED SNUBBERS.
 EVENT DATE: 062684 REPORT DATE: 072684 NSSS: WE TYPE: PWR
 VENDOR: GRINNELL CORP.

(NSIC 190669) DURING VISUAL INSPECTIONS OF SAFETY-RELATED SNUBBERS, WITH UNIT 2 IN COLD SHUTDOWN CONDITIONS, FIVE SNUBBERS WERE FOUND INOPERABLE. THE VISUAL INSPECTIONS WERE CONDUCTED PER TECH SPEC 4.22.1.D. FAILURE OF THE SNUBBERS TO LOCK-UP WITHIN ACCEPTED VELOCITY LIMITS WAS DUE TO POOR SEAL CONDITIONS THAT ALLOWED THE FLUID TO LEAK OUT. ALL AFFECTED SNUBBERS WERE OVERHAULED, TESTED AND REINSTALLED. THE SNUBBERS ARE DESIGNED FOR A LOW PROBABILITY SEISMIC EVENT WHICH DID NOT OCCUR.

[290] ZION 2 DOCKET 50-304 LER 84-018
 REACTOR TRIP.
 EVENT DATE: 070884 REPORT DATE: 080784 NSSS: WE TYPE: PWR

(NSIC 190721) UNIT 2 REACTOR WAS AT 2% POWER. TURBINE WAS TRIPPED AND SEVERAL STEAM FLOW AND FEED FLOW CHANNELS NEEDED TO BE CALIBRATED. AUTHORIZATION WAS GIVEN TO INSTRUMENT MAINTENANCE (IM) DEPARTMENT TO SET UP FOR CALIBRATION. WHEN BISTABLE 505 WAS TRIPPED, IT RESULTED IN THE LOSS OF P-7 PERMISSIVE, WHICH RESULTED IN A TURBINE TRIP/REACTOR TRIP. ALL SYSTEMS FUNCTIONED PROPERLY AND THE UNIT WAS PLACED IN HOT SHUTDOWN. A MEETING WAS HELD WITH THE OPERATING ASSISTANT SUPERINTENDENT AND THE IM PLANNER. IT WAS DETERMINED THAT APPROPRIATE CAUTIONS WOULD BE ADDED TO THE IM PROCEDURES TO DIVIDE UP THE BISTABLES TO BE TRIPPED AND EXPLAIN THE REASON FOR DOING SO. OPERATING SUPERVISION WILL BE REINSTRUCTED TO USE PROPER PROCEDURE CHANGE FORMAT AND NOT TO AUTHORIZE CHANGES UNLESS A THOROUGH UNDERSTANDING IS ACHIEVED.

[291] ZION 2 DOCKET 50-304 LER 84-015
 MSIV HYDRAULIC PUMP BREAKER FAILS.
 EVENT DATE: 071184 REPORT DATE: 080384 NSSS: WE TYPE: PWR
 VENDOR: KEANE CONTROL CORP.

(NSIC 190720) DURING NORMAL OPERATOR SURVEILLANCE, IT WAS DISCOVERED THAT UNIT 2

MSIV LOOP D HAD NO CLOSING SIDE HYDRAULIC PRESSURE. THE PUMP BREAKER WAS CHECKED AND FOUND IN THE TRIPPED POSITION. THE BREAKER WAS RESET AT WHICH TIME THE BREAKER CONTROL TRANSFORMER FAILED. THE D LOOP HYDRAULIC PACKAGE WAS CROSSTIED WITH ITS NEIGHBORING LOOP AND CLOSING SIDE PRESSURE REESTABLISHED. A NEW BREAKER WAS INSTALLED AND INDEPENDENT OPERATION RETURNED. THE ROOT CAUSE OF FAILURE HAS BEEN TRACED BACK TO INTERNAL LEAKAGE OF THE KEANE SOLENOIDS DURING SHUTDOWN. THIS CAUSED EXCESSIVE CYCLING OF THE PUMP AND BREAKER WHICH EVENTUALLY RESULTED IN FAILURE BY FATIGUE OF THE BREAKER SOON AFTER STARTUP. THERE WAS NO ANNUNCIATION OF LOW CLOSING SIDE PRESSURE TO ALERT THE OPERATOR TO THE ALARM CONDITION. THE ALARM SWITCH AND ANNUNCIATOR CIRCUIT WERE LATER VERIFIED TO FUNCTION PROPERLY. NO CAUSE OF FAILURE COULD BE DETERMINED. THE ZION SAFETY ANALYSIS FOR A STEAM PIPE RUPTURE IS DESCRIBED IN SECTION 14.2.5 OF THE PSAR. THE ANALYSIS INCLUDES THE POTENTIAL FAILURE TO CLOSE OF ONE MSIV WHILE RETAINING THE ABILITY TO PREVENT BLOWDOWN OF MORE THAN ONE STEAM GENERATOR. LOSS OF CLOSING SIDE PRESSURE TO ONE MSIV IS THEREFORE INCLUDED WITHIN THE BOUNDS OF THE SAFETY ANALYSIS.

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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 those events (and revisions to those events) occurring prior to 1984 are described in NRC Regulatory Guide 1.16 and NUREG-0161, 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 Contents for Reporting, provides supporting guidance and information on the revised rule. The LER summaries in this report are arranged alphabetically by facility name. Chronologically by event date for each facility. Component, system, keyword, and component vendor indexes follow the summaries. 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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