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Licensee Event Report (LER) Compilation

For month of November 1984

Oak Ridge National Laboratory

Prepared for
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Oak Ridge National Laboratory
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Oak Ridge, TN 37830

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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 2 DOCKET 50-368 LER 82-033 REV 1
UPDATE ON SAFETY INJECTION CHECK VALVE FAILS OPEN.
EVENT DATE: 101882 REPORT DATE: 111882 NSSS: CE TYPE: PWR
VENDOR: VELAN ENGINEERING COMPANIES

(NSIC 188385) ON 10/18/82 WHILE IN MODE 6, SAFETY INJECTION CHECK VALVE 2SI-13C STUCK IN THE OPEN POSITION WHEN STROKED BY HAND. THIS HAND STROKING OPERATION WAS INITIATED AS A RESULT OF RECOMMENDATIONS OF IE NOTICE 81-30. THE HAND STROKING OPERATION WAS PERFORMED WHEN THE BONNET WAS REMOVED DURING MAINTENANCE ACTIVITIES. THE THREE COUNTERPART VALVES (2SI-13A, 2SI-13B AND 2SI-13D) WERE INSPECTED AND HAND STROKED. VALVE 2SI--13B ALSO STUCK WHEN HAND STROKED. THESE VALVES ARE THE FIRST OF TWO CHECK VALVES BETWEEN THE HIGH PRESSURE SAFETY INJECTION (HPSI) HEADER SHUTOFF VALVE AND THE INJECTION NOZZLES. THIS OCCURRENCE IS REPORTABLE PER TECH SPEC 6.9.1.9.B. INVESTIGATION REVEALED THAT THE VALVE DISC STUD FOR 2SI-13C PROTRUDED FAR ENOUGH ABOVE THE DISC NUT TO INTERFERE WITH THE BODY AND HOLD THE DISC ASSEMBLY IN THE OPEN POSITION. THE VENDOR DRAWING SHOWED THE DISC STUD TO BE FLUSH WITH THE TOP OF THE DISC NUT. THE PORTION OF THE DISC STUD THAT PROTRUDED ABOVE THE NUT WAS FILED OFF LEAVING THE TOP OF THE STUD FLUSH WITH THE TOP OF THE DISC NUT. VALVE 2SI-13B STUCK BECAUSE THE DISC WAS MISALIGNED ALLOWING THE DISC TO STICK AGAINST THE SIDE OF THE BODY. THIS INTERFERENCE RESULTED FROM THE BUSHINGS BEING IMPROPERLY POSITIONED. THE BUSHINGS WERE REPOSITIONED SO THAT THE VALVE FUNCTIONED PROPERLY WITH NO STICKING THROUGHOUT THE FULL STROKE OF THE VALVE.

[2] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 83-033 REV 1
UPDATE ON INADEQUATE FIRE DOOR.
EVENT DATE: 080283 REPORT DATE: 092283 NSSS: CE TYPE: PWR

(NSIC 188353) ON 8/2/83, WHILE IN MODE 1 AT 100% FULL POWER (FP), FIRE DOOR 274, WHICH IS THE ENTRANCE TO THE CABLE SPREADING ROOM, WAS FOUND TO HAVE A GAP OF GREATER THAN 3/4" AT THE BOTTOM. OUR PROCEDURES, WHICH ARE UTILIZED IN DETERMINING THE OPERABILITY OF FIRE BARRIERS IN ACCORDANCE WITH ANO-2 TECH SPEC 3.7.11, STATE THAT THERE WILL BE NO GREATER THAN 3/4" AIR GAP AT THE BASE OF FIRE DOORS. THIS OCCURRENCE WAS DISCOVERED DURING A FIRE BARRIER VISUAL INSPECTION. THIS OCCURRENCE IS REPORTABLE PER TECH SPEC 6.9.1.9.B. NO PREVIOUS OCCURRENCES REGARDING EXCESSIVE FIRE DOOR GAP HAVE BEEN REPORTED. OTHER LER'S REGARDING FIRE BARRIERS INCLUDE (50-368) 80-081, 81-029, 81-042, 82-029, 82-039, 83-004, 83-008, 83-020, 83-021 AND 83-032. THE FIRE DOOR WAS PREVIOUSLY INSTALLED AND INSPECTED BY PROCEDURES THAT DID NOT CONTAIN GUIDANCE RELATING MAXIMUM ALLOWABLE CLEARANCE. IMMEDIATE ACTION WAS TO POST A FIRE WATCH UNTIL REPAIRS COULD BE MADE. A NEW THRESHOLD PLATE WAS INSTALLED TO DECREASE THE GAP TO 3/8" OR LESS. THE FIRE BARRIER VISUAL INSPECTION OF THE CABLE SPREADING ROOM IS CONTINUING.

[3] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 84-018
SODIUM HYDROXIDE PUMP DISCHARGE VALVE LOCKED CLOSED.
EVENT DATE: 061884 REPORT DATE: 082084 NSSS: CE TYPE: PWR

(NSIC 191262) AT APPROX 0225 HRS WITH THE UNIT AT 100% FULL POWER, AN OPERATOR DISCOVERED THE 'B' TRAIN SODIUM HYDROXIDE PUMP (P136B) MANUAL DISCHARGE ISOLATION VALVE (2BS-11B) IN THE LOCKED CLOSED POSITION RATHER THAN THE REQUIRED LOCKED OPEN POSITION FOR UNIT OPERATION AS STIPULATED BY TECH SPEC 3.6.2.2. THE OPERATOR WAS PERFORMING SYSTEM ALIGNMENT FOR MONTHLY SURVEILLANCE TESTING OF 2P136B AT THE TIME OF DISCOVERY. OPERATORS COMPLETED TESTING OF 2P136B AND RETURNED 2BS-11B TO THE LOCKED OPEN POSITION AT 0240. INVESTIGATION DETERMINED THE MOST PROBABLE CAUSE OF THE MISALIGNMENT WAS FAILURE TO PROPERLY REPOSITION 2BS-11B FOLLOWING THE PREVIOUS 2P136B MONTHLY SURVEILLANCE PERFORMED 6-18-84. THE FOLLOWING ACTIONS TO PREVENT RECURRENCE HAVE BEEN IMPLEMENTED: 1) ADMINISTRATIVE PROCEDURES HAVE BEEN REVISED TO PROVIDE CLARIFICATION OF 'INDEPENDENT VERIFICATION'; 2) ADMINISTRATIVE CONTROLS OVER SAFETY-RELATED

COMPONENTS WERE REITERATED VIA MEMORANDUM TO ALL OPERATORS, AND 3) SIGN-OFF SHEETS FOR CATEGORY 'E' VALVES ARE BEING DEVELOPED TO SEGREGATE VALVES FOR WHICH VISUAL INSPECTION IS ADEQUATE TO DETERMINE CORRECT POSITION AND VALVES FOR WHICH PHYSICAL MANIPULATION IS APPROPRIATE TO DETERMINE CORRECT POSITION.

[4] ARNOLD DOCKET 50-331 LER 84-021
EMERGENCY STANDBY DIESEL GENERATOR SCAVENGING AIR BLOWER FAILURE.
EVENT DATE: 061784 REPORT DATE: 070684 NSSS: GE TYPE: BWR

(NSIC 190733) AT 2055 HRS ON 6-18-84, A SURVEILLANCE TEST FOR 'B' STANDBY DG OPERABILITY WAS BEING CONDUCTED WHEN THE DIESEL ENGINE TRIPPED ON HIGH CRANKCASE PRESSURE WHILE LOADED TO APPROX 2400KW. AN AUXILIARY OPERATOR OBSERVED SMOKE RISING FROM BURNT PAINT AT THE TOP OF THE SCAVENGING AIR BLOWER HOUSING NEAR THE ENGINE BEFORE THE ENGINE STOPPED. THE CAUSE OF THE BURNT PAINT WAS LATER DETERMINED TO BE FROM BLOWER INTERNAL FRICTION. THE PLANT ENTERED A 7 DAY LCO PER TECH SPEC 3.5.G.1 AND BEGAN SURVEILLANCE TESTING FOR 'B' STANDBY DIESEL GENERATOR INOPERABILITY. LATER INVESTIGATIONS REVEALED THAT THE SCAVENGING AIR BLOWER HAD SEIZED. THE FAILURE WAS A RESULT OF THE BLOWER ALUMINUM LOBES RUBBING THE INTERNAL CASING WHICH CAUSED SUBSTANTIAL BLOWER INTERNAL DAMAGE. WHILE INVESTIGATION INTO THE ROOT CAUSE OF THE BLOWER FAILURE CONTINUED, THE DIESEL ENGINE AND GENERATOR WERE INSPECTED FOR FURTHER DAMAGE AND A REPLACEMENT BLOWER WAS OBTAINED FROM ANOTHER UTILITY. THE DIESEL INSPECTIONS WERE COMPLETED AND THE BLOWER WAS INSTALLED BEFORE 7 DAYS HAD ELAPSED, BUT TESTING REVEALED THAT THE REPLACEMENT BLOWER'S IMPELLERS WERE RUBBING AGAINST THE HOUSING. THE PLANT INITIATED A CONTROLLED SHUTDOWN ON JUN 24. THE REPLACEMENT BLOWER AND A BLOWER PREVIOUSLY REMOVED FROM THE OTHER DIESEL ('A') 1 1/2 MO BEFORE WHICH HAD BEGUN TO RUB WERE SHIPPED TO THE MANUFACTURER (COLT/FAIRBANKS-MORSE INDUSTRIES) FOR REPAIR AND FAILURE ANALYSIS.

[5] ARNOLD DOCKET 50-331 LER 84-025
RCIC STEAM SUPPLY VALVE INOPERABILITY.
EVENT DATE: 080884 REPORT DATE: 090784 NSSS: GE TYPE: BWR
VENDOR: LIMITORQUE CORP.

(NSIC 191381) ON 08/08/84, WHILE PERFORMING A ROUTINE REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) SURVEILLANCE TEST, THE ELECTRICAL SUPPLY BREAKER FOR THE RCIC STEAM SUPPLY VALVE WAS FOUND TO TRIP EACH TIME THE VALVE WAS CYCLED CLOSED. INVESTIGATION REVEALED THAT THE TORQUE SWITCH IN THE LIMITORQUE MOTOR OPERATOR WAS OUT OF ADJUSTMENT. THE TORQUE SWITCH WAS READJUSTED AND THE VALVE CYCLED SATISFACTORILY WITH NO FURTHER SUPPLY BREAKER TRIPS. THROUGHOUT THE BRIEF PERIOD RCIC WAS INOPERABLE FOR REPAIR OF THE VALVE, ALL NECESSARY SAFETY SYSTEMS WERE OPERABLE AND THE SAFE OPERATION OF THE PLANT WAS NOT COMPROMISED.

[6] BEAVER VALLEY 1 DOCKET 50-334 LER 84-004
REACTOR TRIP DUE TO GENERATOR/TURBINE TRIP.
EVENT DATE: 052484 REPORT DATE: 062284 NSSS: WE TYPE: PWR
VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190557) DURING NORMAL FULL POWER OPERATION, THE MAIN GENERATOR EXCITER VOLTAGE REGULATOR TRIPPED. AT THIS TIME, THE CONTROL ROOM OPERATOR NOTICED THAT THE GENERATOR EXCITER FIELD BREAKER HAD ALSO TRIPPED OPEN. THE UNIT EXPERIENCED AN IMMEDIATE GENERATOR TRIP WHICH INITIATED A TURBINE TRIP AND A SUBSEQUENT REACTOR TRIP. ALL SAFETY RELATED LOADS AUTOMATICALLY TRANSFERRED TO THE OFFSITE POWER SYSTEM AS DESIGNED. DURING THIS TRANSIENT, THREE OFF NORMAL EVENTS OCCURRED. THESE WERE THE AUTO START OF THE #1 DG, THE 1A AND 1C COOLING TOWER PUMPS TRIPPED OFF OF THEIR RESPECTIVE 4KV BUSSES, AND THE CONDENSER STEAM DUMP VALVES FAILED TO OPEN IN THE TAVG MODE OF CONTROL EVEN THOUGH A 60% DEMAND SIGNAL WAS OBSERVED ON THE STEAM DUMP CONTROLLER. IMMEDIATE MANUAL OPERATOR ACTION

TEMPORARILY RESOLVED THE OFF NORMAL EVENTS AND THE PLANT WAS SUBSEQUENTLY STABILIZED IN MODE 3 (HOT STANDBY). THE INITIATING CAUSE OF THE EVENT WAS A RANDOM END OF LIFE TRANSISTOR FAILURE IN THE GENERATOR EXCITER VOLTAGE REGULATOR. THIS TRANSISTOR HAS BEEN REPLACED. THE TRIPPING OF THE 1A AND 1C COOLING TOWER PUMPS, AND THE AUTOSTART OF THE #1DG HAS BEEN ATTRIBUTED TO CONSERVATIVE RELAY SETPOINTS. THE APPLICABLE RELAYS ARE UNDER INVESTIGATION. THE FAILURE OF THE CONDENSER STEAM DUMP VALVES TO OPERATE IN THE TAVG MODE WAS DUE TO DIRTY CONTACTS ON THE MODE SELECTOR SWITCH. THESE CONTACTS HAVE BEEN SUBSEQUENTLY CLEANED.

[7] BIG ROCK POINT DOCKET 50-155 LER 83-007 REV 1
UPDATE ON MAIN STEAM ISOLATION VALVE FAILURE.
EVENT DATE: 080983 REPORT DATE: 081684 NSSS: GE TYPE: BWR
VENDOR: LIMITORQUE CORP.

(NSIC 191325) DURING NON-ROUTINE TESTING OF THE MAIN STEAM ISOLATION VALVE (MO-7050) THE VALVE FAILED TO STROKE CLOSED. THE VALVE NORMALLY CLOSES AUTOMATICALLY UNDER SPECIFIC CONDITIONS TO PROVIDE CONTAINMENT INTEGRITY AND MAIN STEAM ISOLATION CAPABILITY. THE FAILURE OCCURRED DURING SHUTDOWN CONDITIONS. PRIOR VALVE CLOSURE FAILURES OCCURRED PER LER 80-34, LER 78-37 AND IN A DOCKET LETTER OF APR 5, 1973. THE VALVE WAS REPAIRED AND RETURNED TO OPERABLE STATUS ON AUG 21, 1983. INVESTIGATION REVEALED A BENT TRIPPER ARM ON THE TORQUE SWITCH AND PROBABLE INCREASED SWITCH SENSITIVITY DUE TO INTERFERENCE WITH HARDENED LUBRICANT IN THE GEAR CASE. THE SWITCH ARM WAS REPOSITIONED AND THE LIMITORQUE OPERATOR (MODEL SMA-2-60) LUBRICANT WAS REPLACED. REPORTABILITY IS BASED ON TECH SPEC 6.9.2.A(3).

[8] BIG ROCK POINT DOCKET 50-155 LER 84-003 REV 1
UPDATE ON UNMONITORED LIQUID RELEASE FROM LEAKING DEMINERALIZING WATER LINE.
EVENT DATE: 053084 REPORT DATE: 081684 NSSS: GE TYPE: BWR

(NSIC 191237) SAMPLES TAKEN OF WATER LEAKAGE INTO THE BELOW GRADE WALL OF THE RADWASTE PUMP ROOM INDICATED PRESENCE OF TRITIUM AND I-131 ON 5-30-84, THE TRITIUM ACTIVITY CLOSELY MATCHED THAT OF THE MAIN CONDENSATE BUT THE I-131 CONCENTRATION WAS ABOUT 0.15 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 MWEG WAS SHUT DOWN ON 5-30-84 TO INVESTIGATE THE LEAKAGE. EVALUATION AND TESTING OF UNDERGROUND LINES INDICATED A LEAK IN A 2-INCH ALUMINUM PIPE WHICH CARRIES WATER FROM THE DEMINERALIZED WATER SUPPLY TO THE MAIN CONDENSATE STORAGE TANK. DAILY MONITORING OF OUTSIDE SURFACE DRAINAGE FROM 5-30-84 THROUGH 7-25-84 INDICATES THAT THE HIGHEST CONCENTRATION OF I-131 WAS FOUND AT THE TURBINE BLDG SHOP LOADING DOCK DRAIN AT 1930 HRS ON 5-30-84 AND WAS MEASURED AT 3.0 E-07 MICRO CI/ML (1.0 MPC). TO DATE, THE PLANT HAS NOT BEEN ABLE TO DETECT IODINE IN THE DISCHARGE CANAL. DAILY MONITORING OF THE WELL, TURBINE BLDG SHOP, LOADING DOCK, DRAIN AND DISCHARGE CANAL IS CONTINUING ALONG WITH EVERY-OTHER-DAY MONITORING OF THE CREEK OUTSIDE OF THE WEST FENCE.

[9] BIG ROCK POINT DOCKET 50-155 LER 84-010
TRIP OCCURS DUE TO SHORT REACTOR PERIOD.
EVENT DATE: 072784 REPORT DATE: 082284 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CO.

(NSIC 191285) ON 7-27-84, AT 1228 HRS, WHILE THE PRIMARY SYSTEM PRESSURE WAS APPROXIMATELY 220 PSIG (CORRESPONDING TO A SATURATED TEMPERATURE OF APPROXIMATELY 395 F) WITH ALL CONTROL RODS INSERTED FOR TURBINE BYPASS VALVE INVESTIGATION, THE REACTOR PROTECTION SYSTEM (RPS) CHANNEL NUMBER 5 PERIOD MONITOR SPURIOUSLY TRIPPED, INDICATING SHORT REACTOR PERIOD, DUE TO ELECTRICAL NOISE INTERFERENCE. THE ONE OUT OF TWO RPS LOGIC FOR SHORT PERIOD SCRAM WAS SATISFIED, RESULTING IN A CHALLENGE TO THE RPS. NO CONTROL ROD DRIVE MOVEMENT OCCURRED. RPS NEUTRON

MONITORS ARE SUSCEPTIBLE TO SPURIOUS TRIPS DUE TO ELECTRICAL INTERFERENCE AT LOW POWER LEVELS. THE REACTOR WAS CRITICAL ON 7-27-84 AT 1843 HRS AND THE TURBINE WAS BROUGHT ON LINE APPROXIMATELY FIVE HOURS LATER.

[10] BROWNS FERRY 1 DOCKET 50-259 LER 84-026 REV 1
UPDATE ON RECIRCULATING PUMP SEAL FAILURE.
EVENT DATE: 062084 REPORT DATE: 081084 NSSS: GE TYPE: BWR
VENDOR: BYRON JACKSON PUMPS, INC.

(NSIC 191244) 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' RECIRCULATION PUMP UPPER SEAL WAS DISCOVERED TO HAVE FAILED. THE SEAL WAS REPLACED WITH A SPARE SEAL ASSEMBLY AND THE UNIT RETURNED TO SERVICE. BASED ON THE DISASSEMBLY AND INSPECTION OF THE SEAL COMPONENTS, ORIFICE TESTING, AND DISCUSSIONS WITH BYRON JACKSON PUMP REPRESENTATIVES, IT HAS BEEN CONCLUDED THAT THE SECOND STAGE STATIONARY CARBON RING FAILED CAUSING AN INITIAL PRESSURE DROP WHICH WAS OBSERVED ON THE SECOND STAGE SEAL. FURTHER BREAKDOWN OF THE SEAL FACE ATTRIBUTED TO INCREASED FRICTION ON BOTH THE SHAFT SLEEVE AND SHOULDER OF THE PRESSURE REDUCING CELL. THIS RESULTED IN A HIGHER THAN NORMAL SECOND STAGE TEMPERATURE.

[11] BROWNS FERRY 1 DOCKET 50-259 LER 84-027 REV 1
UPDATE ON MAIN STEAM RELIEF VALVE LIFTING.
EVENT DATE: 062784 REPORT DATE: 082884 NSSS: GE TYPE: BWR
VENDOR: TARGET ROCK CORP.

(NSIC 191347) DURING NORMAL UNIT STARTUP FOLLOWING A SHORT UNIT OUTAGE, WHILE APPROACHING 1 PERCENT POWER WITH APPROXIMATELY 400 PSIG REACTOR PRESSURE, A MAIN STEAM RELIEF VALVE BEGAN TO UNSEAT. IT CONTINUED TO LEAK CAUSING THE TORUS TEMPERATURE TO APPROACH TECH SPEC LIMITS AND THE UNIT WAS MANUALLY SCRAMMED AT 350 PSIG. THE RELIEF VALVE SUBSEQUENTLY RESEATED AT 100 PSIG. NO UNUSUAL OCCURRENCES FOLLOWED. THE VALVE WAS REPLACED AND THE UNIT RESTARTED. THE RELIEF VALVE WAS TESTED AT WYLE LABORATORIES; IT PERFORMED NORMALLY. IT WAS THEN DISASSEMBLED AND ALL INTERNAL PARTS WERE FOUND TO BE NORMAL. NO REASON, EITHER ELECTRICAL OR MECHANICAL, COULD BE FOUND TO EXPLAIN THE PREMATURE VALVE ACTUATION. NO FURTHER CORRECTIVE ACTION IS NECESSARY.

[12] BROWNS FERRY 1 DOCKET 50-259 LER 84-029
RESIDUAL HEAT REMOVAL SERVICE WATER PUMPS DECLARED INOPERABLE.
EVENT DATE: 072084 REPORT DATE: 081784 NSSS: GE TYPE: BWR

(NSIC 191245) DURING NORMAL OPERATION, A 24 HR LIMITING CONDITION OF OPERATION (LCO) WAS ENTERED AFTER SI 4.5.C.3, ASME SECTION XI PUMP PRESSURE CRITERIA WAS NOT MET FOR 4 RESIDUAL HEAT REMOVAL SERVICE WATER (RHRSW) PUMPS. HOWEVER, THE TECH SPEC FLOW CRITERIA FOR EACH PUMP WAS MET. THE PUMPS WERE DECLARED INOPERABLE. THE TECH SPEC 3.5.C.6 LCO WAS ENTERED BECAUSE AN EARLIER TAGOUT OF DG 1A EFFECTIVELY RENDERED ITS ASSOCIATED RHRSW PUMPS, A1 AND A2, INOPERABLE WHEN THE 4 OTHER RHRSW PUMPS FAILED THEIR ASME SECTION XI PRESSURE REQUIREMENTS. THIS LCO LASTED 13 HRS AS SI 4.5.C.3 WAS SUBSEQUENTLY PERFORMED SUCCESSFULLY. DURING THE 13 HR PERIOD ALL REQUIRED SURVEILLANCE TESTING ON REDUNDANT COMPONENTS WAS SUCCESSFULLY PERFORMED EXCEPT UNITS 1 AND 2 VALVES (FCV 23-57) WHICH WERE NOT TESTED AS REQUIRED BY SURVEILLANCE REQUIREMENT 4.5.C.1. THIS WAS CAUSED BY PERSONNEL ERROR. THE VALVES HAD BEEN SUCCESSFULLY TESTED 3 DAYS PRIOR AS PART OF SCHEDULED SURVEILLANCE. LIVE-TIME TRAINING WAS CONDUCTED WITH ALL LICENSED PERSONNEL CONCERNING THIS ENTIRE INCIDENT. NO FURTHER CORRECTIVE ACTION IS NECESSARY.

[13] BROWNS FERRY 1 DOCKET 50-259 LER 84-032
OVERPRESSURIZATION OF CORE SPRAY PIPING.
EVENT DATE: 081484 REPORT DATE: 091384 NSSS: GE TYPE: BWR

(NSIC 191348) WITH THE REACTOR OPERATING AT 100 PERCENT STEADY STATE POWER, A PERSONNEL ERROR DURING THE PERFORMANCE OF SURVEILLANCE TEST 4.2.B.39-A, "CORE SPRAY LOGIC TEST," ALLOWED THE INBOARD INJECTION VALVE, FCV 75-25, TO OPEN. PREVIOUS MAINTENANCE TO THE SOLENOID WHICH CONTROLS THE AIR TO THE ACTUATOR OF THE INBOARD ISOLATION VALVE (A TESTABLE CHECK VALVE) CAUSED THE ACTUATOR TO HOLD THE CHECK VALVE IN THE OPEN POSITION. THIS ALLOWED A BACKFLOW OF REACTOR COOLANT INTO LOOP I OF THE CORE SPRAY SYSTEM AT THE SYSTEM RELIEF VALVE LETDOWN FLOW RATE. THIS VALVE ALIGNMENT ALSO PRESSURIZED THE CORE SPRAY PIPING TO NEAR REACTOR PRESSURE AND HEATED PORTIONS OF THE PIPING TO A MAXIMUM OF 400F. LOOP I WAS ISOLATED WHICH PLACED THE UNIT IN A 7-DAY LIMITING CONDITION OF OPERATION. THE UNIT WAS SHUT DOWN AND THE SOLENOID REPAIRED. THE SYSTEM AND APPURTENANT EQUIPMENT WERE INSPECTED AND NO DAMAGE WAS NOTED. ENGINEERING EVALUATION OF THE AFFECTED PIPING AND SUPPORTS INDICATED THAT THE TRANSIENT DID NOT AFFECT SYSTEM INTEGRITY FOR CONTINUED USE.

[14] BROWNS FERRY 1 DOCKET 50-259 LER 84-033
MANUFACTURER'S RECALL OF DEFECTIVE SQUIB CARTRIDGES.
EVENT DATE: 081584 REPORT DATE: 091184 NSSS: GE TYPE: BWR

(NSIC 191349) THE ONSITE GENERAL ELECTRIC REPRESENTATIVE AT BROWNS FERRY NUCLEAR PLANT NOTIFIED PLANT STAFF THAT THE INSTALLED SQUIB CARTRIDGES ON THE TRAVERSING INCORE PROBE (TIP) SHEAR VALVES WERE POSSIBLY DEFECTIVE. TIP TESTING WAS IN PROGRESS AT THE TIME AND WAS TERMINATED. TIPS WERE PULLED BACK INTO THEIR SHIELDS AND THE BALL VALVES CLOSED. THE DEFECTIVE SQUIB CARTRIDGES WERE INSTALLED ONLY IN UNIT 1. NEW SQUIB CARTRIDGES WERE RECEIVED AND INSTALLED WHICH RESTORED FULL SHEAR VALVE OPERABILITY. NO FURTHER CORRECTIVE ACTION IS NECESSARY.

[15] BROWNS FERRY 3 DOCKET 50-296 LER 81-052 REV 1
UPDATE ON MG SET FAILURE.
EVENT DATE: 092781 REPORT DATE: 092782 NSSS: GE TYPE: BWR
VENDOR: BASLER ELECTRIC COMPANY

(NSIC 181762) DURING NORMAL OPERATION, LPCI MG SET 3EA, ALTERNATE FEED FOR 480V REACTOR MOV BOARD 3E, WAS REMOVED FROM SERVICE TO REPAIR ITS UNSTABLE VOLTAGE REGULATOR. ALL OTHER MG SETS WERE OPERABLE. TECH SPEC 3.9.B.11 ALLOWS OPERATION FOR 7 DAYS WITH ONE MG SET INOPERABLE. FEEDBACK CAPACITOR C8 FAILED CAUSING THE GENERATOR VOLTAGE TO SWING ABOUT 5 TO 10 VOLTS. BASLER ELECTRIC TYPE KR4F, MODEL P/N-9-1161-100 VOLTAGE REGULATOR WAS REPLACED. IT HAS BEEN DETERMINED THAT C8 CAPACITOR FAILURE DOES NOT MAKE THE GENERATOR INOPERABLE. NO ADDITIONAL FAILURES HAVE OCCURRED AND NO FURTHER RECURRENCE CONTROL IS REQUIRED.

[16] BROWNS FERRY 3 DOCKET 50-296 LER 84-007 REV 1
UPDATE ON DIESEL GENERATOR INADVERTENTLY STARTING.
EVENT DATE: 061684 REPORT DATE: 082884 NSSS: GE TYPE: BWR

(NSIC 191254) DURING PERFORMANCE OF SPECIAL ELECTRICAL MAINTENANCE INSTRUCTION 37, DG 3B WAS INADVERTENTLY STARTED. THE AUTOMATIC START SIGNAL WAS CAUSED BY SHORTING 2 TERMINALS OF AN HFA RELAY BEING REPLACED AS PART OF THE PROCEDURE. IN A SECOND ATTEMPT TO COMPLETE THE PROCEDURE THE DIESEL WAS AGAIN STARTED. THE SECOND START WAS ALSO CAUSED BY SHORTING 2 TERMINALS OF AN HFA RELAY TOGETHER. THE ROOT CAUSE WAS PERSONNEL ERROR AND PROCEDURAL DEFICIENCY. SPECIAL ELECTRICAL MAINTENANCE INSTRUCTION 37 WAS SUCCESSFULLY COMPLETED ON JULY 16, 1984. THE RELAY WAS CHANGED OUT WITHOUT THE DG'S STARTING. THEREFORE, IT WAS CONCLUDED

THAT THE CAUSE OF THE SECOND DG STARTS WAS ALSO THAT OF SHORTING 2 TERMINALS ON THE HFA RELAY TOGETHER.

[17] BROWNS FERRY 3 DOCKET 50-296 LER 84-008
ALL EIGHT DIESEL GENERATORS STARTED DURING SURVEILLANCE TESTING.
EVENT DATE: 072784 REPORT DATE: 082184 NSSS: GE TYPE: BWR

(NSIC 191298) ALL 8 DG'S STARTED DURING THE PERFORMANCE OF THE CORE SPRAY LOGIC FUNCTIONAL TEST SURVEILLANCE INSTRUCTION ON UNIT 3, LOOP I, CORE SPRAY. UNITS 1 AND 2 WERE IN NORMAL OPERATION WHILE UNIT 3 WAS IN ITS CYCLE 5 REFUELING OUTAGE. THE DIESELS STARTED DUE TO THE IMPROPER INTERPRETATION AND USE OF THE PROCEDURE INSTRUCTIONS. THE BASIC CAUSE FOR THE MISINTERPRETATION WAS PROCEDURAL DEFICIENCY. THE PROCEDURE MAKES NO MENTION OF HOW THE DG LOGIC WAS DISABLED NOR DID IT STATE THAT THE DG AND CORE SPRAY LOGIC HAD COMMON INITIATING RELAYS. ALL 8 DG'S WERE MANUALLY TRIPPED AND PLACED BACK INTO STANDBY READINESS. CHANGES TO THIS PROCEDURE AS WELL AS SIMILAR SURVEILLANCE INSTRUCTIONS WILL BE REVISED TO PREVENT RECURRENCE.

[18] BRUNSWICK 1 DOCKET 50-325 LER 84-016
LOSS OF PLANT EMERGENCY 4160 VAC BUS E-3.
EVENT DATE: 080784 REPORT DATE: 090584 NSSS: GE TYPE: BWR
VENDOR: BROWN BOVERI

(NSIC 191377) ON AUGUST 7, 1984, AT 0134, WHILE PLACING AN EQUIPMENT CLEARANCE TO PERMIT PREVENTIVE MAINTENANCE ON UNIT 2 DC ELECTRICAL BATTERY BANK 2A-2, THE NORMAL POWER SUPPLY FEEDER BREAKER, 2D, TO PLANT 4160 VAC EMERGENCY BUS E-3 AUTOMATICALLY OPENED WHEN THE FEEDER BREAKER 125 VDC CONTROL POWER SUPPLY WAS CHANGED FROM THE NORMAL TO THE ALTERNATE POWER SOURCE. UNIT 2 GROUP 6 AND 8 ISOLATIONS OCCURRED. WITHIN TEN SECONDS PLANT EMERGENCY DIESEL GENERATOR NO. 3 AUTOMATICALLY STARTED TO REENERGIZE E-3. THE CONTROL BUILDING EMERGENCY AIR FILTRATION SYSTEM ISOLATED DUE TO A SPURIOUS CHLORINE ALARM. THE UNIT 2 REACTOR BUILDING STANDBY GAS TREATMENT TRAIN 2B AUTOMATICALLY STARTED. WITHIN EIGHT MINUTES FEEDER BREAKER 2D WAS RECLOSED. AT THE TIME OF THIS EVENT, UNIT 1 WAS AT 92 PERCENT POWER AND UNIT 2 WAS IN A REFUEL/MAINTENANCE OUTAGE. FEEDER BREAKER 2D TRIPPED AS A RESULT OF A DESIGN MISAPPLICATION O. THE DEGRADED VOLTAGE RELAY DEVICES OF E-3. THIS PROBLEM ALSO APPLIES TO PLANT EMERGENCY BUSES E-1, 2, AND 4. IN THIS CASE THE E-3 DEVICES' OUTPUT TRIP RELAY CONTACTS DID NOT DEENERGIZE (REOPEN) BEFORE THEIR RESPECTIVE TRIP COIL RELAYS TIMED OUT AND TRIPPED 2D. APPROPRIATE PLANT MODIFICATIONS WILL BE IMPLEMENTED TO INSTALL ANOTHER TYPE OF UNDERVOLTAGE RELAY DEVICE ON E-1 THROUGH E-4. UNTIL INSTALLATION OF THESE MODIFICATIONS, APPROPRIATE ADMINISTRATIVE PROCEDURES WILL BE UTILIZED TO DISARM THE DEVICES FOR DC CONTROL POWER REALIGNMENTS.

[19] BRUNSWICK 1 DOCKET 50-325 LER 84-013
AUTOMATIC ACTUATION OF CONTROL BUILDING EMERGENCY AIR FILTRATION TRAIN B.
EVENT DATE: 081784 REPORT DATE: 091484 NSSS: GE TYPE: BWR

(NSIC 191376) ON 8-17-84, AT 1301, TRAIN B OF THE CONTROL BLDG EMERGENCY AIR FILTRATION (CBEAF) SYSTEM AUTOMATICALLY STARTED DUE TO A SPURIOUS FIRE ALARM IN THE UNIT 2 REACTOR TURBINE GAUGE BOARD (RTGB) AREA OF THE COMMON UNIT 1 - UNIT 2 CONTROL ROOM. THE FIRE ALARM UNEXPECTEDLY RESULTED FROM THE USE OF A PORTABLE HEAT GUN WITHIN 5 FEET OF THE CONTROL ROOM FIRE DETECTOR C-13-6. THE HEAT GUN WAS IN USE TO INSTALL ELECTRICAL INSULATION HEAT SHRINK TUBING IN UNIT 2 RTGB PANEL XU-2 DURING AUTHORIZED MODIFICATION WORK. AT THE TIME, UNIT 1 WAS OPERATING AT 99% POWER AND UNIT 2 WAS IN A REFUEL/MAINTENANCE OUTAGE. IN ADDITION, THE REDUNDANT CBEAF SYSTEM TRAIN A WAS IN STANDBY. WITHIN APPROX 4 MINS OF THE EVENT, CBEAF SYSTEM TRAIN B WAS SECURED AND RETURNED TO STANDBY.

ACTUATION OF A CBEAF SYSTEM TRAIN PLACED THE INVOLVED UNIT IN ITS DESIGN MODE OF OPERATION.

[20] BRUNSWICK 2 DOCKET 50-324 LER 82-006 REV 1
UPDATE ON SUPPRESSION CHAMBER WATER LEVEL INDICATION FAILURE.
EVENT DATE: 012982 REPORT DATE: 010583 NSSS: GE TYPE: BWR
VENDOR: BAILEY INSTRUMENT CO., INC.

(NSIC 181538) DURING ROUTINE SURVEILLANCE, A COMPARISON OF RTGB INDICATIONS OF SUPPRESSION CHAMBER WATER LEVEL REVEALED THAT RTGB INSTRUMENT, 2-CAC-LR-2602, INDICATED A LEVEL OF -27.5" WHILE RTGB INSTRUMENT, 2-CAC-LI-2602-3 INDICATED A LEVEL OF -29". A CHECK OF THE LOCAL LEVEL INDICATOR DETERMINED THE ACTUAL LEVEL TO BE -26.5". THIS VALUE EXCEEDED THE SPECIFIED UPPER LIMIT AND IS BEING REPORTED IN LER 2-82-21. TECH SPECS 3.3.5.3, 6.9.1.9B. A LOSS OF TRICKLE FLOW TO THE WET REFERENCE LEGS OF BOTH INSTRUMENTS' RESPECTIVE TRANSMITTERS, 2-CAC-LT-2602 AND LT-2601, MODEL NO. BQ15221, CAUSED BOTH TRANSMITTERS TO SEND INCORRECT INPUT SIGNALS TO THEIR PARTICULAR INDICATORS. THE TRICKLE FLOW WAS PROPERLY ESTABLISHED AND EACH TRANSMITTER WAS CALIBRATED AND RETURNED TO SERVICE. THE AFFECTED INDICATORS WERE THEN OBSERVED SHOWING EXPECTED INDICATIONS.

[21] BRUNSWICK 2 DOCKET 50-324 LER 84-009
REACTOR PROTECTION SYSTEM ACTUATIONS DURING REFUELING OUTAGE.
EVENT DATE: 081084 REPORT DATE: 090784 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CORP. (NUCLEAR ENG DIV)

(NSIC 191374) DURING A UNIT 2 REFUEL/MAINTENANCE OUTAGE ON 8-10-84, AT 0149, A SPURIOUS INSTRUMENT UPSCALE SPIKE OF UNIT 2 REACTOR POWER INTERMEDIATE RANGE MONITOR (IRM) D OCCURRED WHILE THE RPS SHORTING LINKS WERE REMOVED. AN AUTOMATIC TRIP OF BOTH SYSTEM LOGIC CHANNELS A AND B RESULTED. BOTH CHANNELS WERE RESET SHORTLY THEREAFTER. SUBSEQUENT FUNCTIONAL TESTING OF IRM D REVEALED NO PROBLEMS. LATER AT 1459, WHILE RESETTING NUMEROUS EXPECTED RPS B3 CHANNEL TRIPS DURING REMOVAL OF THE B3 SHORTING LINKS, AN A3 RPS CHANNEL TRIP OCCURRED JUST BEFORE A B3 CHANNEL TRIP, RESULTING IN A FULL RPS TRIP. NUMEROUS B3 CHANNEL TRIP RESETS CAUSED THE RETAINING CLIP FOR THE CONTROL POWER LEAD TO THE COIL OF THE A3 CHANNEL MANUAL SCRAM SOLENOID ACTUATION RELAY, 2-C72-K15C, TO VIBRATE, BECOME LOOSE, AND ALLOW THE LEAD TO SEPARATE FROM THE COIL. AS A RESULT, K15C DEENERGIZED AND TRIPPED A3. THE SUBJECT LEAD WAS PROPERLY CONNECTED TO K15 AND THE RELAY WAS RETURNED TO SERVICE WITHIN 2.67 HRS OF THE EVENT. DUE TO THIS EVENT AND A SIMILAR OCCURRENCE ON 1-12-84, THE UNIT 2 RPS AUTOMATIC AND MANUAL SCRAM TRIP LOGIC RELAYS WILL BE INSPECTED TO CHECK FOR ANY PROBLEMS WITH RELAY COIL POWER LEAD RETAINER CLIPS. THIS INSPECTION WILL BE PERFORMED PRIOR TO COMPLETION OF THE ONGOING UNIT 2 REFUEL/MAINTENANCE OUTAGE. A SIMILAR INSPECTION WILL BE PERFORMED ON UNIT 1 DURING A FUTURE APPROPRIATE UNIT OUTAGE.

[22] BRUNSWICK 2 DOCKET 50-324 LER 84-010
REACTOR PROTECTION SYSTEM ACTUATION DURING REFUELING/MAINTENANCE OUTAGE.
EVENT DATE: 082784 REPORT DATE: 091884 NSSS: GE TYPE: BWR

(NSIC 191375) ON 8-27-84, AT 1032, DURING A UNIT 2 REFUEL/MAINTENANCE OUTAGE, AN AUTOMATIC TRIP OF BOTH RPS CHANNELS A AND B OCCURRED. AT THE TIME, THE UNIT 2 REACTOR CONTROL RODS WERE INSERTED, REACTOR PRESSURE WAS ATMOSPHERIC, AND REACTOR WATER TEMPERATURE WAS 110F. IN ADDITION, NO UNIT 2 CONTROL ROOM ALARM ANNUNCIATIONS ATTRIBUTABLE TO THIS EVENT, OTHER THAN THE REACTOR AUTO SCRAM CHANNELS A AND B ALARM, WERE RECEIVED. BOTH RPS CHANNELS WERE RESET SHORTLY AFTER THE EVENT. A CHECK OF UNIT 2 INSTRUMENTATION, WHICH MAY HAVE INITIATED THE EVENT, DID NOT REVEAL ANY ABNORMALITIES. IT IS FELT THE EVENT MAY HAVE RESULTED FROM A SPURIOUS UPSCALE INSTRUMENT SPIKE OF RPS INSTRUMENTATION. THIS CONCEIVABLY COULD HAVE BEEN CAUSED BY WELDING OR MECHANICAL SHOCK DURING UNIT 2

OUTAGE-RELATED ACTIVITIES IN THE VICINITY OF RPS INSTRUMENTATION. HOWEVER, NO CORRELATION COULD BE DETERMINED BETWEEN THE EVENT AND ONGOING OUTAGE-RELATED ACTIVITIES. THE ANTICIPATED DECREASE IN UNIT 2 REFUEL-RELATED ACTIVITIES, AS THE UNIT 2 REFUEL APPROACHES COMPLETION, WILL HELP TO REDUCE THE POSSIBILITY OF INADVERTENT RPS ACTUATIONS. THIS EVENT OCCURRED IN THE MOST CONSERVATIVE PLANT CONDITION.

[23] CALLAWAY 1 DOCKET 50-483 LER 84-006 REV 1
UPDATE ON LOSS OF SAMPLE FLOW FOR UNIT VENT WIDE RANGE GAS MONITOR.
EVENT DATE: 061884 REPORT DATE: 072584 NSSS: WE TYPE: PWR

(NSIC 191274) 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 3.3.3.10 ACTION B INTO EFFECT REQUIRING CONTINUOUS AUX SAMPLING OF IODINE AND PARTICULATE. DUE TO THE FACT THAT CONTINUOUS AUX 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.

[24] CALLAWAY 1 DOCKET 50-483 LER 84-015
MANUAL REACTOR PROTECTION SYSTEM ACTUATION AND CHALLENGE TO PORV.
EVENT DATE: 071684 REPORT DATE: 081084 NSSS: WE TYPE: PWR

(NSIC 191275) ON 7-16-84 AT 0158 CDT, A PRESSURE TRANSIENT OCCURRED IN THE REACTOR COOLANT SYSTEM (RCS) AS A RESULT OF A LOSS OF INSTRUMENT AIR WHILE THE PLANT WAS IN MODE 5. A PRESSURIZER POWER-OPERATED RELIEF VALVE (PORV) WAS INITIALLY CYCLED MANUALLY TO REDUCE RCS PRESSURE. ALSO, TO DEVOTE FULL ATTENTION TO THE TRANSIENT, THE REACTOR OPERATOR OPENED THE REACTOR TRIP BREAKERS TO TERMINATE CONTROL ROD DRIVE MECHANISM TIMING AND DIGITAL ROD POSITION INDICATION SYSTEM TESTING IN PROGRESS AT THE TIME. INSTRUMENT AIR WAS RESTORED FOR A BRIEF PERIOD OF TIME, DURING WHICH THE RCS WAS BEING RETURNED TO PREVIOUS CONDITIONS, BUT THEN WAS LOST AGAIN AT 0225 CDT. DUE TO THE RESULTING INCREASE IN RCS PRESSURE, THE PORV LIFTED AUTOMATICALLY. INSTRUMENT AIR WAS RESTORED AND RCS PRESSURE MAINTAINED AT 350 PSIG AT 0245 CDT. THE MAXIMUM PRESSURE REACHED DURING THE TRANSIENT WAS 450 PSIG AND THERE WAS NO DAMAGE TO PLANT EQUIPMENT OR RELEASE OF RADIOACTIVE MATERIAL. THE SPECIAL REPORT SPECIFIED UNDER ITEM 21 ABOVE IS REQUIRED BY TECH SPEC SECTION 3.4.9.3 TO REPORT THE USE OF A PORV TO MITIGATE A RCS PRESSURE TRANSIENT.

[25] CALLAWAY 1 DOCKET 50-483 LER 84-016
REACTOR COOLANT SYSTEM DEPRESSURIZATION DUE TO OPERATOR ERROR.
EVENT DATE: 071784 REPORT DATE: 081684 NSSS: WE TYPE: PWR

(NSIC 191322) ON 7-17-84 THE RCS DEPRESSURIZED TO 0 PSIG AND THE PRIMARY SEAL ON REACTOR COOLANT PUMP 'C' (RCP 'C') WAS DAMAGED. THE PLANT WAS IN MODE 5, WATER SOLID WITH THE RCS AT 380 PSIG AND 180 F PRIOR TO THIS EVENT. THE CAUSE OF THE RCS PRESSURE TRANSIENT WAS DETERMINED TO BE IMPROPER SEQUENCE OF VALVE OPERATION IN THE 'A' RESIDUAL HEAT REMOVAL PUMP SURVEILLANCE PROCEDURE RESTORATION. RHR TRAIN 'B' WAS ALIGNED TO TAKE A SUCTION AND DISCHARGE TO THE RCS, AND RHR TRAIN 'A' WAS BEING RESTORED FROM THE SURVEILLANCE DURING WHICH THE SUCTION AND DISCHARGE WERE ALIGNED TO THE REFUELING WATER STORAGE TANK (RWST). THE PROCEDURE REQUIRED OPENING THE TRAIN 'B' RHR INJECTION BALANCE LINE ISOLATION VALVE (EJ-HV-8716B) PRIOR TO ISOLATING THE RHR INJECTION BALANCE LINE FROM THE RWST BY CLOSING BN-8717. THUS, THE RHR PUMP WAS TAKING SUCTION FROM THE RCS AND DISCHARGING TO THE RWST, WHICH IMMEDIATELY DEPRESSURIZED THE RCS. RCP SEAL DAMAGE OCCURRED WHEN THE RCS DEPRESSURIZED TO 0 PSIG. THE SEAL WAS REPLACED AND RCP 'C' RETURNED TO SERVICE ON 8-6-84. A TEMPORARY CHANGE NOTICE WAS ISSUED TO

CORRECT THE RHR SURVEILLANCE PROCEDURE. SIMILAR PROCEDURES WERE ALSO REVIEWED FOR IMPACT ON PLANT CONDITIONS.

[26] CALLAWAY 1 DOCKET 50-483 LER 84-025
INADVERTENT ACTUATION OF ENGINEERED SAFETY FEATURES.
EVENT DATE: 081084 REPORT DATE: 090984 NSSS: WE TYPE: PWR
VENDOR: GENERAL ATOMIC CO.

(NSIC 191232) ON 8-10-84 AT 1412 CDT AN INADVERTENT ENGINEERED SAFETY FEATURE (ESF) ACTUATION SIGNAL OCCURRED, DUE TO A SPURIOUS SPIKE ON RADIATION MONITOR GT-RE-22, INITIATING A CONTROL ROOM VENTILATION ISOLATION SIGNAL (CRVIS) AND A CONTAINMENT PURGE ISOLATION SIGNAL (CPIS). TECHNICIANS WERE DISPATCHED AT THE TIME OF THE EVENT, TO DETERMINE THE CAUSE OF THE ESF ACTUATION SIGNAL. A NOISY GASEOUS CHANNEL DETECTOR, WHICH HAD BEEN PROVIDING ELEVATED RADIATION READINGS, SPIKED CAUSING THE CRVIS AND CPIS. AS A SHORT-TERM SOLUTION, GT-RE-22 WAS RETURNED TO SERVICE BY ALTERING THE DATA BASE AT THE CENTRAL MINICOMPUTER CONTROLLER, RM-11, TO COMPENSATE FOR THE ELEVATED READINGS PROVIDED BY THE NOISY GASEOUS CHANNEL DETECTOR. GT-RE-22 WAS DECLARED OPERABLE AT 1518 CDT AND THE CRVIS AND CPIS WERE RESET PER PLANT OPERATING PROCEDURES AS 1522 CDT. A NEW SCINTILLATOR AND PHOTOMULTIPLIER TUBE ASSEMBLY HAS BEEN ORDERED FOR THE DETECTOR AND WILL BE INSTALLED BY APPROX 10-1-84. NO RADIATION ABOVE NORMAL BACKGROUND WAS PRESENT.

[27] CALLAWAY 1 DOCKET 50-483 LER 84-026
POWER SOURCES NOT DEMONSTRATED OPERABLE WITHIN TIME LIMITS.
EVENT DATE: 081184 REPORT DATE: 091084 NSSS: WE TYPE: PWR

(NSIC 191323) TECH SPECS REQUIRE THE OPERABILITY OF 1) TWO PHYSICALLY INDEPENDENT CIRCUITS BETWEEN THE OFFSITE TRANSMISSION NETWORK AND THE ONSITE CLASS IE DISTRIBUTION SYSTEM AND 2) TWO SEPARATE AND INDEPENDENT DG'S. ON 8-11-84 WHILE IN MODE 4, A MAINTENANCE OUTAGE FOR 1 OF 2 4160V CLASS IE BUSES RENDERED DG A INOPERABLE. WITH ONE DG INOPERABLE, THE TECH SPEC ACTION STATEMENT REQUIRES DEMONSTRATION OF THE OPERABILITY OF THE REMAINING AC SOURCES WITHIN 1 HR AND EVERY 8 HRS THEREAFTER. DUE TO PERSONNEL OVERSIGHT, A VERIFICATION OF CORRECT BREAKER ALIGNMENTS WAS NOT PERFORMED WITHIN 1 HR TO SHOW OPERABILITY OF THE OFFSITE AC CIRCUIT. THE SURVEILLANCE PROCEDURE WHICH VERIFIES THE CORRECT BREAKER ALIGNMENTS WAS PERFORMED SATISFACTORILY UPON DISCOVERY OF THE OVERSIGHT. ACTION TAKEN TO PREVENT RECURRENCE OF THIS INCIDENT INCLUDES A MORE DETAILED REVIEW OF OUTAGE PACKAGES TO ENSURE ADEQUATE PLANNING HAS BEEN COMPLETED. SHIFT SUPERVISORY PERSONNEL HAVE BEEN CAUTIONED ABOUT CONDITIONAL SURVEILLANCE REQUIREMENTS.

[28] CALLAWAY 1 DOCKET 50-483 LER 84-029
CONTAINMENT SPRAY SYSTEM VALVED OUT OF SERVICE.
EVENT DATE: 081484 REPORT DATE: 091084 NSSS: WE TYPE: PWR

(NSIC 191324) ON 8-14-84 WHILE IN MODE 4 A REVIEW OF WORKMAN'S PROTECTION ASSURANCE (WPA) REVEALED THAT THE CONTAINMENT SPRAY MANUAL ISOLATION VALVES WERE IN THE LOCKED CLOSED POSITION. THESE VALVES BEING CLOSED MADE THE CONTAINMENT SPRAY SYSTEM INOPERABLE WHICH VIOLATED TECH SPEC 3.6.2.1 REQUIRING THE CONTAINMENT SPRAY SYSTEM TO BE OPERABLE IN MODE 4. THE VALVES WERE SUBSEQUENTLY OPENED, LOCKED, AND INDEPENDENTLY VERIFIED. FURTHER INVESTIGATION ON 8-14-84 REVEALED THAT THE AFORE-MENTIONED VALVES WERE ALSO NOT ENTERED IN THE EQUIPMENT OUT OF SERVICE LOG (EOSL). IMMEDIATE REVIEWS OF THE SURVEILLANCE MASTER TRACKING LOG, OUTSTANDING WORK REQUESTS, OUTSTANDING WPA, AND OUTSTANDING TEMPORARY MODIFICATIONS WERE INITIATED AGAINST THE EOSL TO MAKE IT CURRENT. NO ADDITIONAL DISCREPANCIES WERE FOUND FOR MODE 4, AND THE EOSL WAS BROUGHT UP-TO-DATE FOR

MODES 1 THROUGH 3. DUE TO THE PLANT OPERATING CONDITIONS, THIS EVENT HAD NO EFFECT ON POWER OPERATIONS.

[29] CALLAWAY 1 DOCKET 50-483 LER 84-030
ONLY 3 OF 4 TEMP. ELEMENTS USED FOR CALCULATING AVERAGE CONTAINMENT AIR TEMPERATURE.
EVENT DATE: 081684 REPORT DATE: 091484 NSSS: WE TYPE: PWR

(NSIC 191233) PER TECH SPEC 3.6.1.5, THE PRIMARY CONTAINMENT AVERAGE AIR TEMPERATURE SHALL BE THE ARITHMETICAL AVERAGE OF THE TEMPERATURES AT THE 4 CONTAINMENT AIR COOLER INLETS WHILE IN MODES 1, 2, 3 AND 4. ON 4-16-84 WHILE IN MODE 4, IT WAS DISCOVERED THAT THE OPERATORS HAD BEEN TAKING AN AVERAGE OF ONLY 3 COOLER INLET TEMPERATURES WHICH DOES NOT MEET THE TECH SPEC REQUIREMENT. THE TEMPERATURE ELEMENT ON CONTAINMENT AIR COOLER 'D' HAD BEEN FAILED HIGH SINCE BEFORE ENTRY INTO MODE 4. TECH SPEC 3.6.1.5 HAD BEEN INCORRECTLY INTERPRETED BY THE OPERATORS AND THE 3 REMAINING COOLER INLET TEMPERATURES WERE USED TO DETERMINE THE CONTAINMENT AVERAGE TEMPERATURE. UPON DISCOVERY, A CALIBRATED THERMOMETER WAS OBTAINED AND WILL BE USED TO OBTAIN THE TEMPERATURE OF COOLER INLET 'D', THUS SATISFYING THE REQUIREMENT THAT THE CONTAINMENT AVERAGE TEMPERATURE WILL BE TAKEN FROM ALL 4 CONTAINMENT COOLER INLETS. IN ADDITION, A NIGHT ORDER WAS ISSUED TO CLARIFY THIS TECH SPEC REQUIREMENT. NO ADVERSE CONSEQUENCES RESULTED FROM AVERAGING ONLY 3 TEMPERATURE POINTS, AND THE CONTAINMENT AVERAGE AIR TEMPERATURE DID NOT EXCEED TECH SPEC LIMITS.

[30] CALVERT CLIFFS 1 DOCKET 50-317 LER 84-008
BATTERY INOPERABLE CAUSES LOSS OF SECOND EMERGENCY CORE COOLING SYSTEM.
EVENT DATE: 080884 REPORT DATE: 090484 NSSS: CE TYPE: PWR
VENDOR: EXIDE INDUSTRIAL DIV

(NSIC 191370) DURING WEEKLY SURVEILLANCE TESTING ON 21 BATTERY, WHICH SUPPLIES 125V DC CONTROL POWER TO THE 'B' TRAIN OF BOTH UNITS, THE PILOT CELL ELECTROLYTE LEVEL WAS FOUND ABOVE THE HIGH-LEVEL MARK. FURTHER INVESTIGATION REVEALED OVER 50% OF THE CELLS IN THE BATTERY HAD ELECTROLYTE LEVELS ABOVE THE HIGH-LEVEL MARK. THIS CONDITION WAS CAUSED BY APPARENT EXPANSION OF THE ELECTROLYTE DURING THE EQUALIZE CHARGE FOLLOWING THE 18 MONTH "IN-SERVICE SURVEILLANCE TEST" WHICH WAS COMPLETED 3 DAYS PRIOR TO THIS EVENT. NONE OF THE CELLS WERE IN AN OVERFLOW CONDITION. A REVIEW OF THE IN-SERVICE SURVEILLANCE TEST PROCEDURE INDICATED THAT ELECTROLYTE LEVELS ARE NOT VERIFIED BEFORE RETURNING THE BATTERY TO SERVICE. THE PROCEDURE HAS BEEN CHANGED TO ENSURE BATTERY PARAMETERS ARE WITHIN TECH SPECS PRIOR TO RETURNING THE BATTERY TO SERVICE.

[31] CATAWBA 1 DOCKET 50-413 LER 84-003
CONTROL ROD DRIVE ASSEMBLIES REMOVED IMPROPERLY.
EVENT DATE: 072984 REPORT DATE: 082884 NSSS: WE TYPE: PWR

(NSIC 191320) WHILE LATCHING THE CONTROL ROD DRIVE ASSEMBLIES (CRDA) TO THE ROD CONTROL CLUSTER (RCC), TWO CRDA'S FAILED TO LOCK AFTER BEING PLACED IN THE LATCHED POSITION. UNIT 1 WAS IN MODE 6, INITIAL FUELING, AT THE TIME OF THIS INCIDENT. SEVERAL UNSUCCESSFUL ATTEMPTS WERE MADE IN LOCKING THESE CRDA'S TO THE RCC. IT WAS DETERMINED THAT THESE TWO CRDA'S WERE DEFECTIVE AND MUST BE REPLACED. ON 7-29-84, BETWEEN 1500 AND 1545 HRS, THE REACTOR BLDG 25 TON CRANE WAS USED TO REMOVE 2 INOPERABLE CRDA'S (CORE LOCATION D-2 AND J-3) FROM THE REACTOR VESSEL. THIS WAS IN VIOLATION OF TECH SPEC 3.9.6, WHICH STATES IN PART THAT ANY MOVEMENT OF DRIVE RODS OR FUEL ASSEMBLIES WITHIN THE REACTOR VESSEL SHALL BE PERFORMED WITH THE MANIPULATOR CRANE AND AUX HOIST. IT ALSO STATES THAT A LOAD INDICATOR WILL BE USED TO PREVENT LIFTING LOADS IN EXCESS OF 600 POUNDS. THE CAUSE OF THIS INCIDENT IS CLASSIFIED AS PERSONNEL ERROR. ONCE TECH SPEC

3.9.6 WAS IDENTIFIED AS POSSIBLY BEING VIOLATED, THE JOB WAS HALTED AND A PROCEDURE WAS WRITTEN TO COMPLETE THE TASK OF INSTALLING TWO NEW CRDA'S.

[32] CATAWBA 1 DOCKET 50-413 LER 84-007
LIQUID RELEASE MADE WITHOUT ACTIVITY SAMPLE ANALYSIS.
EVENT DATE: 080684 REPORT DATE: 090784 NSSS: WE TYPE: PWR

(NSIC 191321) THE COMPOSITE SAMPLER ON THE CONVENTIONAL WASTE WATER TREATMENT (WC) SYSTEM WAS DECLARED INOPERABLE. TECH SPEC 3.3.3.10 REQUIRES A GRAB SAMPLE TO BE TAKEN AND ANALYZED IF THE COMPOSITE SAMPLER IS DECLARED INOPERABLE AND IF A RELEASE INTO THE LAKE IS NECESSARY. ON 8-3-84, A 769,000 GALLON RELEASE WAS MADE WITHOUT TAKING THE REQUIRED GRAB SAMPLE. THIS INCIDENT IS CLASSIFIED AS A PERSONNEL ERROR. THE HEALTH PHYSICS (HP) SUPERVISOR DID NOT DIRECT THE TECHNICIANS TO TAKE THE REQUIRED GRAB SAMPLE. THE INCIDENT WAS DISCOVERED ON 8-8-84. UNIT 1 WAS IN MODE 6 AT THE TIME. THIS INCIDENT VIOLATES TECH SPEC 3.3.3.10, ACTION 42, AND IS REPORTABLE PURSUANT TO 10 CFR 50.73 SECTION (A)(2)(I).

[33] CONNECTICUT YANKEE DOCKET 50-213 LER 84-009
TOTAL LOSS OF OFFSITE POWER AND REACTOR TRIP.
EVENT DATE: 080184 REPORT DATE: 082884 NSSS: WE TYPE: PWR
VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 191329) THE REACTOR WAS CRITICAL AT 5E-10 AMPS (0% POWER) WHEN A TOTAL LOSS OF NORMAL OFFSITE POWER OCCURRED. THIS EVENT WAS INITIATED BY THE INADVERTENT CLOSING OF A 4KV CIRCUIT BREAKER DURING FINAL CHECK OUT STEPS JUST PRIOR TO REMOVAL FROM ITS SWITCHGEAR CUBICLE. CLOSURE OF THIS CIRCUIT BREAKER CONNECTED OFFSITE POWER SUPPLIES TO THE MAIN GENERATOR (TG) AND ITS DE-ENERGIZED AND UNGROUNDED STEP-UP TRANSFORMER (XFMR) THROUGH THE UNIT AUXILIARY XFMR AND ISO-PHASE BUS DUCT (IPBU). THIS CREATED AN OVERLOAD ON OFFSITE POWER SUPPLIES RESULTING IN A VOLTAGE DIP SUFFICIENT TO INITIATE LOAD SHED OF THE NON-SAFEGUARD 4KV BUSES BY OPENING BUS TIE AND SUPPLY CIRCUIT BREAKERS, AND BY DISCONNECTING THE OVERLOAD AND OFFSITE POWER SUPPLIES. THE PLANT WAS LEFT IN A TOTAL LOSS OF OFFSITE POWER CONDITION FOR 10 MINS. ALL PROTECTION LOGIC AND EQUIPMENT OPERATED AS DESIGNED TO ENERGIZE SAFEGUARD BUSES WITH THEIR EMERGENCY DG'S, SHED UNNECESSARY LOADS, AND TRIP THE REACTOR. IMMEDIATE ACTIONS TO PREVENT RECURRENCE INCLUDED DEVELOPMENT OF A REVISED GUIDANCE SHEET FOR BREAKER OPERATION AND OPERATOR RETRAINING AS THEY REPORTED ON SHIFT. IN ADDITION EVALUATIONS FOR PROTECTIVE RELAYING AND EQUIPMENT MODIFICATIONS/IMPROVEMENTS HAVE BEEN INITIATED. AN APPROVED CIRCUIT BREAKER OPERATION PROCEDURE WAS DEVELOPED AND PUT IN EFFECT.

[34] CONNECTICUT YANKEE DOCKET 50-213 LER 84-010
REACTOR COOLANT SYSTEM OVERPRESSURE PROTECTION SYSTEM OPERATES.
EVENT DATE: 080384 REPORT DATE: 083184 NSSS: WE TYPE: PWR

(NSIC 191286) WHILE SHUTTING DOWN FOR A REFUELING OUTAGE, THE REACTOR COOLANT LOW PRESSURE OVERPRESSURE PROTECTION SYSTEM RELIEF VALVES OPERATED WHEN THE OVERPRESSURE PROTECTION SYSTEM WAS PLACED IN OPERATION. THESE VALVES WERE ISOLATED FOR APPROX ONE-HALF HR WHILE THE REACTOR COOLANT SYSTEM PRESSURE AND TEMPERATURE WERE REDUCED TO BELOW THE POINT WHERE THE OVERPRESSURE PROTECTION SYSTEM RELIEF VALVES WOULD NOT OPEN. PLANNED CORRECTIVE ACTION TO PREVENT RECURRENCE IS TO REPLACE THE REACTOR COOLANT SYSTEM PRESSURE TRANSMITTERS, CHECK THE LIFT SETPOINTS ON THE OVERPRESSURE PROTECTION SYSTEM RELIEF VALVES, AND CORRECT THE SETPOINT IF REQUIRED.

[35] CONNECTICUT YANKEE DOCKET 50-213 LER 84-011
CONTAINMENT INTEGRATED LEAK RATE EXCEEDS TECH SPECS.
EVENT DATE: 081784 REPORT DATE: 091284 NSSS: WE TYPE: PWR
VENDOR: CHAPMAN VALVE & MFG
CORSBY VALVE & GAGE CO.
CRAIG SYSTEMS CORP.
CRANE COMPANY
HANCOCK CO.
TARGET ROCK CORP.

(NSIC 191330) WHILE PERFORMING A CONTAINMENT INTEGRATED LEAK RATE TEST IN ACCORDANCE WITH 10 CFR 50, APPENDIX J, SEVERAL PENETRATIONS HAD TO BE ISOLATED. AFTER ADDING THE LEAKAGE RATES OF THE ISOLATED PENETRATIONS TO THE MEASURED LEAKAGE RATE OF CONTAINMENT, IT WAS DETERMINED THAT THE 10 CFR 50, APPENDIX J ACCEPTANCE CRITERIA OF .75 LT AND THE CY TECH SPECS ACCEPTANCE CRITERIA OF LT WERE EXCEEDED. CORRECTIVE ACTION IS IN PROGRESS TO REDUCE THE INTEGRATED LEAK RATE TO ACCEPTABLE LIMITS. THE FINAL LEAKAGE RATE AND CORRECTIVE ACTION TAKEN WILL BE SUBMITTED IN THE 90 DAY REPORT.

[36] CONNECTICUT YANKEE DOCKET 50-213 LER 84-012
CONTAINMENT INTEGRATED LEAK RATE EXCEEDS TECH SPECS.
EVENT DATE: 081984 REPORT DATE: 091284 NSSS: WE TYPE: PWR
VENDOR: ALOYCO, INC.
CRANE COMPANY
MASONEILAN INTERNATIONAL, INC.
ROCKWELL MANUFACTURING COMPANY
ROCKWELL-INTERNATIONAL

(NSIC 191331) WHILE PERFORMING CONTAINMENT PENETRATION LOCAL LEAK RATE TESTING IN ACCORDANCE WITH 10 CFR 50, APPENDIX J, IT WAS DETERMINED THAT 4 VALVES EITHER INDIVIDUALLY FAILED OR PRESENTED THE POTENTIAL FOR BEING A PRIME CONTRIBUTOR TO A SUMMATION FAILURE OF THE ACCEPTANCE CRITERIA OF 0.60 LA MAXIMUM COMBINED LEAK RATE. INVESTIGATION INTO THE REASONS FOR THE VALVE FAILURES AND CORRECTIVE ACTION IS IN PROGRESS. THE RESULTS OF THIS INVESTIGATION, AS WELL AS ANY ADDITIONAL VALVE LEAK FAILURES WILL BE SUBMITTED IN THE 90 DAY NRC REPORT.

[37] CONNECTICUT YANKEE DOCKET 50-213 LER 84-015
STEAM GENERATOR EDDY CURRENT TESTING FINDS DEFECTIVE TUBING.
EVENT DATE: 082084 REPORT DATE: 091784 NSSS: WE TYPE: PWR
VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 191332) THIS EVENT REPORT CONCERNS THE EDDY CURRENT TESTING OF THE CONECTICUT YANKEE STEAM GENERATORS DURING THE 1984 REFUELING OUTAGE. THE INSPECTION WAS PERFORMED IN ACCORDANCE WITH CY TECH SPEC 4.10.1. 2 OF THE 4 GENERATORS BEING INSPECTED WERE CATEGORIZED AS C-3, ACCORDING TO TABLE 4.10.2. THIS CAUSED CY TO INSPECT ALL TUBES IN ALL 4 GENERATORS.

[38] CONNECTICUT YANKEE DOCKET 50-213 LER 84-016
FAILURE OF MAIN STEAM DRAIN VALVE TO BLOWDOWN TANK.
EVENT DATE: 082384 REPORT DATE: 091884 NSSS: WE TYPE: PWR
VENDOR: MASONEILAN INTERNATIONAL, INC.

(NSIC 191333) WHILE PERFORMING A SCHEDULED TEST OF THE ISOLATION TIME OF THE MAIN STEAM LINE DRAIN VALVES, IT WAS DISCOVERED THAT DRAIN VALVE MS-TV-1212, LEADING TO THE BLOWDOWN TANK, FAILED TO CLOSE. THIS VALVE IS REQUIRED TO CLOSE WITHIN 60 SECONDS TO INSURE CONTAINMENT INTEGRITY. THE VALVE UNDERWENT MAINTENANCE, AND IT WAS DETERMINED TO HAVE A BENT STEM. THE VALVE WAS REPAIRED AND RETESTED SATISFACTORILY.

[39] COOK 1 DOCKET 50-315 LER 84-016
AUX FEEDWATER NOT IN AUTO.
EVENT DATE: 080884 REPORT DATE: 090684 NSSS: WE TYPE: PWR

(NSIC 191368) IN MODE 3 WHILE USING AUX FEEDWATER FOR STARTUP OPERATIONS, THE MOTOR DRIVEN AUX FEEDWATER PUMPS WERE STOPPED AND THEIR CONTROL SWITCHES PLACED IN NEUTRAL TO PREVENT THEM FROM RESTARTING DUE TO THE MAIN FEED PUMPS BEING TRIPPED (NORMAL CONDITION IN MODE 3). THIS WAS DONE TO PREVENT SG LEVELS FROM INCREASING DUE TO LEAKAGE BY THE FEEDWATER VALVES AND TO REDUCE THE NEEDLESS RUN TIME ON SAFETY GRADE PUMPS. CONTROLS WERE ESTABLISHED IN PROCEDURES TO INSURE PROPER SWITCH LINEUP UPON ENTRY INTO MODE 3, BUT NO CONTROLS WERE IN PLACE TO PREVENT NEGATING PREVIOUSLY FULFILLED PROCEDURE REQUIREMENTS AS PAST PRACTICES ALLOWED THE CONTROL SWITCHES TO BE OPERATED IN MODE 3 AS NEEDED TO MAINTAIN SG LEVELS. OPERATORS WERE INSTRUCTED TO LEAVE THE CONTROL SWITCHES IN AUTO OR RUN WHILE IN MODE 3 UNTIL A BETTER SOLUTION CAN BE OBTAINED. AN UPDATED LER WILL BE FORTHCOMING.

[40] COOK 1 DOCKET 50-315 LER 84-017
AUX FEEDWATER SYSTEM STARTS ON LOSS OF MAIN FEED PUMP.
EVENT DATE: 081084 REPORT DATE: 090684 NSSS: WE TYPE: PWR

(NSIC 191301) ON 8-10-84 AT 1524 HRS, A HIGH LEVEL IN THE NO. 4 STEAM GENERATOR CAUSED A TRIP OF THE OPERATING MAIN FEEDPUMP WHICH RESULTED IN AUTOMATIC (ESF) ACTUATION OF THE MOTOR DRIVEN AUX FEEDPUMPS AND FEEDWATER ISOLATION. THE OPERATOR WAS IN THE PROCESS OF RAISING REACTOR POWER FROM 0 TO 3% DURING A STARTUP. ONLY ONE MAIN FEEDPUMP WAS IN OPERATION AT THE TIME. THE LOSS OF THE OPERATING MAIN FEEDPUMP, WITH THE SECOND MAIN FEEDPUMP BEING TRIPPED, CAUSED BOTH MOTOR DRIVEN AUX FEEDWATER PUMPS TO START. THE EVENT WAS CAUSED BY OPERATOR ERROR. A REACTOR OPERATOR AND AN UNLICENSED OPERATOR TRAINEE WERE OPERATING THE FEEDWATER SYSTEM AT THE TIME. EXCESSIVE FEEDING OF THE SG'S RESULTED IN A LOW-LOW TAVE ALARM ANNUNCIATING. FEED FLOW WAS STOPPED AND POWER WAS INCREASED TO RESTORE THE RCS TEMPERATURE. THE INITIAL HIGH LEVEL AND EXPANSION OF THE FEEDWATER CAUSED BY THE POWER INCREASE (INCREASE IN RCS TEMPERATURE) RESULTED IN THE TRIP OF THE MAIN FEEDWATER PUMP FROM HIGH-HIGH LEVEL. THE SHIFT SUPERVISOR HAS DISCUSSED THIS EVENT WITH THE OPERATORS INVOLVED. NO FURTHER ACTIONS ARE PLANNED.

[41] COOK 2 DOCKET 50-316 LER 83-058
VISUAL VERIFICATION OF BLIND FLANGE OVER FUEL TRANSFER TUBE NOT PERFORMED.
EVENT DATE: 062883 REPORT DATE: 072883 NSSS: WE TYPE: PWR

(NSIC 191327) DURING REVIEW OF THE CONTAINMENT PENETRATION SURVEILLANCE PROCEDURE IT WAS DISCOVERED THAT THE 31 DAY VISUAL VERIFICATION OF THE BLIND FLANGE OVER THE FUEL TRANSFER TUBE, CPN-1, HAD BEEN DELETED FROM ALL REVS FOLLOWING THE ORIGINAL. THIS IS NONCONSERVATIVE WITH RESPECT TO TECH SPEC 4.6.1.1A. PREVIOUS OCCURRENCES WERE 315/75-048 AND 315/81-019. FURTHER INVESTIGATION REVEALED THE 31 DAY VISUAL VERIFICATION OF CPN-1 HAD BEEN DELETED IN A REV WHICH WAS ISSUED 4/7/75. THE BLIND FLANGE USED FOR CONTAINMENT INTEGRITY AT CPN-1 HAS BEEN LEAK CHECKED AT THE CONCLUSION OF THE OUTAGES IN WHICH IT WAS USED DURING THE PERIOD THE VISUAL VERIFICATION WAS NOT DONE. THE FLANGE WAS VISUALLY VERIFIED IN PLACE AND A CHANGE SHEET WRITTEN TO INCLUDE CPN-1 IN THE PROCEDURE.

[42] COOK 2 DOCKET 50-316 LER 84-022
IMPROPERLY ISOLATED CARDOX FIRE PROTECTION SYSTEM WITH NO FIRE WATCH.
EVENT DATE: 040584 REPORT DATE: 091384 NSSS: WE TYPE: PWR

(NSIC 191369) ON 4-5-84, AT 1235 HRS, WITH UNIT 2 IN REFUELING MODE, SECURITY PERSONNEL DISCOVERED THAT THE CARDOX FIRE PROTECTION SYSTEM ON THE UNIT 2 REACTOR CABLE TUNNEL WAS ISOLATED WITH NO FIRE WATCH PRESENT. THE DURATION THIS AREA WAS

ISOLATED WITH NO FIRE WATCH PRESENT WAS CALCULATED TO BE 2 HRS AND 40 MINS. THIS IS VIOLATION OF TECH SPEC 3.7.9.3 LCO VALUE OF 1 HR. THIS EVENT WAS ORIGINALLY CLASSIFIED AS NON-REPORTABLE. DURING THE PLANT NUCLEAR SAFETY REVIEW COMMITTEE CLOSEOUT REVIEW, ON 8-27-84, OF THIS EVENT IT WAS DETERMINED THAT THE LCO HAD BEEN EXCEEDED.

[43] COOK 2 DOCKET 50-316 LER 84-020
REACTOR TRIPS ON LOSS OF VITAL BUS INVERTER.
EVENT DATE: 080584 REPORT DATE: 090484 NSSS: WE TYPE: PWR
VENDOR: SOLID STATE CONTROLS, INC.

(NSIC 191302) ON 8-5-84 AT 1414 HRS, WHILE AT 100% POWER, A REACTOR TRIP OCCURRED DUE TO THE LOSS OF A 120V AC VITAL BUS INVERTER. THE REQUIRED ESF FUNCTIONS ACTUATED PROPERLY. THESE INCLUDED A TURBINE TRIP, FEEDWATER ISOLATION AND START OF THE TURBINE AND MOTOR DRIVEN AUX FEEDWATER PUMPS. THE BUS FAILURE WAS DUE TO A BLOWN FUSE (IEEE COMPONENT FUNCTION IDENTIFIER = FU) IN THE 120V AC VITAL BUS CHANNEL 2 INVERTER. THE REACTOR TRIP OCCURRED DUE TO INDICATION OF LOW RCS FLOW WITH REACTOR POWER GREATER THAN THE P-8 SETPOINT. THE INVERTER SILICON CONTROL RECTIFIERS AND DIODES WERE REPLACED AS A PRECAUTIONARY MEASURE. THE INVERTER WAS STARTED AND OPERATED PROPERLY FOR 3.5 HRS PRIOR TO BEING DECLARED OPERABLE AT 0615 HRS ON 8-6-84. DURING AUTOMATIC ACTUATION OF THE AUX FEEDWATER SYSTEM, THE MOTOR OPERATOR FLOW CONTROL VALVES (FMO-212 AND 222) TO NUMBER 1 AND 2 SG'S DID NOT OPERATE PROPERLY ON A FLOW RETENTION SIGNAL, (FMO-212 REMAINED FULL OPEN AND FMO-222 CLOSED). THE LIMIT SWITCHES IN THE VALVE MOTOR OPERATORS WERE RESET AND THE VALVES WERE VERIFIED TO OPERATE PROPERLY.

[44] COOK 2 DOCKET 50-316 LER 84-021
OPERATION OF CONTAINMENT ISOLATION VALVES.
EVENT DATE: 080784 REPORT DATE: 090684 NSSS: WE TYPE: PWR

(NSIC 191303) ON 8-7-84, WITH THE REACTOR COOLANT SYSTEM IN MODE 3, IT WAS DISCOVERED DURING A PEVIEW OF UNIT 1 AND UNIT 2 TECH SPECS, THAT THE ASTERISKS, WHICH ALLOW OPERATION OF THE UPPER CONTAINMENT GRAB SAMPLE VALVES SM-8 AND SM-10 (ISV) UNDER ADMINISTRATIVE CONTROLS, WERE ABSENT FROM UNIT 2 TECH SPECS. THESE VALVES HAVE BEEN OPENED ON A DAILY BASIS TO OBTAIN UPPER CONTAINMENT VOLUME AIR SAMPLES WHICH IS CONTRARY TO UNIT 2 TECH SPEC 3.6.3.1. THE CAUSE OF THIS TECH SPEC VIOLATION IS BELIEVED TO BE INADEQUATE VERIFICATION OF THE TECH SPECS DURING PROCEDURE REVISION. THE UPPER CONTAINMENT VOLUME AIR IS BEING SAMPLED LOCALLY AS A RESULT OF THIS DISCOVERY AND THE SAMPLE VALVES SM-8 AND SM-10 ARE NO LONGER BEING USED. IN ADDITION, A TECH SPEC CHANGE REQUEST WILL BE SUBMITTED TO INCLUDE ASTERISKS WHICH WILL ALLOW FOR THE OPENING OF THESE VALVES UNDER ADMINISTRATIVE CONTROLS.

[45] COOPER DOCKET 50-298 LER 84-010
ACTUATION OF MAIN STEAM LINE BREAK DETECTION SENSORS.
EVENT DATE: 080884 REPORT DATE: 090584 NSSS: GE TYPE: BWR

(NSIC 191255) THE MAIN STEAM LINE BREAK DETECTION SYSTEM SENSED A HIGH TEMPERATURE IN THE STEAM TUNNEL AND GENERATED A GROUP I ISOLATION SIGNAL. THE GROUP I ISOLATION SIGNAL CAUSED THE MAIN STEAM ISOLATION VALVES (MSIVS) TO SHUT. AFTER THE MSIVS LEFT THE OPEN POSITION BY 10%, THE REACTOR PROTECTIVE SYSTEM GENERATED A REACTOR SCRAM. ALL SAFETY SYSTEMS OPERATED AS REQUIRED AND NO PERSONNEL ERRORS WERE NOTED. THE HIGH TEMPERATURE IN THE STEAM TUNNEL WAS SUBSEQUENTLY DETERMINED TO BE DUE TO INADEQUATE MAIN STEAM LINE INSULATION IN THE STEAM TUNNEL NECESSARY TO SUPPORT FULL POWER OPERATION DURING THE HOT SUMMER MONTHS. ADDED INSULATION ON THE MAIN STEAM LINES HAS BEEN EFFECTIVE IN PREVENTING ANY FURTHER UNWANTED GROUP I ISOLATION SIGNALS FROM BEING GENERATED BY THE MAIN STEAM LINE BREAK DETECTION SYSTEM.

[46] CRYSTAL RIVER 3 DOCKET 50-302 LER 83-043 REV 1
UPDATE ON EMERGENCY FEEDWATER TRAIN INOPERABLE.
EVENT DATE: 100383 REPORT DATE: 082484 NSSS: BW TYPE: PWR
VENDOR: CRANE COMPANY

(NSIC 191234) AT 0130 ON 10-3-83, DURING ROUTINE OPERATIONS, IT WAS DISCOVERED THAT THE 'FAULT' LIGHT ON THE EMERGENCY FEEDWATER (EFW) ULTRASONIC FLOW INDICATOR FOR 'B' SG (FW-313-FI) WAS ILLUMINATED. THIS MALFUNCTION CAUSED TRAIN 'B' OF THE EFW SYSTEM TO BE CONSIDERED INOPERABLE (TECH SPEC 3.7.1.2). THIS IS THE 12TH FAILURE OF THIS INSTRUMENT AND THE 23RD REPORT UNDER TECH SPEC 3.7.1.2. A VOID IN THE EFW LINE CAUSED THE FW-313-FI TO BECOME INOPERABLE. THE VOID OCCURRED AS A RESULT OF BACKLEAKAGE THROUGH A FW CHECK VALVE (FWV-43). AN EFW PUMP WAS STARTED IN ORDER TO ADD WATER TO THE LINE, THUS ELIMINATING THE VOID. FW-313-FI WAS DECLARED OPERABLE AT 1315 ON 10-3-83. FWV-43 WAS REWORKED ON 10-5-83. AN ENGINEERING EVALUATION CONCLUDED THAT FW-313-FI SHOULD BE REPLACED WITH A CONVENTIONAL FLOW INDICATOR DURING REFUEL.

[47] CRYSTAL RIVER 3 DOCKET 50-302 LER 84-010 REV 1
UPDATE ON REACTOR TRIP ON HIGH REACTOR COOLANT PRESSURE FOLLOWING LOSS OF NON-NUCLEAR INSTRUMENTATION.
EVENT DATE: 042684 REPORT DATE: 080884 NSSS: BW TYPE: PWR
VENDOR: DRESSER INDUSTRIAL VALVE & INST DIV
LAMBDA ELECTRONICS

(NSIC 190995) ON 4-26-84, AT 1039 'B' 'Y' NON-NUCLEAR INSTRUMENTATION (NNI-Y) POWER SUPPLY FAILED, THUS CAUSING ERRONEOUS SIGNALS TO BE SENT TO THE INTEGRATED CONTROL SYSTEM (ICS). THE ICS RAPIDLY REDUCED MAIN FEEDWATER FLOW TO THE 'B' SG CAUSING AN UNDERCOOLING TRANSIENT. THE REACTOR TRIPPED ON HIGH REACTOR COOLANT SYSTEM PRESSURE. THE MAIN STEAM ATMOSPHERIC DUMP VALVES (ADV) AND MAIN STEAM SAFETY VALVES (MSSV) SUBSEQUENTLY OPENED. ONE ADV AND SEVERAL MSSV'S FAILED TO RESEAT FOLLOWING THE REACTOR TRIP. DUE TO EXISTING SMALL SG TUBE LEAKAGE, A RADIOACTIVE RELEASE WAS MADE WHEN THE ADV'S AND MSSV'S OPENED. NEVERTHELESS, NO RADIOACTIVE LIMITS WERE EXCEEDED. THE ADV WAS MANUALLY ISOLATED. THE MSSV'S DID NOT RESEAT UNTIL SG PRESSURE WAS REDUCED SLIGHTLY. THE NNI-Y +24V DC POWER SUPPLY FAILED DUE TO THE FAILURE OF A CAPACITOR WITH THE WRONG RATINGS INSTALLED BY THE MANUFACTURER. CORRECTIVE ACTION INCLUDED REPLACEMENT OF THE FAILED CAPACITOR, INSPECTION OF THE -24V DC NNI-Y POWER SUPPLY CAPACITOR AND THE SPARE NNI-X POWER SUPPLY CAPACITORS, REPAIR OF THE FAILED ADV, ADJUSTMENT OF THE SETPOINT OF THE MSSV'S THAT FAILED TO RESEAT, AND INSTALLATION OF A REDUNDANT 24V DC POWER SUPPLY BY NO LATER THAN REFUEL V. THE CAPACITORS FOR THE INSTALLED REDUNDANT NNI-X POWER SUPPLIES WILL BE INSPECTED DURING THE NEXT OUTAGE OF SUFFICIENT DURATION.

[48] DAVIS-BESSE 1 DOCKET 50-346 LER 84-003 REV 1
UPDATE ON REACTOR TRIP DUE TO CLOSURE OF MAIN STEAM ISOLATION VALVE.
EVENT DATE: 030284 REPORT DATE: 072684 NSSS: BW TYPE: PWR
VENDOR: CONSOLIDATED CONTROLS CORP.
DRESSER INDUSTRIAL VALVE & INST DIV
LIMITORQUE CORP.

(NSIC 190804) AT 1221 HRS, THE #2 MAIN STEAM ISOLATION VALVE WENT CLOSED, ISOLATING THE STEAM SIDE OF STEAM GENERATOR #2. THIS WAS CAUSED BY AN UNDETECTED FAILED RELAY IN ONE SAFETY INSTRUMENTATION CHANNEL PLUS ROUTINE PLANT TESTING INVOLVING A SECOND SAFETY INSTRUMENTATION CHANNEL. THE CLOSURE OF MAIN STEAM ISOLATION VALVE #2 CAUSED FEEDWATER AND REACTOR COOLANT SYSTEM TEMPERATURE TRANSIENTS THAT LED TO A REACTOR TRIP ON HIGH FLUX. AFTER THE TRIP, ONE OF THE MAIN STEAM SAFETY VALVES DID NOT FULLY CLOSE. THIS CAUSED AN EXCESSIVE REACTOR COOLANT SYSTEM COOLDOWN RATE AND BY PROCEDURE STEAM GENERATOR #2 WAS ALLOWED TO BOIL DRY. AFTER THE FAILED MAIN STEAM SAFETY VALVE HAD BEEN REPLACED, WHILE

ATTEMPTING TO RESTORE LEVEL IN STEAM GENERATOR #2, THE AUXILIARY FEEDWATER VALVE TO STEAM GENERATOR #2 FAILED TO OPEN. IT WAS OPENED MANUALLY TO RESTORE LEVEL IN STEAM GENERATOR #2. IT WAS DISCOVERED LATER THAT A MAIN STEAM SAFETY VALVE ON STEAM GENERATOR #2 HAD FAILED TO LIFT. THE FAILED RELAY CIRCUIT WAS REPAIRED, THE SAFETY VALVE THAT FAILED TO CLOSE PROPERLY WAS REPLACED. THE SAFETY VALVE THAT FAILED TO LIFT HAS BEEN GAGGED AND WILL BE REPAIRED IN THE FUTURE. THE AUXILIARY FEEDWATER VALVE THAT FAILED TO OPEN HAD ITS TORQUE SWITCH SETTINGS CHANGED. ANALYSES HAVE SHOWN THAT NO DESIGN PARAMETERS WERE EXCEEDED ON THE REACTOR COOLANT SYSTEM OR THE STEAM GENERATOR.

[49] DAVIS-BESSE 1 DOCKET 50-346 LER 84-005 REV 1
UPDATE ON INOPERABLE CONTROL ROOM EMERGENCY VENTILATION SYSTEMS.
EVENT DATE: 050784 REPORT DATE: 082484 NSSS: BW TYPE: PWR

(NSIC 191258) DURING A ROUTINE MONTHLY SURVEILLANCE TEST, IT WAS FOUND THAT BOTH CONTROL ROOM EMERGENCY VENTILATION CHILLER CONTROL POWER SWITCHES WERE IN THE 'OFF' POSITION. THIS RENDERED THE COOLING FUNCTION FOR BOTH CONTROL ROOM EMERGENCY VENTILATION SYSTEM TRAINS INOPERABLE. THE CAUSE IS PERSONNEL ERROR OF UNDETERMINED ORIGIN. IT WAS DETERMINED BY INTERVIEWS AND WALK-THROUGHS WITH THE OPERATORS WHO RUN THE SURVEILLANCE TEST AND BY CHECKING DATES OF PREVIOUS SURVEILLANCE TESTS THAT THE SWITCH FOR UNIT 2 WAS IN ITS PROPER POSITION ON APR 23, 1984, AFTER PREVENTATIVE MAINTENANCE ACTIVITIES. ALSO DURING THE INVESTIGATION, IT WAS DETERMINED THAT THE ADMINISTRATIVE CONTROL OF RECENT PREVENTATIVE MAINTENANCE WORK ORDERS WAS INADEQUATE IN NOT PROPERLY ADDRESSING THE EFFECT OF THESE SWITCHES ON SYSTEM OPERABILITY. THE SWITCHES AND PANELS WERE NOT LABELED CORRECTLY. AS CORRECTIVE ACION, LABELS WERE PLACED ABOVE THE SWITCHES TO MORE CLEARLY IDENTIFY THEM AND TO REQUIRE THAT THE SHIFT SUPERVISOR IS NOTIFIED PRIOR TO TURNING OFF. THE PANELS ON WHICH THE SWITCHES ARE LOCATED WERE MORE CLEARLY LABELED. THE PREVENTATIVE MAINTENANCE WORK ORDER WAS MODIFIED TO IDENTIFY THAT IT MADE THE SYSTEM INOPERABLE, AND TO REQUIRE THAT THE SWITCHES BE VERIFIED TO BE IN THE 'ON' POSITION AFTER THE WORK IS PERFORMED. THE SURVEILLANCE TEST WAS MODIFIED TO FURTHER IDENTIFY THE SWITCHES AND TO NOTE THE EFFECT OF THESE SWITCHES ON SYSTEM OPERABILITY.

[50] DIABLO CANYON 1 DOCKET 50-275 LER 84-021
FEEDWATER FLOW CONTROL VALVE FAILS OPEN.
EVENT DATE: 072084 REPORT DATE: 081784 NSSS: WE TYPE: PWR
VENDOR: ITT GRINNELL

(NSIC 191251) WHILE IN MODE 3 (HOT STANDBY), THE RPS ACTUATED (REACTOR TRIP BREAKERS OPENED) DUE TO A COINCIDENCE OF SG 1-3 LOW LEVEL AND STEAM FLOW/FEED FLOW MISMATCH. ALL REQUIRED EQUIPMENT RESPONDED AUTOMATICALLY. FEEDWATER FLOW CHANNELS FOR SG 1-3 AND SG 1-4 WERE OUT OF SERVICE, THUS THE STEAM FLOW/FEED FLOW MISMATCH BISTABLES WERE TRIPPED FOR SG 1-3 AND SG 1-4. SG 1-4'S LEVEL CONTROL VALVE LCV-113 FAILED OPEN. THE OPERATOR ATTEMPTED TO MAINTAIN WATER LEVEL IN SG 1-3 AND SG 1-4 BY CYCLING THE AUX FEED PUMP. AFTER 65 MINS OF OPERATION THE WATER LEVEL IN SG 1-3 DROPPED TO 25% GENERATING A LOW LEVEL SIGNAL. WATER LEVEL WAS RETURNED TO NORMAL, THE FAILED VALVE OPERATOR WAS REPLACED WITH A SPARE, TESTED SATISFACTORILY, AND RETURNED TO SERVICE. THE REACTOR TRIP BREAKERS WERE CLOSED. THE FEEDWATER FLOW CHANNELS HAVE BEEN RETURNED TO OPERATION. THE FAILED VALVE OPERATOR WAS REPAIRED BY THE MANUFACTURER AND RETURNED TO THE PLANT.

[51] DIABLO CANYON 1 DOCKET 50-275 LER 84-023
DIESEL GENERATORS AUTOSTART.
EVENT DATE: 073084 REPORT DATE: 082984 NSSS: WE TYPE: PWR

(NSIC 191294) WHILE IN MODE 3 (HOT STANDBY), DIESEL GENERATORS 1-1, 1-2 AND 1-3 STARTED AUTOMATICALLY IN RESPONSE TO A LOSS OF STARTUP BUS VOLTAGE CAUSED BY THE

ISOLATION OF THE PLANT FROM 230 KV OFFSITE STARTUP POWER. AUTOMATIC FUNCTIONS PERFORMED AS DESIGNED. STARTUP POWER WAS RESTORED WITHIN 45 SECONDS, THE DG'S WERE SECURED AND RETURNED TO NORMAL STANDBY CONDITION, AND ALL OTHER AFFECTED SYSTEMS WERE RETURNED TO NORMAL. A FOUR HOUR SIGNIFICANT EVENT (DG AUTOSTART) REPORT WAS MADE TO NRC BETHESDA. THIS EVENT WAS CAUSED BY A STAFF TECHNICIAN INADVERTENTLY ISOLATING THE PLANT FROM 230 KV OFFSITE POWER.

[52] DIABLO CANYON 1 DOCKET 50-275 LER 84-024
TECH SPEC SURVEILLANCE NOT PERFORMED WITHIN TIME PERIOD.
EVENT DATE: 081084 REPORT DATE: 091084 NSSS: WE TYPE: PWR

(NSIC 191350) ON AUG 10, 1984 WITH THE REACTOR IN MODE 3 (HOT STANDBY) IT WAS DISCOVERED THAT A SURVEILLANCE REQUIREMENT TO FUNCTIONALLY TEST THE FIRE DETECTION SYSTEM SUPERVISORY CIRCUITRY WAS NOT PERFORMED WITHIN THE TIME PERIOD OF 6 MONTHS AS REQUIRED BY TECH SPECS. THE SURVEILLANCE WAS SATISFACTORILY PERFORMED ON AUG 11, 1984. CORRECTIVE ACTIONS INCLUDE AN INDEPENDENT REVIEW OF THE INSTRUMENTATION SURVEILLANCE SCHEDULING COMPUTER PROGRAM AND IMPROVED ADMINISTRATIVE CONTROLS GOVERNING PROPOSED CHANGES TO THE SCHEDULING PROGRAM.

[53] DIABLO CANYON 1 DOCKET 50-275 LER 84-025
INOPERABLE RADIATION MONITORS 14A AND 14B.
EVENT DATE: 082684 REPORT DATE: 092584 NSSS: WE TYPE: PWR

(NSIC 191351) WHILE IN MODE 5, COLD SHUTDOWN, THE CONTAINMENT PURGE SYSTEM NOBLE GAS ACTIVITY MONITORS, RM-14A AND 14B, WERE RENDERED INOPERABLE. WHILE REMOVING RM-14A FROM SERVICE FOR A MODIFICATION, PERSONNEL INADVERTENTLY BLOCKED THE CONTAINMENT ISOLATION SIGNAL CAPABILITY FROM RM-14B. RADIATION MONITOR 14B WAS SUBSEQUENTLY RETURNED TO SERVICE. A FOUR HOUR SIGNIFICANT EVENT REPORT WAS MADE TO NRC HEADQUARTERS IN ACCORDANCE WITH 10 CFR 50.72 (B)(2)(III)(C).

[54] DRESDEN 1 DOCKET 50-010 LER 84-001
HIGH ACTIVITY IN SPHERE SERVICE WATER DISCHARGE.
EVENT DATE: 071784 REPORT DATE: 081384 NSSS: GE TYPE: BWR

(NSIC 191328) DURING UNIT SHUTDOWN, AN UNPLANNED RADIOACTIVE RELEASE TO THE UNIT 1 DISCHARGE CANAL WAS DETERMINED TO HAVE OCCURRED BASED UPON SAMPLE RESULTS AND THE RESULTING SPIKE ON THE RECORDER FOR THE UNIT 1 SERVICE WATER MONITOR. THE MAXIMUM CONCENTRATION OF ACTIVITY IN THE DISCHARGING CANAL, CALCULATED DURING THE MONITOR SPIKE, WAS 250 PCI/1; EXCEEDING THE TECH SPECS LIMIT OF 100 PCI/1. SAFETY SIGNIFICANCE WAS MINIMAL BECAUSE THE ACTIVITY RELEASED WAS WELL BELOW THE LIMITS SET IN 10 CFR 20, APPENDIX B, TABLE II, COLUMN 2. THE CAUSE OF THE EVENT WAS DETERMINED TO BE STAGNANT CONTAMINATED WATER AND CORROSION PRODUCTS LOCATED IN THE SPHERE SERVICE WATER LINES WHICH WERE FLUSHED OUT INTO THE DISCHARGE CANAL, WHEN THE SERVICE WATER TO THE SPHERE HEATING AND COOLING SETS WERE UNISOLATED FOR THE 1ST TIME IN 5 YEARS. TWO OF THE CORRECTIVE ACTIONS TAKEN WERE 1) WRITING OPERATING ORDER #27-84 REQUIRING SAMPLING OF SYSTEMS ISOLATED FOR MORE THAN A MONTH PRIOR TO UNISOLATING, AND 2) PERFORMING MODIFICATION 12-1-84-11 WHICH ALLOWS SPHERE CLOSED COOLING WATER TO BE USED INSTEAD OF SERVICE WATER TO SUPPLY COOLING WATER TO THE HEATING AND COOLING SETS.

[55] DRESDEN 3 DOCKET 50-249 LER 83-035 REV 1
UPDATE ON RECIRCULATION PUMP DRAIN LINE LEAKS.
EVENT DATE: 100483 REPORT DATE: 090484 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CO.

(NSIC 191326) DURING UNIT 3 DRYWELL INSPECTION, WATER WAS OBSERVED LEAKING FROM THE 'A' RECIRC PUMP BOWL DRAIN. DURING NORMAL UNIT OPERATION PRIOR TO SHUTDOWN

FOR REFUELING NO SIGNIFICANT INCREASE WAS NOTED IN DRYWELL LEAKAGE. ALL LEAKAGE WAS CONTAINED WITHIN THE DRYWELL. FLOOR AND EQUIPMENT DRAIN LEAKAGE WAS WITHIN TECH SPEC LIMITS. THE LAST SIMILAR PREVIOUS OCCURRENCE WAS REPORTED ON RO 82-19 ON DOCKET 50-249. A METALLURGICAL INVESTIGATION WAS CONDUCTED TO DETERMINE THE CAUSE OF LEAKAGE IN THE SOCKET WELD TAKEN FROM THE 'A' RECIRC PUMP BOWL DRAIN LINE. BASED ON THE EXAMINATION, THE MOST PROBABLE CAUSE FOR THE LEAK WAS THE RESULT OF THE SOCKET WELD JOINT BOTTOMING OUT. THERE WAS NO EVIDENCE OF A FATIGUE INDUCED FAILURE, OR OF INTERGRANULAR STRESS CORROSION CRACKING.

[56] DRESDEN 3 DOCKET 50-249 LER 84-008
DRYWELL PRESSURE CONTROL VALVE CLOSED.
EVENT DATE: 080484 REPORT DATE: 082284 NSSS: GE TYPE: BWR

(NSIC 191240) DURING NORMAL OPERATION THE UNIT OPERATOR OPENED UNIT 3 1601-58 VALVE TO HELP MAINTAIN DRYWELL TO TORUS DIFFERENTIAL PRESSURE. HOWEVER, THE DIFFERENTIAL PRESSURE FELL BELOW 1 PSID (TECH SPEC 3.7.A). THIS SLIGHT DROP IN DIFFERENTIAL PRESSURE WAS OF MINIMAL SAFETY SIGNIFICANCE; THE OTHER ECCS SYSTEMS WERE UNAFFECTED. THIS WAS THE FIRST OCCURRENCE OF THIS TYPE AT DRESDEN STATION. THE CAUSE WAS ATTRIBUTED TO A CLOSED PRESSURE CONTROL VALVE (8599-538). THE VALVE WAS CLOSED DUE TO IMPROPER COMPLETION OF PROCEDURE 1600-15 (DRYWELL-TORUS BACKPUMP DIFFERENTIAL PRESSURE), WHICH WAS USED AS A GUIDELINE, UNDER WORK REQUEST D37200 (REPAIR PRESSURE CONTROLLER). THE INSTRUMENT MAINTENANCE PERSONNEL FAILED TO REQUEST THAT THE OPERATOR VALVE IN THE PRESSURE CONTROL VALVE UPON COMPLETION OF HIS WORK. THE UNIT 3 PRESSURE CONTROL VALVE WAS REOPENED AND THE DRYWELL TO TORUS DIFFERENTIAL PRESSURE WAS RESTORED TO GREATER THAN 1 PSID. THE INSTRUMENT MAINTENANCE PERSONNEL WAS COUNSELLED ON THE IMPORTANCE OF FOLLOWING PROCEDURES EVEN WHEN PROCEDURES ARE USED AS GUIDELINES.

[57] DRESDEN 3 DOCKET 50-249 LER 84-009
TORUS HAS HIGH OXYGEN CONCENTRATION.
EVENT DATE: 080884 REPORT DATE: 090584 NSSS: GE TYPE: BWR
VENDOR: PRATT, HENRY COMPANY

(NSIC 191289) WITH UNIT 3 AT 91% AND DURING NORMAL OPERATION, AN OPERATOR RECEIVED AN ALARM INDICATING HIGH 02 CONCENTRATION IN THE TORUS. IT WAS OBSERVED THAT THIS CONCENTRATION HAD REACHED 4%. THE PROBLEM WAS CAUSED BY THE FAILURE OF THE TORUS TO REACTOR BLDG VACUUM BREAKER 3-1601-20B. THE FAILURE WAS ATTRIBUTED TO THE SHEARING OF THE MOUNTING BOLTS WHICH CAUSED THE VALVE OPERATOR TO BECOME DISORIENTED FROM THE VALVE BODY LEAVING THE VALVE OPEN SLIGHTLY AND DAMAGING THE AIR LINES TO THE OPERATOR. THE MOUNTING BOLTS WERE REMOVED, NEW BOLTS WERE INSTALLED AND THE DAMAGED AIR LINES WERE REPAIRED. THE VALVE WAS TESTED AND OPERATED SUCCESSFULLY.

[58] DRESDEN 3 DOCKET 50-249 LER 84-010
REACTOR SCRAM ON LOW WATER LEVEL.
EVENT DATE: 082184 REPORT DATE: 091084 NSSS: GE TYPE: BWR
VENDOR: CRANE COMPANY

(NSIC 191338) DURING NORMAL OPERATION, THE 'A' FEEDWATER REGULATING VALVE OPERATOR VIBRATED LOOSE FROM THE VALVE STEM COUPLING. THE VALVE DISC FAILED IN THE CLOSED DIRECTION, CAUSING THE REACTOR TO SCRAM ON LOW WATER LEVEL. SAFETY SIGNIFICANCE WAS MINIMAL SINCE ALL EMERGENCY SYSTEMS OPERATED AS DESIGNED. PREVIOUS SIMILAR OCCURRENCE REPORTED BY R.O. 84-09 ON DOCKET 50-237. THE OPERATOR AND VALVE STEM WERE RECONNECTED AND HOLES WERE DRILLED INTO THE COUPLING BLOCK AND LOCKNUTS SO SET SCREWS COULD BE PLACED TO SECURE THE VALVE STEM AND VALVE OPERATOR TO THE COUPLING BLOCK.

[59] DRESDEN 3 DOCKET 50-249 LER 84-011
REACTOR SCRAM DUE TO OPERATOR BUMPING MODE SWITCH.
EVENT DATE: 082284 REPORT DATE: 091984 NSSS: GE TYPE: BWR

(NSIC 191339) WHILE AT 0% POWER AND DURING THE ROD WORTH MINIMIZER (RWM) PRE-START-UP SURVEILLANCE, THE REACTOR MODE SWITCH WAS ACCIDENTLY BUMPED TO THE SHUTDOWN POSITION. WHILE VERIFYING THAT THE MODE SWITCH WAS IN THE REFUEL POSITION, THE OPERATOR MOVED THE SWITCH ENOUGH TO CAUSE SOME SHUTDOWN CONTACTS TO BE PICKED UP. THIS ACTION CAUSED A REACTOR SCRAM. GIVEN THE CLOSE PROXIMITY OF THE SWITCH'S REFUEL AND SHUTDOWN POSITIONS THE CORRECTIVE ACTION WAS TO INSTRUCT THE OPERATOR OF THE IMPORTANCE OF USING CAUTION WHEN ADJUSTING THE REACTOR MODE SWITCH.

[60] DRESDEN 3 DOCKET 50-249 LER 84-012
REACTOR SCRAM ON IRM HIGH-HIGH WITH APRM DOWNSCALE.
EVENT DATE: 082384 REPORT DATE: 091984 NSSS: GE TYPE: BWR

(NSIC 191340) DURING A MANUAL POWER REDUCTION, THE UNIT OPERATOR FAILED TO INSERT THE IRM'S IN A TIMELY MANNER. WHEN THE IRM'S WERE INSERTED, THE UNIT SCRAMMED ON IRM HIGH-HIGH WITH COMPANION APRM DOWNSCALE. SAFETY SIGNIFICANCE WAS MINIMAL, AS THE REACTOR PROTECTION SYSTEM WORKED AS DESIGNED. THIS WAS THE FIRST REPORTABLE OCCURRENCE OF THIS TYPE AT DRESDEN STATION. A PROFESSIONAL INVESTIGATION COMMITTEE WILL BE CONVENED TO INVESTIGATE THE EVENT, DETERMINE THE ROOT CAUSE(S) AND APPROPRIATE CORRECTIVE ACTION(S). WHEN THIS COMMITTEE'S FINDINGS ARE ISSUED, A SUPPLEMENTAL REPORT WILL BE SUBMITTED.

[61] FARLEY 1 DOCKET 50-348 LER 84-015
HOURLY FIRE WATCH PATROL POSTED INSTEAD OF CONTINUOUS FIRE WATCH.
EVENT DATE: 012184 REPORT DATE: 090784 NSSS: WE TYPE: PWR

(NSIC 191309) ON 8-8-84, DURING THE PERFORMANCE OF AN OPERATIONS QUALITY ASSURANCE AUDIT, IT WAS DETERMINED THAT IN 2 CASES AN HOURLY FIRE WATCH PATROL HAD BEEN POSTED INSTEAD OF A CONTINUOUS FIRE WATCH AS REQUIRED BY TECH SPEC 3.7.11.2. IN ONE CASE, ON 1-21-84, SPRINKLER SYSTEM 1A-51 ON UNIT 1 WAS PLACED IN OVERRIDE TO ALLOW OPEN FLAME PERMIT WORK IN THE AREA. THE OTHER CASE OCCURRED ON 2-2-84 WITH UNIT 2 IN MODE 1 AT 100% POWER, WHEN SPRINKLER SYSTEM 2A-27 WAS PLACED IN OVERRIDE TO FACILITATE CONSTRUCTION ACTIVITIES. IN BOTH CASES, A CONTINUOUS FIRE WATCH HAD NOT BEEN ESTABLISHED WITHIN 1 HR AS REQUIRED BY TECH SPECS. AN HOURLY FIRE WATCH PATROL HAD BEEN POSTED INSTEAD. THESE EVENTS WERE CAUSED BY PERSONNEL ERRORS IN THAT THE SHIFT FOREMEN DID NOT DETERMINE FIRE WATCH REQUIREMENTS PROPERLY WHEN A FIRE PROTECTION SYSTEM WAS INOPERABLE. THE INDIVIDUALS INVOLVED HAVE BEEN REINSTRUCTED. TO PREVENT FUTURE OCCURRENCE, ADMINISTRATIVE PROCEDURES ARE BEING CHANGED TO PROVIDE MORE SPECIFIC GUIDANCE IN DETERMINING FIRE WATCH REQUIREMENTS. ALSO, AN OPERATIONS MEMO HAS BEEN ISSUED TO FURTHER DEFINE FIRE WATCH REQUIREMENTS.

[62] FARLEY 1 DOCKET 50-348 LER 84-014
OVERTEMPERATURE-DELTA-T CIRCUIT INOPERABLE.
EVENT DATE: 080484 REPORT DATE: 090484 NSSS: WE TYPE: PWR

(NSIC 191308) AT 0814 ON 8-5-84, IT WAS RECOGNIZED THAT THE POTENTIOMETERS FOR THE INPUT FROM POWER RANGE CHANNEL NI-43 TO THE OVERTEMPERATURE-DELTA-T (OT-DELTA-T) CIRCUIT HAD NOT BEEN ADJUSTED ON 8-4-84 FOLLOWING RESCALING OF NI-43. THE POTENTIOMETERS WERE ADJUSTED AND THE OT-DELTA-T CIRCUIT WAS DECLARED OPERABLE AS OF 1135 ON 8-5-84.

[63] FARLEY 1 DOCKET 50-348 LER 84-016
INADEQUATE SURVEILLANCE PROCEDURE OF RCDT DISCHARGE CONTAINMENT ISOLATION VALVE.
EVENT DATE: 081584 REPORT DATE: 091484 NSSS: WE TYPE: PWR

(NSIC 191383) ON 8-15-84, IT WAS DETERMINED THAT THE SURVEILLANCE TEST PROCEDURE FOR MEASURING THE STROKE TIME OF LCV-1003 (REACTOR COOLANT DRAIN TANK DISCHARGE CONTAINMENT ISOLATION VALVE) MIGHT NOT BE ADEQUATE. THE SURVEILLANCE TEST PROCEDURE WAS CHANGED TO CORRECTLY VERIFY THE STROKE TIME AND LCV-1003 WAS SUCCESSFULLY TESTED AND DETERMINED OPERABLE.

[64] FARLEY 1 DOCKET 50-348 LER 84-017
1A MAIN FEEDWATER REGULATING VALVE AUTOMATIC ISOLATION CAPABILITY INOPERABLE.
EVENT DATE: 081584 REPORT DATE: 091484 NSSS: WE TYPE: PWR

(NSIC 191384) AT 2210 ON 8-15-84, THE 1A MAIN FEEDWATER REGULATING VALVE WAS PLACED ON ITS MANUAL JACK FOR REPAIR OF A LEAKING DIAPHRAGM. THIS RENDERED BOTH CHANNELS OF FEEDWATER ISOLATION INOPERABLE TO THAT VALVE EXCEEDING THE ALLOWABLE ONE CHANNEL INOPERABLE ACTION STATEMENT OF TECH SPEC 3.3.2. THE DIAPHRAGM WAS REPLACED AND THE VALVE WAS RETURNED TO SERVICE AT 0015 ON 8-16-84. TECH SPEC 3.0.3 ACTION STATEMENT REQUIREMENTS WERE MET.

[65] FITZPATRICK DOCKET 50-333 LER 84-017
FIRE WATCH MISSED.
EVENT DATE: 072084 REPORT DATE: 082084 NSSS: GE TYPE: BWR

(NSIC 191306) DURING POWER OPERATION ON 7-6-84, THE REMOTE ALARM FUNCTION FOR THE EAST CABLE TUNNEL SMOKE DETECTION SYSTEM WAS DECLARED INOPERABLE DUE TO A FAULTY TRANSMITTER. AN HOURLY PATROLLING FIRE WATCH WAS ESTABLISHED PER TECH SPEC 3.12.E.1.B. ON 7-20-84 THE HOURLY FIRE WATCH DID NOT PATROL THE EAST CABLE TUNNEL BETWEEN THE HOURS OF 0200 AND 0400. HOURLY FIRE PATROLS WERE CONDUCTED PRIOR TO AND FOLLOWING THE MISSED 2 HR PERIOD. DISCIPLINARY ACTION WAS ADMINISTERED TO THE PERSON ASSIGNED TO CONDUCT THE HOURLY FIRE PATROL. THE REMOTE ALARM FUNCTION WAS REPAIRED ON 8-8-84. DURING A MANAGEMENT REVIEW OF THE ABOVE INCIDENT, IT WAS ALSO NOTED THAT A SPECIAL REPORT REQUIRED BY TECH SPEC 3.12.E.2 AND 6.9.B.2, REQUIRED SUBMITTAL FOR THE INOPERATIVE SMOKE DETECTION SYSTEM.

[66] FT. CALHOUN 1 DOCKET 50-285 LER 84-011
RADIATION MONITOR DISCONNECTED.
EVENT DATE: 072084 REPORT DATE: 081984 NSSS: CE TYPE: PWR

(NSIC 191253) ON 7-20-84, AT APPROX 0830, A FLEXIBLE STAINLESS STEEL WOVEN CONNECTION FROM THE AUX BLDG VENTILATION DISCHARGE DUCT TO RADIATION MONITORS RM-061/062 (STACK PARTICULATE AND STACK GASEOUS MONITORS) WAS FOUND DISCONNECTED BY PERSONNEL CONDUCTING GENERAL SURVEILLANCE IN THE AREA. A CONTAINMENT PRESSURE REDUCTION WAS IN PROGRESS AT THE TIME OF DISCOVERY. TECH SPEC 2.9(2)E REQUIRES CONTINUOUS MONITORING OF THIS RELEASE. HOWEVER, WITH RM-061/062 DISCONNECTED, NO GASEOUS OR PARTICULATE MONITORING WAS PROVIDED. THE CONTROL ROOM WAS NOTIFIED AND THE CONNECTOR WAS REATTACHED AT APPROX 0845 BY OPERATIONS PERSONNEL. NO APPRECIABLE CHANGES IN ACTIVITY WERE NOTICED FOLLOWING THE RECONNECTION OF RM-061/062 TO ITS NORMAL SUPPLY. TO PREVENT FUTURE ACCIDENTAL DISCONNECTIONS OF THESE MONITORS, THE LICENSEE HAS SECURELY FASTENED THE CONNECTOR TO ITS SUPPLY PIPING.

[67] FT. CALHOUN 1 DOCKET 50-285 LER 84-018
VIAS ACTUATION.
EVENT DATE: 080784 REPORT DATE: 090584 NSSS: CE TYPE: PWR

(NSIC 191356) AN UNPLANNED ACTUATION OF THE VENTILATION ISOLATION ACTUATION SIGNAL (VIAS) OCCURRED AT 1105 ON 8-7-84, DURING THE ROUTINE WEEKLY REPLACEMENT OF AN IODINE-COLLECTION CARTRIDGE ON RM-060, THE VENTILATION DISCHARGE DUCT IODINE MONITOR. AFTER COMPLETION OF THE FILTER REPLACEMENT, VIAS WAS RESET AND NO FURTHER ALARMS OCCURRED. NO EQUIPMENT MALFUNCTIONS WERE NOTED. THE CAUSE OF THE ACTUATION WAS THE FAILURE OF THE CHEMISTRY TECHNICIANS TO NOTIFY THE CONTROL ROOM PRIOR TO FILTER REPLACEMENT. SINCE RM-060 HAD NOT BEEN TAKEN OUT OF SERVICE DURING FILTER REPLACEMENT, EXPOSURE OF THE MONITOR TO UNSHIELDED BACKGROUND RADIATION RESULTED IN VIAS. THE IODINE-COLLECTION CARTRIDGE SHOWED NO IODINE ACCUMULATION, ALL GASEOUS CONTAMINATION CONCENTRATIONS WERE LESS THAN THE MINIMUM DETECTABLE ACTIVITIES. TO PREVENT FUTURE UNPLANNED VIAS ACTUATIONS, AN OPERATIONS MEMORANDUM HAS BEEN WRITTEN REQUIRING RM-060 TO BE TAKEN OUT OF SERVICE DURING FILTER REPLACEMENT. ALL PLANT CHEMISTS WERE REINSTRUCTED OF THE IMPORTANCE OF CONTROL ROOM NOTIFICATION PRIOR TO EQUIPMENT MANIPULATION.

[68] GINNA DOCKET 50-244 LER 84-009
INADVERTENT START OF THE 'A' DIESEL GENERATOR.
EVENT DATE: 081784 REPORT DATE: 091484 NSSS: WE TYPE: PWR
VENDOR: ELECTRO-MECHANICS

(NSIC 191335) ON AUG 17, 1984, DURING THE MONTHLY TESTING OF THE UNDERVOLTAGE PROTECTION SYSTEM ON SAFEGUARD BUS 18, SWITCHES S5 AND S6 WERE PLACED IN THE TEST POSITION IN ACCORDANCE WITH THE APPLICABLE STEPS IN PROCEDURE PT-9.1. UPON PLACING THESE SWITCHES IN THE TEST POSITION THE 'A' DG AUTOMATICALLY STARTED. THE CAUSE OF THE EVENT HAS BEEN ATTRIBUTED TO AN INTERMITTENT CONTACT IN SWITCH S5. THE INTERMITTENT CONTACT WAS APPARENTLY CAUSED BY A SMALL AMOUNT OF OXIDATION IN THE SWITCH. THE FAILURE ONLY OCCURRED WHEN THE SWITCHES WERE IN THE TEST MODE AND DID NOT AFFECT THE NORMAL OPERATION OF THE SYSTEM. THE FAILURE WAS IN THE SAFE DIRECTION AND AT NO TIME WAS THE DG OR SAFEGUARD BUS INOPERABLE.

[69] GRAND GULF 1 DOCKET 50-416 LER 83-082 REV 1
UPDATE ON DIESEL GENERATOR FAILURE DURING TESTING.
EVENT DATE: 071783 REPORT DATE: 090983 NSSS: GE TYPE: BWR
VENDOR: DE LAVAL TURBINE, INC.

(NSIC 191235) ON 7-17-83, WHILE PERFORMING THE 18 MONTH DIV I STANDBY DG FUNCTIONAL TEST (24 HR TEST RUN OF TECH SPEC 4.8.1.1.2.D.9) THE STARTING AIR VALVE FOR THE NO. 8 RIGHT CYLINDER FAILED. THE VALVE FAILED APPROX 16 HRS INTO THE TEST. ON JULY 24, APPROX 6 HRS INTO A DIESEL TEST RUN, THE NO. 1 LEFT BANK CYLINDER AIR START VALVE ON THE DIV I DIESEL ALSO FAILED. THIS IS REPORTED IN ACCORDANCE WITH TECH SPEC 4.8.1.1.3 AND PURSUANT TO TECH SPEC 6.9.1.12.I. THE CAUSE OF THE VALVE FAILURES IS ATTRIBUTED TO THE CONTAMINATION OF ATMOSPHERIC VENT LINES AND MALFUNCTIONS OF THE STARTING AIR DISTRIBUTOR. DAMAGED VALVES AND THE STARTING AIR DISTRIBUTOR WERE REPLACED. A PREVENTATIVE MAINTENANCE PROGRAM WAS ESTABLISHED TO CHECK AND REPLACE AIR DISTRIBUTOR FILTERS. THIS IS CONSIDERED A FINAL REPORT.

[70] GRAND GULF 1 DOCKET 50-416 LER 84-003S
DIESEL GENERATOR TRIPS.
EVENT DATE: 011284 REPORT DATE: 021384 NSSS: GE TYPE: BWR

(NSIC 190387) CONTROL RECTIFIER DIODE FAILED. STANDBY DG 12 TRIPPED ON REVERSE POWER WHILE RUNNING IN PARALLEL WITH OFFSITE POWER DURING A RETEST FOLLOWING MAINTENANCE. A CONTROL RECTIFIER DIODE IN THE VOLTAGE REGULATOR CIRCUIT

MALFUNCTIONED CAUSING THE DG OUTPUT VOLTAGE TO DROP. SINCE THE DIESEL GENERATOR WAS RUNNING PARALLEL WITH OFFSITE POWER, THIS VOLTAGE DROP CAUSED THE GENERATOR TO TRIP ON REVERSE POWER. IN THE EMERGENCY OPERATING MODE THE REVERSE POWER TRIP IS BYPASSED. IN ADDITION, THE DG WOULD NOT BE IN PARALLEL WITH OFFSITE POWER, SO A VOLTAGE DROP WOULD NOT HAVE CAUSED A REVERSE POWER CONDITION. THEREFORE, THIS IS REPORTED PURSUANT TO REG GUIDE 1.108 AND TECH SPEC 4.8.1.1.3 AS AN INVALID FAILURE. THE VOLTAGE REGULATOR CIRCUIT WAS SWITCHED TO THE STANDBY EXCITATION CONTROL RECTIFIER AND THE RETEST CONTINUED.

[71] GRAND GULF 1 DOCKET 50-416 LER 84-024 REV 1
UPDATE ON FORCED SHUTDOWN DUE TO RHR PIPE CRACKS AND SUPPORT DEFICIENCIES.
EVENT DATE: 050284 REPORT DATE: 080884 NSSS: GE TYPE: BWR
VENDOR: BECHTEL CORP.
TEXAS PIPE AND BENDING, INC.

(NSIC 191273) A PLANT SHUTDOWN WAS COMPLETED ON 5-2-84, AS REQUIRED BY THE GGNS TECH SPECS DUE TO THE INOPERABILITY OF BOTH INDEPENDENT CONTAINMENT SPRAY LOOPS OF THE RHR SYSTEM. THE RHR B LOOP WAS DECLARED INOPERABLE ON 4-30, WHEN 2 CRACKS WERE FOUND IN A 3-INCH DIAMETER BRANCH PIPE OFF THE MAIN RHR B LOOP HEADER. ON 5-2, PIPE SUPPORT DEFICIENCIES RESULTED IN BOTH RHR LOOPS BEING DECLARED INOPERABLE AND THE SUBSEQUENT SHUTDOWN. THE EVENT WAS DECLARED AN UNUSUAL EVENT AT 1800 HRS ON 5-2 AND THE NRC WAS NOTIFIED AT 1822 HRS.

[72] GRAND GULF 1 DOCKET 50-416 LER 84-035
RADIOACTIVE GASEOUS WASTE SURVEILLANCE INADEQUATE.
EVENT DATE: 051984 REPORT DATE: 082484 NSSS: GE TYPE: BWR

(NSIC 191231) CHEMISTRY PERSONNEL DISCOVERED THAT ANALYSES PERFORMED ON RADIOACTIVE GASEOUS WASTE SAMPLES TAKEN ON MAY 19, 1984, WERE INADEQUATE CAUSING THE SURVEILLANCE TEST FREQUENCY TO BE EXCEEDED. THE ANALYSES WERE NOT PERFORMED ON SEPARATE SPECTRA WHICH IN EFFECT VOIDED THE TESTS. THE RESPONSIBLE CHEMIST APPARENTLY PRESSED THE WRONG COMPUTER KEY FOR THE SPECTRA. COMPUTER SOFTWARE CHANGES WILL BE MADE TO MINIMIZE RECURRENCE.

[73] HATCH 1 DOCKET 50-321 LER 84-015
UNPLANNED REACTOR SCRAM DUE TO LOW REACTOR WATER LEVEL.
EVENT DATE: 080384 REPORT DATE: 082984 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CO.
TARGET ROCK CORP.

(NSIC 191372) ON 8-3-84 AT 2146 CDT, WITH THE REACTOR MODE SWITCH IN THE RUN POSITION AND REACTOR POWER AT 2307 MWT (APPROX 95% POWER), UNIT 1 RECEIVED A REACTOR SCRAM ON TURBINE CONTROL VALVE (TCV) FAST CLOSURE SUBSEQUENT TO A GENERATOR LOAD REJECTION. THE GENERATOR LOAD REJECTION OCCURRED WHEN A DIFFERENTIAL OVERCURRENT RELAY ACTUATED DUE TO AN INTERNAL FAULT (WHEN THE INSULATION BETWEEN THE #2 AND #3 WINDINGS FAILED) IN UNIT AUX TRANSFORMER 1B. THE DIFFERENTIAL OVERCURRENT RELAY TRIPPED ON AUX LOCKOUT RELAY WHICH OPENED THE GENERATOR OUTPUT BREAKERS. NO ACTUAL OR POTENTIAL SAFETY CONSEQUENCES OR IMPLICATIONS RESULTED FROM THIS EVENT. THIS EVENT HAD NO IMPACT ON ANY OTHER UNIT 1 SYSTEM OR ON UNIT 2. THIS IS A NON-REPETITIVE EVENT. THE CAUSE OF THESE EVENTS COMPONENT FAILURE.

[74] HATCH 1 DOCKET 50-321 LER 84-010
ESF SYSTEM ACTUATION DUE TO HIGH AMBIENT TEMPERATURE.
EVENT DATE: 082084 REPORT DATE: 091984 NSSS: GE TYPE: BWR

(NSIC 191371) ON 8-20-84, AT 0907 CDT AND ON 8-22-84, AT 2136 CDT, THE REACTOR

WATER CLEAN-UP (RWCU) INBOARD ISOLATION VALVE (G31-F001) CLOSED DUE TO A HIGH AMBIENT RWCU TEMPERATURE TRIP SIGNAL. SINCE THIS VALVE IS A PRIMARY CONTAINMENT ISOLATION VALVE (PCIS), ITS ISOLATION CONSTITUTES AN ACTUATION OF AN ENGINEERED SAFETY FEATURE (ESF). IN BOTH EVENTS THE HIGH AMBIENT TEMPERATURE IN THE RWCU ROOM WAS REDUCED BELOW THE TRIP SETPOINT AND THE PCIS VALVE G31-F001 WAS RETURNED TO SERVICE.

[75] HATCH 1 DOCKET 50-321 LER 84-018
INOPERABLE FIRE BARRIER PENETRATION SEALS.
EVENT DATE: 082484 REPORT DATE: 092484 NSSS: GE TYPE: BWR

(NSIC 191373) ON 8-24-84, DURING A FIRE BARRIER PENETRATION WALKDOWN, CONTRACT PERSONNEL NOTED THAT NUMEROUS FIRE BARRIER PENETRATION SEALS FOR UNIT 1 AND UNIT 2 WERE NOT FUNCTIONAL AS REQUIRED BY UNIT 1 TECH SPECS SECTION 3.13.6 AND UNIT 2 TECH SPECS SECTION 3.7.7. THE CAUSE OF THIS EVENT IS PERSONNEL ERROR DUE TO THE FIRE BARRIER PENETRATIONS' SEALS NOT BEING INSTALLED AS REQUIRED. THE FIRE BARRIER PENETRATION WALKDOWN IS STILL IN PROGRESS AT THIS TIME.

[76] HATCH 2 DOCKET 50-366 LER 84-012
ESF SYSTEM ACTUATION DUE TO INSTRUMENT FAILURE.
EVENT DATE: 080984 REPORT DATE: 090784 NSSS: GE TYPE: BWR
VENDOR: FENWALL ELECTRONICS CO.

(NSIC 191261) ON 8-8-84 AT 0535 CDT, A TRIP SIGNAL TO REACTOR WATER CLEAN-UP (RWCU) ISOLATION VALVE 2G31-F004 (I.E., A PRIMARY CONTAINMENT ISOLATION VALVE, PCIS, WHICH IS LISTED AS AN ENGINEERED SAFETY FEATURE, ESF) CAUSED IT TO CLOSE. FURTHER INVESTIGATION REVEALED THAT A FENWAL TYPE 56100 TEMPERATURE SWITCH (2G31-N008), USED FOR MONITORING RWCU NON-REGENERATIVE HEAT EXCHANGER (2G31-B002) OUTLET TEMPERATURE, HAD FAILED CAUSING THE ISOLATION OF 2G31-F004. 2G31-N008 WAS REPAIRED AND RECALIBRATED AND RWCU WAS RETURNED TO SERVICE ON 8-13-84.

[77] INDIAN POINT 2 DOCKET 50-247 LER 84-009
REACTOR COOLANT PUMP UNDERVOLTAGE SETPOINT.
EVENT DATE: 071984 REPORT DATE: 081884 NSSS: WE TYPE: PWR

(NSIC 191336) ON JULY 19, 1984 DURING SURVEILLANCE TESTING OF THE UNDERVOLTAGE REACTOR TRIP SETPOINT FOR THE 6.9 KV BUSES IT WAS OBSERVED THAT TWO OUT OF FOUR RELAYS DID NOT DE-ENERGIZE AT THE REQUIRED SET POINT. THE CAUSE WAS ATTRIBUTED TO EXCESSIVE MECHANICAL FRICTION. THE PLANT WAS AT COLD SHUTDOWN FOR A REFUELING OUTAGE.

[78] INDIAN POINT 2 DOCKET 50-247 LER 84-010
EXCESSIVE LEAKAGE THROUGH SERVICE WATER CONTAINMENT ISOLATION VALVE.
EVENT DATE: 072384 REPORT DATE: 082284 NSSS: WE TYPE: PWR
VENDOR: CLOW CORP.

(NSIC 191239) ON 7-23-84 IT WAS DETERMINED THAT A SERVICE WATER SYSTEM CONTAINMENT ISOLATION VALVE LOCATED DOWNSTREAM OF THE CONTAINMENT FAN COOLER UNITS EXCEEDED TECH SPEC LEAKAGE LIMITS DURING A PERIODIC SURVEILLANCE TEST. THE MEASURED LEAKAGE WAS 0.79 GPM AT A TEST PRESSURE OF 52 PSIG. THE ALLOWABLE LEAKAGE RATE IS 0.36 GPM PER FAN COOLER. THE EXCESSIVE LEAKAGE RATE WAS CORRECTED BY ADJUSTMENT OF THE TORQUE SETTING ON THE LIMITORQUE OPERATOR TO ACHIEVE TIGHTER SEATING. THE PLANT WAS AT COLD SHUTDOWN FOR A PLANNED REFUELING AND MAINTENANCE OUTAGE.

[79] INDIAN POINT 2 DOCKET 50-247 LER 84-011
FLOODING OF COMPONENT COOLING PUMP MOTORS.
EVENT DATE: 081384 REPORT DATE: 091284 NSSS: WE TYPE: PWR

(NSIC 191337) ON AUG 13, 1984, AT 10:50 A.M., WHILE AT COLD SHUTDOWN FOR A REFUELING MAINTENANCE OUTAGE, 2 OPERATING COMPONENT COOLING WATER PUMPS AND SUBSEQUENTLY THE STANDBY PUMP AUTOMATICALLY TRIPPED ON RECEIPT OF AN OVERCURRENT PROTECTION SIGNAL. THE OVERCURRENT CONDITION WAS CAUSED BY WETTING OF THE COMPONENT COOLING WATER PUMP MOTORS WITH SERVICE WATER. LEAKAGE THROUGH A SERVICE WATER VALVE PERMITTED SERVICE WATER FLOW INTO THE COMPONENT COOLING WATER PUMP COMPARTMENT THROUGH AN OPENING IN THE SERVICE WATER PIPING BEING PREPARED FOR A TEST. THE CENTRAL CONTROL ROOM WAS PROMPTLY NOTIFIED OF WATER CONDITIONS IN THE COMPARTMENT AND THE CCR OPERATORS IMMEDIATELY SECURED THE OPERATING SERVICE WATER PUMPS WHICH STOPPED THE FLOW. THE WATER WAS PUMPED AND DRAINED FROM THE COMPARTMENT. NO. 21 COMPONENT COOLING PUMP WAS FLUSHED WITH FRESH WATER, DRIED AND RETURNED TO SERVICE AT 1:44 PM.

[80] INDIAN POINT 3 DOCKET 50-286 LER 84-012
POTENTIAL OVERPRESSURIZATION OF COMPONENT COOLING WATER SYSTEM.
EVENT DATE: 071984 REPORT DATE: 081784 NSSS: WE TYPE: PWR

(NSIC 191357) ON 7-12-84, WESTINGHOUSE ADVISED THE NEW YORK POWER AUTHORITY (NYPA) AND SEVERAL OTHER UTILITIES THAT A POTENTIAL OVERPRESSURE CONDITION IN THE COMPONENT COOLING WATER (CCW) SYSTEM COULD OCCUR DURING PERIODS OF SYSTEM INLEAKAGE AND HEAT LOAD INCREASES. THE SEQUENCE OF POSTULATED EVENTS WOULD BE INITIATED BY A TUBE RUPTURE IN AN RCP THERMAL BARRIER HEAT EXCHANGER. RCS LEAKAGE TO THE CCW SYSTEM THEN OCCURS VIA LINE 21. THE FLOW CONTROL VALVE WOULD NORMALLY CLOSE UPON SENSING HIGH FLOW ON THIS LINE BUT IS ASSUMED TO REMAIN OPEN, CONSTITUTING THE "SINGLE FAILURE." RADIATION MONITORS WOULD DETECT THE CONTAMINATION ENTERING THE CCW SYSTEM. THESE MONITORS WOULD GENERATE A "CLOSE" SIGNAL TO THE CCW SURGE TANK VENT VALVES ON THE CCW SURGE TANKS WOULD OPEN AT 125 PSIG. WESTINGHOUSE HAS REPORTED THAT A SYSTEM OVERPRESSURIZATION OF UP TO 170% DOWNSTREAM OF THE CCW PUMPS COULD THEN OCCUR DUE TO PUMP DEVELOPED HEADS. AFTER A THOROUGH REVIEW OF THE INFORMATION PRESENTED BY WESTINGHOUSE, NYPA DETERMINED THAT A POTENTIAL UNREVIEWED SAFETY QUESTION WAS INVOLVED. THE NRC WAS NOTIFIED WITHIN ONE HOUR OF NYPA'S DETERMINATION. CONSISTENT WITH WESTINGHOUSE'S RECOMMENDATION, A CHANGE TO PLANT EQUIPMENT WAS INSTALLED IMMEDIATELY TO ALLEVIATE THE POTENTIAL OVERPRESSURE CONCERN.

[81] INDIAN POINT 3 DOCKET 50-286 LER 84-013
TURBINE TRIP AND REACTOR TRIP ON HIGH SG LEVEL.
EVENT DATE: 082284 REPORT DATE: 092184 NSSS: WE TYPE: PWR

(NSIC 191358) ON 8-22-84, A TURBINE GENERATOR TRIP AND SUBSEQUENT REACTOR TRIP WERE INITIATED AUTOMATICALLY ON HIGH LEVEL IN NO. 32 SG. THE HIGH LEVEL RESULTED FROM A FEEDWATER SYSTEM TRANSIENT WHICH BEGAN WITH A LEAK IN THE CONTROL OIL SYSTEM ON NO. 32 MAIN BOILER FEED PUMP. THE LEAK WAS REPAIRED AND THE UNIT RETURNED TO SERVICE.

[82] LA SALLE 1 DOCKET 50-373 LER 84-031
REACTOR WATER CLEANUP ISOLATION ON PUMP ROOM DIFFERENTIAL TEMPERATURE.
EVENT DATE: 061584 REPORT DATE: 070684 NSSS: GE TYPE: BWR

(NSIC 191263) THE UNIT 1 REACTOR WATER CLEANUP SYSTEM (CE) ISOLATED DUE TO HIGH PUMP ROOM DIFFERENTIAL TEMPERATURE. THE HIGH DIFFERENTIAL TEMPERATURE WAS CREATED WHEN THE NORMAL VENTILATION WAS SHUT DOWN AND CONTAINMENT VENT AND PURGE WAS OPERATED. THE FLOW WAS REDUCED BY A FACTOR OF TEN. THIS LOWER FLOW MAINTAINED INLET ROOM TEMPERATURE BUT WAS NOT HIGH ENOUGH TO REMOVE THE ROOM'S

HEAT WHICH IS MEASURED AT THE EXIT. THIS CAUSED THE SYSTEM TO ISOLATE PER DESIGN. TO CORRECT THIS PROBLEM, THE STATION WILL REVIEW PROCEDURES FOR ADMINISTRATIVE CHANGES TO IDENTIFY AND POSSIBLY PREVENT RECURRENCE OF THE ISOLATION.

[83] LA SALLE 1 DOCKET 50-373 LER 84-048
MISSED NOBLE GAS SAMPLE AND PARTICULATE AND IODINE SAMPLES COUNTED LATE.
EVENT DATE: 081084 REPORT DATE: 083184 NSSS: GE TYPE: BWR

(NSIC 191264) ON 8-10-84, UNIT 1 STANDBY GAS TREATMENT SYSTEM WAS RUN FROM 1338 HRS TO 2345 HRS. BY THE END OF THE RUN, A NOBLE GAS GRAB SAMPLE HAD NOT BEEN OBTAINED IN VIOLATION OF TECH SPEC 4.11.2.1.2. INSTRUMENT MONITORS SHOWED NO NOBLE GAS ACTIVITY DURING THE RUN, AND DECREASES IN IODINE AND PARTICULATE LEVELS. PERSONNEL ERROR IN NOT RELAYING APPROPRIATE INFORMATION AND A LESS THAN STRICT ADHERENCE TO THE SURVEILLANCE PROCEDURE WERE THE CAUSES OF THE EVENT. THE SURVEILLANCE WILL BE REVISED TO DEMAND BETTER INTER-DEPARTMENT COMMUNICATIONS UNDER AIR 01-84-67130.

[84] LA SALLE 2 DOCKET 50-374 LER 84-040
DRYWELL CRANE CIRCUITS NOT ON TECH SPEC SURVEILLANCE LIST.
EVENT DATE: 072584 REPORT DATE: 081484 NSSS: GE TYPE: BWR

(NSIC 191265) DURING A REVIEW OF PROCEDURES WHICH WILL BE AFFECTED BY THE UPDATED UNIT 1 TECH SPECS, IT WAS NOTICED THAT THE DRYWELL CRANE CIRCUITS (3) WERE NOT INCLUDED IN LOS-AA-D1 (TECH SPEC DAILY SURVEILLANCE). THESE SHOULD BE INCLUDED PER TECH SPEC PARAGRAPH 3/4.8.3. THE CAUSE IS DUE TO THE CIRCUITS NOT BEING INCLUDED IN THE UNIT 1 TECH SPECS AND AN ERRONEOUS INVESTIGATION WHICH HAD SHOWN THAT THE CRANES AND HOISTS WERE FED FROM THE SAME CIRCUIT AS THE WELDING GRID WHICH IS CURRENTLY BEING VERIFIED AS DE-ENERGIZED. THE DAILY SURVEILLANCE, MASTER START-UP CHECKLIST, AND DRYWELL CLOSE-OUT PROCEDURES ARE BEING REVISED TO INCLUDE VERIFICATION THAT THE CIRCUITS ARE DE-ENERGIZED.

[85] LA SALLE 2 DOCKET 50-374 LER 84-042
TURBINE FIRST STAGE PRESSURE TRANSMITTER FAILS.
EVENT DATE: 072884 REPORT DATE: 081584 NSSS: GE TYPE: BWR
VENDOR: ROSEMOUNT, INC.

(NSIC 191266) WHEN PROCEEDING WITH NORMAL UNIT SHUTDOWN ON 7-28-84, THE ROD SEQUENCE CONTROL SYSTEM (RSCS) WAS DECLARED INOPERABLE AND THE REACTOR WAS MANUALLY SCRAMMED IN ACCORDANCE WITH TECH SPECS. DURING THE SAME SHUTDOWN, A PRIMARY CONTAINMENT ISOLATION SYSTEM (PCIS) GROUP I ISOLATION OCCURRED. THE RSCS SYSTEM BECAME INOPERABLE BECAUSE PRESSURE TRANSMITTER 2C11-N054A FAILED. THIS TRANSMITTER SENDS A REACTOR POWER LEVEL SIGNAL TO THE RSCS SYSTEM. THE PCIS ISOLATION OCCURRED BECAUSE THE LOW CONDENSER VACUUM BYPASS SWITCHES WERE NOT BYPASSED WHEN VACUUM WAS BROKEN UNDER LOP-OG-10. PRESSURE SWITCH 2C11-N054A WAS REPLACED. THE NEW SWITCH WAS TESTED AND PUT IN SERVICE. PROCEDURE CHANGES WERE INITIATED FOR LOP-OG-10 AND LGP 2-2 TO PROMPT OPERATORS TO BYPASS THE LOW CONDENSER VACUUM TRIPS BEFORE BREAKING MAIN CONDENSER VACUUM.

[86] LA SALLE 2 DOCKET 50-374 LER 84-045
LOW CONTROL ROD DRIVE HEADER PRESSURE SCRAM.
EVENT DATE: 073184 REPORT DATE: 081784 NSSS: GE TYPE: BWR
VENDOR: BAILEY INSTRUMENT CO., INC.

(NSIC 191312) ON 7-31-84, AT 0944 HRS A FULL CORE SCRAM WAS RECEIVED WHEN THE REACTOR MODE SWITCH WAS PLACED IN THE REFUEL POSITION FOR AN INSTRUMENT SURVEILLANCE. PRIOR TO THE MODE SWITCH CHANGE, THE OPERATOR CHECKED THE CONTROL

ROD DRIVE CHARGING WATER PRESSURE, WHICH INITIATES A SCRAM SIGNAL IN THE REFUEL MODE, FOR LOW PRESSURE. THIS PRESSURE WAS NORMAL. INVESTIGATION SUBSEQUENT TO THE SCRAM SHOWED THE CONTROL ROOM INDICATOR WAS INDICATING 175 PSI HIGHER THAN ACTUAL PRESSURE AND THAT THE CRD PUMPS PROVIDED PRESSURES ONLY SLIGHTLY HIGHER THAN THE LOW PRESSURE INSTRUMENT TRIP POINTS. A TECH SPEC CHANGE IS BEING SOUGHT TO REDUCE THE TRIP SETPOINTS.

[87] LA SALLE 2 DOCKET 50-374 LER 84-048
REACTOR SCRAM INITIATION - REACTOR INSTRUMENT LINE VALVED IN.
EVENT DATE: 073184 REPORT DATE: 082984 NSSS: GE TYPE: BWR

(NSIC 191314) AT 1811 ON 7-31-84, WHILE THE UNIT 2 REACTOR WAS SHUT DOWN, A SCRAM WAS INITIATED BY A LOW VESSEL WATER LEVEL SIGNAL. SINCE ALL RODS WERE ALREADY FULLY INSERTED, NO ACTUAL ROD MOTION OCCURRED. INSTRUMENT MAINTENANCE HAD ISOLATED 2B21-R005, A REACTOR CORE PLATE DIFFERENTIAL PRESSURE INDICATOR, TO RESOLVE AN ERROR IN ITS INDICATION. THE INSTRUMENT WAS NOT PRE-PRESSURIZED TO REACTOR PRESSURE WHEN IT WAS VALVED BACK INTO SERVICE. THE UNIT WAS SHUT DOWN AT THE TIME, AND THE INSTRUMENT MECHANIC FELT THAT THE ONLY INSTRUMENT AFFECTED WAS AN INDICATOR. WHEN THE INSTRUMENT WAS VALVED BACK IN, A PRESSURE TRANSIENT IN THE SENSING HEADER LINE OCCURRED; LEVEL SWITCHES 2B21-N024C AND 2B21-N024D SENSE LEVEL FROM THE SAME HEADER, AND THE TRANSIENT CAUSED THEM TO TRIP AND INITIATE THE SCRAM. THE INSTRUMENT MECHANICS ARE TO BE TRAINED ON THE IMPORTANCE OF PRE-PRESSURIZING EQUIPMENT PRIOR TO RETURNING THE EQUIPMENT TO SERVICE, EVEN WHEN THE REACTOR IS SHUT DOWN.

[88] LA SALLE 2 DOCKET 50-374 LER 84-044
REACTOR WATER CLEANUP HIGH DIFFERENTIAL FLOW ISOLATION.
EVENT DATE: 080184 REPORT DATE: 081784 NSSS: GE TYPE: BWR
VENDOR: LONERGAN, J.E., CO.

(NSIC 191311) ON 8-1-84, AT 1451, WITH UNIT 2 IN START UP, REACTOR WATER CLEANUP ISOLATED ON HIGH DIFFERENTIAL FLOW. AT THE TIME OF THE EVENT, VESSEL LEVEL WAS BEING CONTROLLED BY RWCU BLOWDOWN FLOW. A LIFTED RELIEF VALVE, COMBINED WITH THE REACTOR START UP, CAUSED THE ISOLATION. SAFE PLANT CONDITIONS WERE MAINTAINED AT ALL TIMES. A WORK REQUEST WAS WRITTEN TO INVESTIGATE THE PROBLEM WITH THE LIFTING RELIEF VALVE.

[89] LA SALLE 2 DOCKET 50-374 LER 84-046
RWCU ISOLATES ON LEAK DETECTION HIGH AMBIENT TEMPERATURE.
EVENT DATE: 080584 REPORT DATE: 082184 NSSS: GE TYPE: BWR
VENDOR: RILEY-BEAIRD, INC.

(NSIC 191313) ON 8-5-84, AT 0640 HRS WITH UNIT 2 OPERATING AT ABOUT 73% POWER, THE REACTOR WATER CLEANUP (RWCU) INBOARD ISOLATION VALVE 2G33-F001 CLOSED AND THE REACTOR WATER CLEANUP PUMPS TRIPPED. THE CONTROL ROOM PANEL ALARMS INDICATED THAT THE SYSTEM HAD ISOLATED ON A SPURIOUS HIGH AMBIENT TEMPERATURE FROM THE RILEY LEAK DETECTION ISOLATION SYSTEM. AFTER VERIFYING THAT NO ABNORMAL CONDITION EXISTED THE RWCU SYSTEM WAS RESTARTED.

[90] LACROSSE DOCKET 50-409 LER 84-010
CONTROL ROD FAILS TO INSERT.
EVENT DATE: 071684 REPORT DATE: 080884 NSSS: AC TYPE: BWR
VENDOR: ROYAL INDUSTRIES, INC.

(NSIC 191229) DURING A REACTOR SHUTDOWN ON 7-16-84, CONTROL ROD NO. 29 WOULD NOT INSERT FROM ITS FULLY WITHDRAWN POSITION ELECTRICALLY. ALL OTHER CONTROL RODS INSERTED PROPERLY AND THE REACTOR WAS SHUT DOWN. ROD 29 DID NOT INSERT

HYDRAULICALLY, EITHER, IN RESPONSE TO A MANUAL SCRAM SIGNAL. ROD 29 IS A PERIPHERAL CONTROL ROD. THE MALFUNCTION WAS FOUND TO BE IN THE UPPER CONTROL ROD DRIVE MECHANISM (UCRD) IN POSITION 29. ONE OF THE THREE ROLLER ASSEMBLIES IN THE ROLLER NUT ASSEMBLY WAS FOUND TO BE LOOSELY ASSEMBLED, WHICH HAD ALLOWED THE BOTTOM BALL BEARINGS TO FALL OUT OF THE ROLLER ASSEMBLY. THE ROLLER NUT ASSEMBLY CONVERTS THE ROTARY MOTION OF THE MECHANISM LEAD SCREW INTO TRANSLATIONAL MOTION TO MOVE THE CONTROL ROD VIA THE PUSH ROD. IT APPEARED AS IF A BALL HAD LODGED AGAINST ONE OF THE LEAD SCREW THREADS CAUSING THE ROD TO JAM. ALL 3 ROLLER ASSEMBLIES WERE MISSING A CATCH PIN. THE 3 ROLLER ASSEMBLIES WERE REPLACED AND CATCH PINS INSTALLED. THE UCRD WAS REINSTALLED AND SUCCESSFULLY SCRAM TESTED. 3 OTHER UCRD'S WERE INSPECTED. THEIR ROLLER ASSEMBLIES WERE IN GOOD CONDITION.

[91] LACROSSE DOCKET 50-409 LER 84-013
OFFGAS SAMPLING INTERVALS EXCEED TECHNICAL SPECIFICATION LIMIT.
EVENT DATE: 081784 REPORT DATE: 091184 NSSS: AC TYPE: BWR

(NSIC 191319) SAMPLING OF OFFGAS WAS NOT PERFORMED WITHIN THE FREQUENCY REQUIRED BY TECH SPECS. THE LAST SAMPLING INTERVAL WAS WITHIN THE ALLOWABLE EXTENSION LIMIT, BUT THE TOTAL COMBINED INTERVAL TIME FOR THE LAST 3 SURVEILLANCE INTERVALS EXCEEDED THE LIMIT OF 3.25 TIMES THE SPECIFIED INTERVAL PERIOD. AN OFFGAS SAMPLE WAS TAKEN AND ANALYZED, BUT DETERMINED INVALID. AN ADDITIONAL SAMPLE WAS TAKEN. THE METHOD OF SCHEDULING THE OFFGAS SAMPLING IS BEING CHANGED TO THE MANNER USED FOR THE MAJORITY OF SURVEILLANCE TESTING.

[92] MCGUIRE 1 DOCKET 50-369 LER 84-023
FEEDWATER ISOLATION VALVE DRIFTED CLOSED.
EVENT DATE: 072384 REPORT DATE: 082284 NSSS: WE TYPE: PWR
VENDOR: BORG-WARNER CORP.

(NSIC 191310) AT 6:00 AM ON 7-23-84, UNIT 1 TRIPPED FROM 100% POWER ON A LO-LO SG LEVEL INDICATION. A SOLENOID VALVE IN THE FEEDWATER SYSTEM FAILED, ALLOWING HYDRAULIC FLUID TO LEAK PAST; THUS CAUSING THE ASSOCIATED CONTAINMENT ISOLATION VALVE TO DRIFT CLOSED. THE RESULTANT TRANSIENT WAS CONTROLLED PROPERLY, WITH NO SAFETY INJECTION, ABNORMAL RELEASE OF RADIOACTIVITY, OR ABNORMAL REACTOR COOLANT LEAKAGE. CORRECTIVE ACTION TO DATE INCLUDES ADDITION OF A CHART RECORDER TO THE FEEDWATER VALVES' HYDRAULIC PUMP MOTOR, TO DETECT ABNORMAL HYDRAULIC FLUID MAKEUP REQUIREMENTS. THE FAILURE OF THE SOLENOID VALVE IS BEING INVESTIGATED BY DUKE AND THE VALVE MANUFACTURER.

[93] MCGUIRE 2 DOCKET 50-370 LER 84-014
ACTIVE VALVES WITH COMMERCIAL LIMITORQUE ACTUATORS.
EVENT DATE: 060984 REPORT DATE: 070984 NSSS: WE TYPE: PWR
VENDOR: LIMITORQUE CORP.

(NSIC 190685) COMMERCIAL GRADE LIMITORQUE ACTUATORS WERE INSTALLED ON UNIT 2 COMPONENT COOLING SYSTEM (KC) CONTAINMENT ISOLATION VALVES 2KC-424B (INSIDE CONTAINMENT) AND 2KC-425A (AUX BLDG). FISHER CONTROLS, THE SUPPLIER FOR BOTH CLASS 1E ACTIVE VALVES, FAILED TO PROVIDE ENVIRONMENTALLY QUALIFIED ACTUATORS AS REQUIRED BY DUKE SPECIFICATIONS. THE COMMERCIAL GRADE ACTUATORS WERE DISCOVERED DURING AN ATTEMPT (ON JUN 9, 1984) TO INSTALL T-DRAIN PLUGS IN THE MOTOR HOUSING OF VALVE 2KC-424B WHEN IT WAS DISCOVERED THERE WAS NO PROVISION FOR THE PLUGS. UNIT 2 WAS IN MODE 1 100% POWER AT THE TIME OF DISCOVERY. THIS ERROR WENT UNDETECTED BECAUSE LIMITORQUE MODEL NUMBERS/NAMEPLATES DO NOT DISTINGUISH QUALIFIED ACTUATORS AND THEIR QUALIFICATION LEVEL FROM COMMERCIAL TYPE ACTUATORS. ONLY LIMITORQUE CAN DETERMINE THE QUALIFICATION LEVEL BY TRACING THEIR FACTORY ORDER NUMBER BACK TO A BILL OF MATERIAL. BASED ON EVALUATION THERE IS A VERY HIGH CONFIDENCE LEVEL THAT THE SUBJECT VALVES WILL OPERATE AT THE ONSET OF AN ACCIDENT, AND THE PROBABILITY OF A DBE OCCURRING AND CHALLENGING THE KC SYSTEM

BEFORE ACTUATOR REPLACEMENT CAN BE MADE IS QUITE REMOTE. THEREFORE, ACTUAL SAFETY CONSEQUENCES TO THE STATION IS CONSIDERED NEGLIGIBLE AND CONTINUED OPERATION FOR A REASONABLE PERIOD OF TIME IS JUSTIFIED. THE ACTUATORS WILL BE REPLACED WITH QUALIFIED UNITS AS SOON AS PLANT AVAILABILITY PERMITS.

[94] MILLSTONE 1 DOCKET 50-245 LER 84-017
REACTOR COCLANT UNIDENTIFIED LEAK RATE INCREASES TO TECHNICAL SPECIFICATION'S LIMIT.
EVENT DATE: 080284 REPORT DATE: 082484 NSSS: GE TYPE: BWR
VENDOR: VELAN VALVE CORP.

(NSIC 191288) ON 8-2-84, AT 0100 HRS, OPERATION'S PERSONNEL OBSERVED AN INCREASE FROM .5 TO 1.8 GALLONS PER MINUTE (GPM) IN THE UNIDENTIFIED LEAK RATE. SHORTLY THEREAFTER AT 0600 HRS, THE UNIDENTIFIED LEAK RATE INCREASED TO THE TECH SPEC LIMIT OF 2.5 GPM. A PLANT SHUTDOWN WAS IMMEDIATELY INITIATED AND PREPARATIONS FOR DRYWELL ENTRY COMMENCED. TECH SPEC 3.6.D REQUIRES THAT REACTOR COOLANT LEAKAGE INTO PRIMARY CONTAINMENT FROM UNIDENTIFIED SOURCES SHALL NOT EXCEED 2.5 GPM. IF THESE CONDITIONS CANNOT BE MET, INITIATE AN ORDERLY SHUTDOWN AND HAVE THE REACTOR IN COLD SHUTDOWN WITHIN 24 HRS. DRYWELL ENTRY REVEALED A 1" INSTRUMENT STOP VALVE IN THE G RECIRCULATION RISER DEVELOPED A PACKING LEAK AND SUBSEQUENTLY CAUSED THE UNIDENTIFIED LEAK RATE TO ESCALATE TO 2.5 GPM. THE VALVE WAS REPACKED AND SATISFACTORILY RETESTED. FOLLOWING ITS REPAIR, THE UNIDENTIFIED LEAK RATE RETURNED TO WITHIN ACCEPTABLE LIMITS.

[95] NINE MILE POINT 1 DOCKET 50-220 LER 84-015
INADVERTENT LOSS OF POWER TO TWO POWER BOARDS.
EVENT DATE: 080784 REPORT DATE: 090784 NSSS: GE TYPE: BWR

(NSIC 191238) DURING NORMAL OPERATIONS ON 8-7-84, CALIBRATION WORK WAS BEING PERFORMED ON THE POWER BOARD #103 UNDERVOLTAGE RELAYS. DG #103 AND ITS OUTPUT BREAKER WERE TAKEN OUT OF SERVICE FOR THIS WORK, AND POWER WAS BEING SUPPLIED TO POWER BOARD #103 FROM OFFSITE POWER THROUGH BREAKER R-1013. CALIBRATION WORK WAS THEN PERFORMED ON THE RELAYS, ONE AT A TIME, PER PROCEDURE N1-IMP-52, "PROCEDURE FOR CALIBRATION AND FUNCTIONAL TEST OF METERS AND PROTECTIVE RELAY SYSTEMS." DUE TO PERSONNEL ERROR, THE PROTECTIVE RELAYING WAS ACTUATED, CAUSING BREAKER R-1013 TO OPEN, AND PROTECTIVE RELAY 86-17 TO TRIP ON POWER BOARD #17, DE-ENERGIZING POWER BOARDS #103 AND #17B. THIS CAUSED APPROX HALF OF THE STATION'S SAFETY-RELATED LOADS TO BECOME INOPERABLE. OPERATORS RE-ESTABLISHED OFFSITE POWER TO THE POWERBOARDS APPROX 10 MINS AFTER THE EVENT OCCURRED. THE CALIBRATIONS WERE THEN SATISFACTORILY COMPLETED. TO PREVENT RECURRENCES OF THIS TYPE IN THE FUTURE, PROCEDURAL CHANGES WILL BE IMPLEMENTED, AND ENGRAVED NAMEPLATES INDICATING THE PROPER TEST SWITCH OPERATING SEQUENCE WILL BE ATTACHED AT EACH TEST SWITCH ASSEMBLY ON POWER BOARDS #102 AND #103.

[96] NORTH ANNA 1 DOCKET 50-338 LER 84-006
APPLICATION OF UNQUALIFIED PROTECTIVE COATINGS ON CONTAINMENT VENTILATION DUCTWORK.
EVENT DATE: 080184 REPORT DATE: 083084 NSSS: WE TYPE: PWR

(NSIC 191307) THE AIR COOLING AND PURGING SYSTEM GALVANIZED DUCTWORK AND SUPPORTS IN THE LOWER LEVEL OF UNIT NO. 1 AND UNIT NO. 2 CONTAINMENTS HAVE BEEN COATED TO MITIGATE CORROSION. REVIEW OF STATION RECORDS INDICATED THAT THE COATING MATERIALS SELECTED WERE NOT KNOWN TO BE QUALIFIED FOR APPLICATION WITHIN THE CONTAINMENT WHEN APPLIED OVER A GALVANIZED SUBSTRATE. SUBSEQUENT DBA AND ADHESION TESTS WERE PERFORMED ON TEST PANELS REMOVED FROM THE DUCTWORK WHICH VERIFIED THAT THE COATING DID NOT MEET THE REQUIRED PERFORMANCE CRITERIA. THE CAUSE OF THE EVENT WAS DETERMINED TO BE PRIMARILY DUE TO INADEQUATE CLASSIFICATION OF THE WORK AND SECONDARILY TO A FAILURE OF PERSONNEL TO FOLLOW

SITE PROCEDURES CONTROLLING APPLICATION OF COATINGS WITHIN THE CONTAINMENT. THE CORRECTIVE ACTION TAKEN WAS TO INSTALL A TYPE 304 STAINLESS STEEL WIRE MESH SCREEN OVER THE COATED SURFACES OF THE DUCTWORK AND SUPPORTS. THE WIRE SCREEN WILL RETAIN THE COATING MATERIAL WHICH MAY DISBOND FROM THE DUCTWORK FOLLOWING A LOCA AND THEREFORE ENSURE THAT THERE WILL BE NO IMPACT ON THE OPERATION OF SAFETY RELATED EQUIPMENT. SITE PROCEDURES HAVE BEEN STRENGTHENED IN ORDER TO PREVENT RECURRENCE AND TRAINING HAS BEEN PROVIDED.

[97] NORTH ANNA 1 DOCKET 50-338 LER 84-007
EXAMINATIONS INDICATE FUEL ASSEMBLY LEAKS.
EVENT DATE: 080284 REPORT DATE: 083084 NSSS: WE TYPE: PWR
VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 191382) DURING THE SPRING 1984 UNIT 1 REFUELING OUTAGE, THE CYCLE 4 FUEL ASSEMBLIES (N1C4) WERE EXAMINED FOR POSSIBLE LEAKAGE. OF THE 157 ASSEMBLES, 17 WERE DETERMINED TO BE LEAKING BASED ON SIPPING EXAMINATIONS. SUBSEQUENT HIGH MAGNIFICATION VISUAL EXAMINATION OF THE 17 ASSEMBLIES INDICATED THAT TWO (2) FUEL ASSEMBLIES EXHIBITED MISSING TIP END PLUGS, TWO (2) ASSEMBLIES EXHIBITED THROUGH-WALL FRETTING DEFECTS AND ONE (1) EXHIBITED A HYDRIDE BLISTER DEFECT. AN EVALUATION OF THE FUEL FAILURES IS IN PROGRESS BUT NOT COMPLETED. BASED ON PRELIMINARY VISUAL EVALUATION, POSSIBLE FAILURE MECHANISMS ARE PRIMARY HYDRIDING, DEBRIS INDUCED FRETTING, WELD DEFECTS, AND STRESS RELATED DEFECTS. BAFFLE JETTING HAS BEEN RULED OUT AS A FAILURE MECHANISM. THE CYCLE 5 CORE WAS REDESIGNED AND ALL LEAKING ASSEMBLIES FROM CYCLE 4 WHICH WERE INTENDED FOR RELOAD INTO CYCLE 5 WERE REPLACED. ALL ASSEMBLIES REUSED IN CYCLE 5 UNDERWENT A PRECAUTIONARY CLEANING PROCESS TO ELIMINATE DEBRIS. THIS REPORT IS BEING SUBMITTED AS A VOLUNTARY REPORT.

[98] OYSTER CREEK DOCKET 50-219 LER 84-018
STANDBY GAS TREATMENT SYSTEM HAS LOW FLOW.
EVENT DATE: 080984 REPORT DATE: 091084 NSSS: GE TYPE: BWR

(NSIC 191287) ON 8-9-84, THE FLOW RATE THROUGH STANDBY GAS TREATMENT SYSTEM (SGTS) NO. 2 WAS FOUND TO BE BELOW THE LIMIT GIVEN IN SECTION 4.5.K.1.B.3 OF THE TECH SPECS. THE FLOW RATE WAS DETERMINED USING A 16-POINT TRAVERSE METHOD AS OPPOSED TO INSTALLED INSTRUMENTATION. THE TECH SPEC RANGE OF ACCEPTABLE FLOW RATES IS 2340-2860 CFM; FLOW RATE DURING THE TEST WAS FOUND TO BE 2334 CFM. THE MANUAL DAMPER IN THE SYSTEM WAS ADJUSTED, THE SYSTEM WAS RETESTED, AND THE RESULTANT FLOW RATE WAS 2687 CFM.

[99] OYSTER CREEK DOCKET 50-219 LER 84-019
SDV DRAIN VALVE CLOSURE FAILURE.
EVENT DATE: 081784 REPORT DATE: 091884 NSSS: GE TYPE: BWR
VENDOR: VALTEK INC.

(NSIC 191334) ON FRI, AUG 17, 1984, WHILE PERFORMING A SURVEILLANCE TEST OF SCRAM DISCHARGE VOLUME (SDV) DRAIN VALVES V-15-121 AND V-15-134, BOTH VALVES FAILED TO CLOSE UPON COMMAND. A MAINTENANCE CREW WAS DISPATCHED AND DISCOVERED THAT THE MECHANICAL OVERRIDE TO VALVE V-15-121 HAD BEEN POSITIONED SUCH THAT THE AIR OPERATOR COULD NOT CLOSE THE VALVE. V-15-134 FAILED TO CLOSE DUE TO BINDING. THE MECHANICAL OVERRIDE FOR V-15-121 WAS REPOSITIONED AND V-15-134 WAS OVERHAULED. THE SURVEILLANCE WAS REPEATED AND BOTH VALVES PERFORMED SATISFACTORILY.

[100] PALISADES DOCKET 50-255 LER 84-011
ENGINEERED SAFETY FEATURES ACTUATE DURING INSTRUMENT CALIBRATION.
EVENT DATE: 071984 REPORT DATE: 082084 NSSS: CE TYPE: PWR

(NSIC 191290) ON 7-19-84, WHILE TECHNICIANS WERE CALIBRATING CONTAINMENT PRESSURE SWITCHES, TWO SPURIOUS CONTAINMENT HIGH PRESSURE SIGNALS WERE GENERATED WHICH RESULTED IN ENGINEERED SAFETY FEATURE ACTUATIONS. THE ENGINEERED SAFETY FEATURE ACTUATIONS CONSISTED OF A SAFETY INJECTION SIGNAL (SIS) ACTUATION, CONTAINMENT ISOLATION ACTUATION AND A CONTAINMENT SPRAY ACTUATION. THE OCCURRENCE WAS ATTRIBUTED TO PERSONNEL ERROR BY THE TECHNICIANS WHO WERE CALIBRATING THE PRESSURE SWITCHES.

[101] PALISADES DOCKET 50-255 LER 84-013
CHARGING PUMP SEAL LEAKS.
EVENT DATE: 072784 REPORT DATE: 082784 NSSS: CE TYPE: PWR
VENDOR: MANTON GAULIN

(NSIC 191242) ON 7-27-84, THE RESULTS OF A DAILY LEAK RATE CALCULATION INDICATED PRIMARY COOLANT SYSTEM (PCS) LEAKAGE TO BE GREATER THAN 1 GPM UNIDENTIFIED. THE PLANT WAS CONDUCTING LOW POWER PHYSICS TESTING AT THE TIME OF THE OCCURRENCE. CONCURRENTLY, LARGE QUANTITIES OF WATER WERE BEING TRANSFERRED INTO AND OUT OF THE PCS WHICH INTRODUCED ERRORS INTO THE LEAK RATE CALCULATION, THEREBY MAKING IT DIFFICULT FOR PLANT PERSONNEL TO DETERMINE IF THE CALCULATED UNIDENTIFIED LEAK RATE WAS INDEED REPRESENTATIVE OF ACTUAL PLANT CONDITIONS. A CHARGING PUMP SEAL LEAK WAS SUBSEQUENTLY DISCOVERED AND ISOLATED, LOWERING THE PCS UNIDENTIFIED LEAK RATE TO WITHIN ACCEPTABLE LIMITS.

[102] PALISADES DOCKET 50-255 LER 84-014
REACTOR CRITICAL ON LESS THAN 525 F.
EVENT DATE: 072884 REPORT DATE: 082784 NSSS: CE TYPE: PWR

(NSIC 191243) ON JULY 28, 1984, WITH THE REACTOR CRITICAL IN HOT STANDBY CONDITION, PRIMARY COOLANT TEMPERATURE DROPPED BELOW 525 DEGREES F DURING A ROUTINE PLANT EVALUATION. THE CONDITION IS PROHIBITED BY PALISADES TECH SPEC 3.1.3(C). THE OCCURRENCE RESULTED FROM A ROUTINE EVALUATION, WHEREIN THE ATMOSPHERIC STEAM DUMPS WERE OPENED TO EQUALIZE PRESSURE ON EITHER SIDE OF THE MAIN STEAM ISOLATION VALVES (MSIV) TO FACILITATE OPENING OF THE MSIVS. BEFORE THE ATMOSPHERIC STEAM DUMPS COULD BE CLOSED, PRIMARY COOLANT TEMPERATURE FELL BELOW 525 DEGREES F, TO A LOW OF 521 DEGREES F. THE OCCURRENCE IS ATTRIBUTED TO LICENSED OPERATOR ERROR, IN FAILING TO TERMINATE THE RAPID COOLDOWN THAT WAS IN PROGRESS IN A TIMELY MANNER. A CAUTION STEP WILL BE ADDED TO THE OPERATING PROCEDURE TO ALERT OPERATORS OF THE POTENTIAL PROBLEM.

[103] PEACH BOTTOM 3 DOCKET 50-278 LER 84-009
HPCI INOPERABLE DUE TO STEAM SUPPLY LINE HANGER FAILURES.
EVENT DATE: 080184 REPORT DATE: 083184 NSSS: GE TYPE: BWR

(NSIC 191352) ON 8-1-84, AT 6:50 PM, WITH UNIT 3 AT 100% POWER, THE HPCI SYSTEM WAS DECLARED INOPERABLE AS THE RESULT OF THE IDENTIFICATION OF A MECHANICAL FAILURE OF A SECOND HPCI STEAM SUPPLY LINE HANGER 3-23-DBN-S4. THE HANGER WAS IDENTIFIED BY CONSTRUCTION PERSONNEL WORKING IN THE AREA TO HAVE A BROKEN WELD. EARLIER IN MAY 1984, BOLTS WERE FOUND MISSING FROM HANGER 3-23-DBN-S3, WHICH IS ALSO ON THE HPCI STEAM SUPPLY LINE; HOWEVER, MECHANICAL ENGINEERING DIVISION'S EVALUATION CONCLUDED THAT THIS SINGLE HANGER DEFICIENCY WAS NOT SUFFICIENT TO RENDER THE HPCI STEAM SUPPLY LINE AS NON-SEISMICALLY QUALIFIED. AS A RESULT OF THE FIRST HANGER DEFICIENCY COMBINED WITH THIS SECOND HANGER FAILURE, THE SUPPORT OF THE HPCI STEAM SUPPLY LINE WAS CONSIDERED TO BE NON-SEISMICALLY QUALIFIED. ADS, RCIC, LPCI, AND CORE SPRAY SYSTEMS WERE VERIFIED AS OPERABLE. CAUSE OF THE HANGER DEFICIENCY IS UNKNOWN. HANGER 3-23-DBN-S4 WAS REPAIRED AND HPCI WAS TESTED FOR OPERABILITY AND RETURNED TO SERVICE AT 5:55 PM ON AUG 2, 1984. HANGER 3-23-DBN-S3 WILL BE REPAIRED AS A MODIFICATION BY THE CONSTRUCTION DIVISION DURING THE NEXT REFUEL OUTAGE ON UNIT 3.

[104] PEACH BOTTOM 3 DOCKET 50-278 LER 84-010
SPURIOUS ACTUATION OF THE PRIMARY CONTAINMENT ISOLATION SYSTEM.
EVENT DATE: 081684 REPORT DATE: 091384 NSSS: GE TYPE: BWR
VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 191353) ON 8-16-84, WITH UNIT 3 AT 99% POWER, A PARTIAL ACTUATION OF THE PRIMARY CONTAINMENT ISOLATION SYSTEM (PCIS) OCCURRED. INVESTIGATION REVEALED THAT THE ACTUATION WAS DUE TO A MOMENTARY LOSS OF POWER TO A PORTION OF THE PCIS OUTBOARD ISOLATION LOGIC. PCIS, DESIGNED AS A FAIL-SAFE SYSTEM, OPERATED AS DESIGNED TO ISOLATE THE AFFECTED OUTBOARD VALVES IN GROUPS 2A AND 2D. THE LOSS OF POWER WAS CAUSED BY GROUNDED LEADS ON THE PRIMARY SIDE OF THE UNIT 2 'A' CONDENSATE PUMP TRANSFORMER. THE 2A CONDENSATE PUMP TRANSFORMER BREAKER TRIPPED IMMEDIATELY TO CLEAR THE GROUND. THE PCIS LOGIC WAS IMMEDIATELY RESET AND THE AFFECTED SYSTEMS WERE RETURNED TO SERVICE.

[105] PEACH BOTTOM 3 DOCKET 50-278 LER 84-011
PCIS, RPS, AND ECCS SYSTEMS ACTUATE.
EVENT DATE: 082184 REPORT DATE: 092084 NSSS: GE TYPE: BWR

(NSIC 191295) ON 8-21-84, WITH UNIT 3 AT 100% POWER, A SUDDEN RUNBACK OF ALL 3 REACTOR FEEDPUMPS RESULTED IN A REACTOR LOW LEVEL SCRAM, GROUPS I, II, AND III ISOLATIONS, AND AUTOMATIC INITIATION OF THE HIGH PRESSURE COOLANT INJECTION (HPCI), AND REACTOR CORE ISOLATION COOLING (RCIC) SYSTEMS. NORMAL REACTOR LEVEL WAS IMMEDIATELY RESTORED. THE GROUP I, II, AND III ISOLATIONS WERE RESET AND ESSENTIAL SYSTEMS WERE PROMPTLY RETURNED TO SERVICE. THE CAUSE OF THE FEEDPUMP RUNBACK IS BELIEVED TO BE INTERMITTENT FAILURE OF A COMPONENT IN THE FEEDWATER CONTROL SYSTEM.

[106] PILGRIM 1 DOCKET 50-293 LER 84-010
CONTROL ROD DRIVE COLLET RETAINER TUBE WELD DEFECTS.
EVENT DATE: 082284 REPORT DATE: 092084 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CORP. (NUCLEAR ENG DIV)

(NSIC 191359) ON 8-22-84 DURING A REFUELING OUTAGE, IT WAS DETERMINED THAT A CRD COLLET RETAINER TUBE HAD A 3/16" TO 1/4" TRANSVERSE THROUGH-WALL CRACK. THE CRACK WAS LOCATED IN THE LOWER SHOULDER ATTACHMENT WELD WITHIN ONE INCH BELOW THE LOWER SHOULDER. THIS IS AN AREA OF "NO INDICATIONS ALLOWED" PER GE SIL NO. 139, SUPPLEMENT 4. THIS RETAINING TUBE IS OF THE IMPROVED DESIGN MANUFACTURED WITH CAST 304L STAINLESS STEEL. THE IMMEDIATE CORRECTIVE ACTION WAS TO DECLARE THE RETAINER TUBE IN NONCONFORMANCE AND SCHEDULE IT FOR REPLACEMENT DURING THE CURRENT REFUELING OUTAGE. THE DETERMINATION OF THE CAUSE IS PENDING COMPLETION OF AN EVALUATION BY GE.

[107] POINT BEACH 1 DOCKET 50-266 LER 84-004
INADVERTENT ACTUATION OF REACTOR PROTECTION SYSTEM ON LOW PRESSURIZER PRESSURE.
EVENT DATE: 072184 REPORT DATE: 082084 NSSS: WE TYPE: PWR

(NSIC 191246) WHILE PERFORMING MAINTENANCE ON A TURBINE FIRST STAGE PRESSURE INSTRUMENT, AN INADVERTENT REACTOR PROTECTION ACTUATION OCCURRED. THE REACTOR WAS SHUT DOWN WITH THE PRESSURIZER PRESSURE BELOW THE LOW PRESSURIZER PRESSURE TRIP SETPOINT. WHEN THE TURBINE FIRST STAGE PRESSURE INSTRUMENT WAS PLACED IN TEST FOR MAINTENANCE PURPOSES, IT DEENERGIZED INTERLOCK CIRCUIT P7. THIS UNBLOCKED THE LOW PRESSURIZER PRESSURE TRIP FUNCTION AND RESULTED IN A REACTOR PROTECTION ACTUATION.

[108] PRAIRIE ISLAND 1 DOCKET 50-282 LER 84-004
INADVERTENT LOCKOUT OF RESERVE TRANSFORMER.
EVENT DATE: 071884 REPORT DATE: 081784 NSSS: WE TYPE: PWR

(NSIC 191252) DURING NORMAL OPERATION OF BOTH UNITS, MISOPERATION OF GE 12HEA61A LOCKOUT RELAY CAUSED LOCKOUT OF THE 2RY RESERVE TRANSFORMER AND AUTO-START OF BOTH DG'S. IN OCT 1983 GE ISSUED SERVICE ADVICE 4721-PSM-175.1 ALERTING CUSTOMERS OF POTENTIAL MISOPERATIONS OF CERTAIN HEA RELAYS. 11 SUSPECT (INSTALLED) RELAYS WERE TESTED AND 3 SHOWED THE POTENTIAL FOR MISOPERATION; THE RELAY THAT CAUSED THIS EVENT WAS 1 OF THOSE 3. THE RELAY WILL BE REPLACED.

[109] QUAD CITIES 1 DOCKET 50-254 LER 84-013
REACTOR SCRAM AND ECCS INITIATON FROM FALSE SIGNAL.
EVENT DATE: 080884 REPORT DATE: 090684 NSSS: GE TYPE: BWR

(NSIC 191345) ON AUGUST 8, 1984, AT 2206 HOURS, UNIT ONE WAS SHUT DOWN FOR A REFUELING OUTAGE. THE MODE SWITCH WAS IN THE STARTUP POSITION SO THAT THE ROD WORTH MINIMIZER COULD BE TESTED. A NEW VESSEL LEVEL INSTRUMENT LINE WAS IMPROPERLY BACKFLUSHED, AND THE LOW WATER LEVEL SCRAM AND LOW-LOW WATER LEVEL EMERGENCY CORE COOLING SYSTEM SETPOINTS WERE REACHED. ALL LOW PRESSURE EMERGENCY CORE COOLING SYSTEMS, DIESEL GENERATORS, AND PRIMARY CONTAINMENT ISOLATION SYSTEMS FUNCTIONED AS DESIGNED. VESSEL LEVEL AT THE START OF THIS EVENT WAS +35 INCHES AND ROSE TO +100 INCHES DURING THE EVENT.

[110] QUAD CITIES 1 DOCKET 50-254 LER 84-017
STEAM JET AIR EJECTOR VALVES INCORRECTLY INSTALLED.
EVENT DATE: 081684 REPORT DATE: 091484 NSSS: GE TYPE: BWR

(NSIC 191346) ON AUGUST 16, 1984, AT 4:30 P.M., UNIT ONE WAS IN THE STARTUP MODE, AT LESS THAN 1% CORE THERMAL POWER. THE MECHANICAL VACUUM PUMP WAS TURNED ON TO DRAW INITIAL VACUUM ON THE MAIN CONDENSER. SINCE THE VACUUM PUMP KEPT TRIPPING DUE TO HIGH TEMPERATURE, AND STEAM JET AIR EJECTOR (SJAE) FLOW WENT TO ZERO WHEN CONDENSER CIRCULATING WATER FLOW WAS IN THE NORTH DIRECTION, BUT FUNCTIONED PROPERLY WITH REVERSED CONDENSER CIRCULATING WATER FLOW, IT WAS SUSPECTED THAT THE SOUTH SJAE SUCTION VALVES 1-5401A AND B WERE NOT OPERATING PROPERLY. SUBSEQUENT INSPECTIONS PERFORMED ON THE VALVES REVEALED THAT THE DISC OF THESE TWO BUTTERFLY VALVES WERE INSTALLED 90 DEGREES OUT OF PROPER ORIENTATION. THE VALVES WERE REPAIRED AND RETURNED TO SERVICE BY 8:40 A.M. ON AUGUST 17, 1984, AND A DEVIATION REPORT WAS INITIATED.

[111] QUAD CITIES 2 DOCKET 50-265 LER 84-009
REACTOR SCRAMS ON RPS MOTOR-GENERATOR SET FEED BREAKER TRIP.
EVENT DATE: 080584 REPORT DATE: 082884 NSSS: GE TYPE: BWR
VENDOR: AIRMATIC VALVE INC.
GENERAL ELECTRIC CO.

(NSIC 191291) ON 8-5-84, AT 1044 HRS, THE 2B REACTOR PROTECTION SYSTEM MOTOR-GENERATOR SET FEED BREAKER TRIPPED RESULTING IN THE LOSS OF THE 2B REACTOR PROTECTION SYSTEM BUS. THIS CAUSED THE AC SOLENOID VALVES, WHICH SUPPLY INSTRUMENT AIR TO THE OUTBOARD MAIN STEAM ISOLATION VALVE'S (MSIV) OPERATORS, TO BECOME DE-ENERGIZED AND CLOSED. TWO OF THE DC SOLENOID VALVES, WHICH ALSO SUPPLY AIR TO THE MSIV OPERATORS, WERE FAILED, THEREBY CAUSING THE A AND B OUTBOARD MSIV'S TO CLOSE. THE REACTOR THEN SCRAMMED FROM 50% CORE THERMAL POWER DUE TO THE CHANNEL B SCRAM SIGNAL PRESENT, CAUSED BY THE LOSS OF THE MOTOR-GENERATOR SET, AND THE CHANNEL A SCRAM SIGNAL, CAUSED BY THE 10% FROM FULL OPEN CONDITION OF THE A AND B OUTBOARD MSIV'S. ALL REACTOR SAFETY SYSTEMS WERE OPERABLE AND FUNCTIONED AS DESIGNED.

[112] RANCHO SECO DOCKET 50-312 LER 84-018 REV 1
UPDATE ON FEEDWATER TRANSIENT.
EVENT DATE: 060184 REPORT DATE: 071084 NSSS: BW TYPE: PWR
VENDOR: MELTRON CORP.

(NSIC 191367) THE INTEGRATED CONTROL SYSTEM (ICS) WAS IN FULL AUTO WITH THE DELTA TC CONTROLLER IN MANUAL. AT 9:06 AM, 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 68% POWER. AT 9:17 AM, 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 STILL AT 68% POWER, THE REACTOR TRIPPED AT THE MFS HIGH PRESSURE TRIP SETPOINT (2300 PSI) DUE TO THE UNDERFEED. UPON INVESTIGATION, IT WAS DETERMINED THAT THE INITIAL TRANSIENT WAS CAUSED BY A MOMENTARY SHORT OF 2 OF 4 PRESSURE SWITCHES IN THE MAIN STEAM LINE BREAK LOGIC. THE SHORT IN THE PRESSURE SWITCHES WAS CAUSED BY BOURDON TUBE LEAKS IN BOTH SWITCHES WHICH ALLOWED WATER TO ACCUMULATE IN THE SWITCHES AND MOMENTARILY SHORT THEM OUT. WHEN THESE SWITCHES SHORTED THE 'B' MAIN FEEDWATER STARTUP AND MAIN CONTROL VALVES STARTED TO CLOSE, WHICH CAUSED THE MAIN BLOCK VALVE TO CLOSE. THE SHORTED PRESSURE SWITCHES WERE REPLACED AND THE UNIT WAS PLACED ON LINE 6-2-84 AT 1514 HRS.

[113] SALEM 2 DOCKET 50-311 LER 84-018
REACTOR TRIP AND SAFETY INJECTION DUE TO RCS LOW PRESSURE.
EVENT DATE: 072584 REPORT DATE: 082484 NSSS: WE TYPE: PWR
VENDOR: CORSBY VALVE & GAGE CO.
LIMITORQUE CORP.
MAROTTA SCIENTIFIC CONTROLS, INC.
VELAN VALVE CORP.

(NSIC 191366) ON JULY 25, 1984, WHILE PERFORMING THE FINAL STEPS OF THE PRESSURIZER OVERPRESSURE PROTECTION SYSTEM FUNCTIONAL TEST, REACTOR COOLANT SYSTEM PRESSURE RAPIDLY DECREASED UPON OPENING PORV BLOCK VALVE 2PR6. THE OPERATOR IMMEDIATELY ATTEMPTED TO CLOSE 2PR6; HOWEVER, IT FAILED TO CLOSE IN THE REQUIRED TIME, RESULTING IN A REACTOR TRIP AND SAFETY INJECTION. THE REACTOR PROTECTION SYSTEM AND ALL ENGINEERED SAFETY FEATURE SYSTEMS AND EMERGENCY CORE COOLING SYSTEMS FUNCTIONED AS DESIGNED DURING THE TRANSIENT. FOLLOWING THE SAFETY INJECTION, AND SUBSEQUENT CLOSURE OF 2PR6, THE PLANT RECOVERED TO NORMAL OPERATING PARAMETERS. THE DEPRESSURIZATION WAS CAUSED BY THE INADVERTENT OPENING, AND FAILURE TO RESEAT, OF POPS RELIEF VALVE 2PR47. INVESTIGATION OF 2PR6 REVEALED A BROKEN WIRE IN THE VALVE OPERATOR CIRCUIT. TESTING REVEALED THAT THE VALVE CLOSURE THRUST WAS ADEQUATE, ALTHOUGH AT THE MINIMUM RECOMMENDED VALUE. IN ADDITION, IT IS SUSPECTED THAT THE CALCULATED "REQUIRED" TORQUE IS NOT ADEQUATE WHEN AN ATTEMPT IS MADE TO REVERSE THE VALVE DIRECTION WHILE THE VALVE IS IN A MID-STROKE POSITION. THESE PROBLEMS, ALONG WITH OTHERS NOTED IN THE TEXT OF THIS LER WERE SATISFACTORILY CORRECTED. DUE TO THE AUTOMATIC ACTUATION OF THE REACTOR PROTECTION SYSTEM AND THE ENGINEERED SAFETY FEATURE, THE EVENT IS REPORTABLE IN ACCORDANCE WITH 10CFR 50.73 (A)(2)(IV).

[114] SALEM 2 DOCKET 50-311 LER 84-019
BOTH CONTAINMENT SPRAY SYSTEMS INOPERABLE IN MODE 4.
EVENT DATE: 072684 REPORT DATE: 082484 NSSS: WE TYPE: PWR

(NSIC 191300) ON 7-26-84, A CONTROLLED COOLDOWN TO MODE 5 WAS BEING PERFORMED. INTEGRATED OPERATING PROCEDURE NO. 6 REQUIRES VARIOUS EMERGENCY CORE COOLING SYSTEM EQUIPMENT TO BE ADMINISTRATIVELY CLEARED AND TAGGED AT SPECIFIC REACTOR COOLANT SYSTEM TEMPERATURES. IN ANTICIPATION OF THE MODE CHANGES, THE PROCEDURE

WAS REVIEWED AND THE APPROPRIATE TAGGING REQUESTS WERE MADE READY. ALTHOUGH THE TAGGING REQUESTS WERE CORRECT, BOTH CONTAINMENT SPRAY PUMPS WERE INADVERTENTLY CLEARED AND TAGGED WHILE THE UNIT WAS IN MODE 4. HOWEVER, TECH SPEC LIMITING CONDITION FOR OPERATION 3.6.2.1 REQUIRES 2 INDEPENDENT CONTAINMENT SPRAY SYSTEMS TO BE OPERABLE IN MODES 1, 2, 3 AND 4. WHEN THE ERROR WAS DISCOVERED, THE SHIFT SUPERVISOR IMMEDIATELY AUTHORIZED THE RELEASE OF THE TAGS AND ORDERED AN OPERABILITY TEST ON THE PUMPS. BOTH PUMPS WERE SATISFACTORILY TESTED AND RETURNED TO AN OPERABLE STATUS. THE CONTAINMENT SPRAY SYSTEMS WERE INOPERABLE FOR APPROX 3 HRS. THE INCIDENT WAS ATTRIBUTED TO PERSONNEL ERROR; A COMBINATION OF LACK OF COMMUNICATION, AND INSUFFICIENT INSTRUCTIONS WHEN ISSUING THE TAGGING REQUEST. SINCE THE CONTAINMENT SPRAY SYSTEM SERVES AS AN ACCIDENT MITIGATING SYSTEM, ITS INOPERABILITY IS REPORTABLE IN ACCORDANCE WITH 10 CFR 50.73(A)(2)(V)(D).

[115] SAN ONOFRE 2 DOCKET 50-361 LER 84-036
HPSI ISOLATION VALVES HAVE EXCESSIVE FREE STEM MOVEMENT.
EVENT DATE: 062984 REPORT DATE: 081784 NSSS: CE TYPE: PWR
VENDOR: TARGET ROCK CORP.

(NSIC 190224) THIS SUBMITTAL PROVIDES AN INFORMATIONAL LER FOR A DEFICIENCY IDENTIFIED WITH THE HIGH PRESSURE SAFETY INJECTION (HPSI) MOTOR-OPERATED, LOOP ISOLATION VALVES. ON 2-27-84, HPSI ISOLATION VALVE 3HV9327 FAILED TO STROKE MORE THAN APPROX 20% STEM TRAVEL WHEN ATTEMPTING TO OPEN THE VALVE DURING PERFORMANCE OF A SURVEILLANCE ON HPSI CHECK VALVES. THE VALVE'S INTERNALS WERE REPLACED, AND THE VALVE WAS RETESTED SATISFACTORILY AND RESTORED TO SERVICE. AN ANALYSIS OF THE REMOVED INTERNALS REVEALED EXCESSIVE WEAR ON THE STEM AND RETAINING RING. A SPECIAL TEST WAS DEVELOPED TO MEASURE THE AMOUNT OF 'FREE STEM MOVEMENT' TO DETERMINE IF OTHER VALVES HAD ALSO WORN EXCESSIVELY. TWO OTHER VALVES (3HV9332 AND 3HV9323) WHICH WERE OPERATING SATISFACTORILY, WERE IDENTIFIED AS HAVING EXCESSIVE 'FREE STEM MOVEMENT.' ONE OTHER VALVE (2HV9326) SUBSEQUENTLY FAILED TO STROKE MORE THAN 20% STEM TRAVEL DURING PERFORMANCE OF A SURVEILLANCE ON HPSI CHECK VALVES. VALVES EXHIBITING EXCESSIVE FREE STEM MOVEMENT WERE REPAIRED, RETESTED AND RETURNED TO SERVICE. THE REMAINING VALVES ARE DETERMINED TO BE OPERABLE AND CAPABLE OF PERFORMING THEIR SAFETY FUNCTIONS.

[116] SAN ONOFRE 2 DOCKET 50-361 LER 84-042
SPURIOUS TOXIC GAS ISOLATION SYSTEM ACTUATIONS.
EVENT DATE: 073084 REPORT DATE: 082984 NSSS: CE TYPE: PWR

(NSIC 191259) ON 7-30-84, AT 0943, WITH UNIT 2 IN MODE 1 AT 100% POWER AND UNIT 3 IN MODE 5, A SPURIOUS TOXIC GAS ISOLATION SYSTEM (TGIS) ACTUATION OCCURRED. SUBSEQUENT TO THIS DATE, ADDITIONAL SPURIOUS ACTUATIONS OCCURRED ON 8-2, 3, 4, 8 AND 23. THE CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM (CREACUS) ACTUATED ON EACH TGIS. FOR EACH OCCURRENCE, THE ACTUATION WAS VERIFIED TO BE SPURIOUS BY CONFIRMING THAT THE METER INDICATIONS ON THE TGIS PANEL WERE LESS THAN THEIR RESPECTIVE SETPOINTS, AND TGIS WAS IMMEDIATELY RESET. SEE ALSO LERS 84-006, 012, 021, 026, 032 AND 037 (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 WAS SUBMITTED 4-27-84, REQUESTING MORE APPROPRIATE TGIS SETPOINTS. IN ADDITION, A REQUEST FOR EXEMPTION FROM REPORTING SPURIOUS ACTUATIONS OF THE TGIS UNDER 10 CFR 50.72 AND 10 CFR 50.73 IS BEING PREPARED.

[117] SAN ONOFRE 3 DOCKET 50-362 LER 84-034
MISSING CONDUIT FIRE WRAPPING.
EVENT DATE: 082484 REPORT DATE: 082784 NSSS: CE TYPE: PWR

(NSIC 191260) ON 8-24-84, WITH UNIT 3 IN MODE 2, AN ENGINEERING EVALUATION WAS COMPLETED ON A NONCONFORMANCE REPORT (NCR) WHICH IDENTIFIED A CONDITION WHEREIN 3 1/2 FEET OF CONDUIT FIRE WRAPPING FOR THE TURBINE-DRIVEN AUX FEEDWATER PUMP POWER AND CONTROL CABLES WAS MISSING CONTRARY TO THE FIRE HAZARDS ANALYSIS. IN ACCORDANCE WITH TECH SPEC 3.7.9, ACTION STATEMENT 'A', AN HOURLY FIRE WATCH PATROL WAS ESTABLISHED UPON DISCOVERY AND WILL REMAIN IN EFFECT UNTIL THE CONDUIT IS WRAPPED. THE CONDITION REPRESENTS AN ADDITIONAL EXAMPLE OF DEFICIENCIES PREVIOUSLY REPORTED IN LERS 84-001, 015, 024, 030, AND 041 (DOCKET NO. 50-361). THE CONDITION APPARENTLY WAS UNDETECTED DURING THE PREVIOUS SYSTEM WALKDOWNS BECAUSE A CLERICAL ERROR IN PREPARATION OF THE SYSTEM WALKDOWN LIST OMITTED THIS CONDUIT. THIS REPORT IS ALSO SUBMITTED TO FULFILL THE REQUIREMENTS OF LICENSE CONDITION 2.G. RELATING TO LICENSE CONDITION 2.C.(12)A OF OPERATING LICENSE NPF-15 FOR UNIT 3.

[118] SEQUOYAH 1 DOCKET 50-327 LER 83-122 REV 1
UPDATE ON FAILURE OF DG TO MAINTAIN LOAD.
EVENT DATE: 092783 REPORT DATE: 110183 NSSS: WE TYPE: PWR
VENDOR: BASLER ELECTRIC COMPANY

(NSIC 188043) WITH UNIT 1 IN MODE 1 (100% REACTOR POWER) AT 0610 CDT ON 09/27/83, DIESEL GENERATOR (DG) 2A-A WAS DECLARED INOPERABLE DUE TO FAILURE TO MAINTAIN A LOAD OF 4400 KW DURING SURVEILLANCE TESTING. THE MECHANICAL GOVERNOR WAS ADJUSTED AND THE DG RETURNED TO SERVICE. ON 09/27/83, AT 2040, DG 2A-A WAS DECLARED INOPERABLE WHEN THE DG TRIPPED ON HIGH DIFFERENTIAL CURRENT. TROUBLESHOOTING DID NOT REVEAL ANY PROBLEMS, AND THE DG WAS RETURNED TO SERVICE. AT 1454 ON 09/28/83, DG 2A-A WAS DECLARED INOPERABLE DUE TO A LOSS OF THE EXCITATION TRANSFORMER. FOR EACH EVENT, THE UNIT COMPLIED WITH ACTION (A) OF LCO 3.8.1. TROUBLESHOOTING THE ABOVE EVENTS LED TO THE CONCLUSION THAT ALL THREE INCIDENTS WERE RELATED AND CAUSED BY A FAULTY EXCITER TRANSFORMER. THE B PHASE SATURABLE CORE TRANSFORMER IN THE VOLTAGE REGULATOR CIRCUIT WAS BURNED AND THE A PHASE SATURABLE CORE TRANSFORMER HAD HIGH LEAKAGE CURRENT. ALSO, THE B PHASE LINEAR REACTOR IN THE TRANSFORMER HAD HIGH LEAKAGE CURRENT. THE EXCITATION TRANSFORMER WAS REPLACED AND THE DG RETURNED TO SERVICE AT 1130 CDT ON 09/29/83.

[119] SEQUOYAH 1 DOCKET 50-327 LER 84-048
RCS PRESSURE CHANNEL FAILS TO SATISFY REQUIREMENTS.
EVENT DATE: 072584 REPORT DATE: 082484 NSSS: WE TYPE: PWR

(NSIC 191256) DURING A REVIEW OF INSTRUMENTATION DRAWINGS, IT WAS DISCOVERED THAT A POST ACCIDENT MONITORING REACTOR COOLANT SYSTEM (RCS) PRESSURE CHANNEL DID NOT PRESENTLY EXIST IN THE FIELD. ONLY ONE PRESSURE CHANNEL, SCALED 0-3000 PSIG, WAS INSTALLED WHILE TWO CHANNELS ARE REQUIRED. ANOTHER PRESSURE CHANNEL, SCALED 0-600 PSIG, WAS INSTALLED AND OPERABLE. THIS 0-600 PSIG CHANNEL WAS RESCALED TO 0-3000 PSIG AND PLACED IN SERVICE TO MEET THE TWO CHANNEL REQUIREMENT. THE 0-600 PSIG INDICATOR IS NOT REQUIRED. A DESIGN CHANGE HAD BEEN MADE THE LAST REFUELING OUTAGE WHICH MOVED THE REQUIRED CHANNELS. THE EXISTING CHANNEL INDICATOR AND A RECORDER WERE CONSIDERED TO FILL THE TWO CHANNEL REQUIREMENT. AFTER INVESTIGATION, IT WAS DETERMINED THAT THE INDICATOR AND RECORDER WERE FED FROM THE SAME TRANSMITTER AND ONE INDICATOR WAS SCALED WRONG, THUS NOT PROVIDING TWO INDEPENDENT WIDE RANGE INDICATIONS. THE RESCALED CHANNEL WILL PROVIDE REDUNDANT PRESSURE INDICATION UNTIL THE OTHER INDICATOR CAN BE REWIRED.

[120] SEQUOYAH 1 DOCKET 50-327 LER 84-050
CONTROL ROOM VENTILATION ISOLATES.
EVENT DATE: 080784 REPORT DATE: 090684 NSSS: WE TYPE: PWR

(NSIC 191304) A SPURIOUS SIGNAL FROM THE CHLORINE DETECTOR CAUSED A CONTROL ROOM ISOLATION (CRI) TO OCCUR. MAINTENANCE PERSONNEL TESTED THE MONITOR AND FOUND IT FUNCTIONING PROPERLY AFTER PERFORMING SURVEILLANCE INSTRUCTION (SI)-240, "FUNCTIONAL TEST OF CONTROL ROOM AIR INTAKE CHLORINE DETECTION SYSTEM." THE CAUSE OF THE SPURIOUS SIGNAL COULD NOT BE FOUND NOR COULD THE SIGNAL BE REPRODUCED. THE DETECTOR WAS DETERMINED TO BE OPERATIONAL AND IT WAS RETURNED TO SERVICE.

[121] SEQUOYAH 1 DOCKET 50-327 LER 84-049
INADEQUATE SEPARATION FOR SEVERAL SAFETY-RELATED POWER CABLES.
EVENT DATE: 081584 REPORT DATE: 082984 NSSS: WE TYPE: PWR

(NSIC 191378) FOLLOWING ADDITIONAL INSPECTIONS OF VARIOUS SAFETY-RELATED SYSTEMS AT SEQUOYAH, INTERACTIONS WERE FOUND THAT WERE NOT IN COMPLIANCE WITH APPENDIX R OF 10 CFR 50. FIRE WATCHES HAVE BEEN ESTABLISHED AS REQUIRED PER ACTION STATEMENT OF TECH SPEC 3.7.12 AND WILL CONTINUE UNTIL COMPLIANCE WITH APPENDIX R CAN BE MADE. THIS REPORT IS REQUIRED PER LICENSE CONDITION 2.H, 10 CFR 50.73 (A)(2)(II) AND SPECIAL REPORT REQUIREMENTS OF TECH SPEC 3.7.12. PREVIOUS OCCURRENCES - ONE - SQRO-50-327/84046.

[122] SEQUOYAH 1 DOCKET 50-327 LER 84-052
CONTROL ROOM EMERGENCY VENTILATION SYSTEM INOPERABLE.
EVENT DATE: 081784 REPORT DATE: 091484 NSSS: WE TYPE: PWR

(NSIC 191305) DURING A REVIEW OF TEST DATA FOR SI-144.2, "CONTROL ROOM EMERGENCY VENTILATION SYSTEM TEST," IT WAS DISCOVERED THAT AN INCORRECT CALCULATION OF DUCT AREA RESULTED IN BOTH TRAINS OF THE CONTROL ROOM EMERGENCY VENTILATION SYSTEM BEING LEFT WITH LOWER THAN ACCEPTABLE FLOW RATES FOR APPROX 3 HRS ON 8-17-84.

[123] SEQUOYAH 1 DOCKET 50-327 LER 84-055
BREACH OF AUXILIARY BUILDING SECONDARY CONTAINMENT ENCLOSURE (ABSCE).
EVENT DATE: 082084 REPORT DATE: 092084 NSSS: WE TYPE: PWR

(NSIC 191379) WORK WAS BEING PERFORMED ON THE AUXILIARY BUILDING ROOF WHICH REQUIRED ACCESS THROUGH TWO DOORS WHICH ARE ARRANGED IN AN AIR LOCK CONFIGURATION. THE OUTER DOOR IS A VITAL AREA BOUNDARY DOOR AND WAS UNLOCKED USING ADMINISTRATIVE CONTROLS. A SECURITY OFFICER WAS STATIONED AT THE DOOR TO MAINTAIN THE VITAL AREA BOUNDARY. THE PERSONNEL WORKING AT THIS LOCATION FAILED TO REALIZE THE DOORS WERE AN ABSCE BOUNDARY AND BLOCKED THE DOORS OPEN. THIS CONFIGURATION WOULD HAVE PREVENTED THE AUXILIARY BUILDING GAS TREATMENT SYSTEM FROM MAINTAINING A MINUS 1/4 INCH WATER GAUGE PRESSURE AS REQUIRED PER TECH SPEC 3.7.8 SURVEILLANCE 4.7.8.D.3.

[124] SEQUOYAH 2 DOCKET 50-328 LER 84-013
RUPTURE OF PRESSURIZER RELIEF TANK (PRT) DISC.
EVENT DATE: 082084 REPORT DATE: 091884 NSSS: WE TYPE: PWR
VENDOR: BLACK-SIVALS-BRYSON

(NSIC 191380) DURING NORMAL PLANT OPERATIONS ON 08/20/84, UNIT 2 EXPERIENCED A RUPTURE OF THE PRESSURIZER RELIEF TANK (PRT) RUPTURE DISC AT 1203 CST. THIS RESULTED IN A CONTAINMENT VENTILATION ISOLATION AND THE SHUTDOWN OF THE UNIT WAS INITIATED AND THE UNIT COMPLIED WITH THE RADIOLOGICAL EMERGENCY PLAN FOR AN UNUSUAL EVENT. THE PRT DISC RUPTURE WAS CAUSED BY A LEAKING PRESSURIZER SAFETY VALVE WHICH RELIEVES TO THE PRT. UPON RUPTURE OF THE PRT DISC THE CONTAINMENT

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

[125] SUMMER 1 DOCKET 50-395 LER 84-033
FIRE BARRIER NOT BOLTED SHUT.
EVENT DATE: 080284 REPORT DATE: 083184 NSSS: WE TYPE: PWR

(NSIC 191271) ON 8-2-84, IT WAS IDENTIFIED THAT A NORMALLY BOLTED CLOSED FIRE BARRIER ASSEMBLY LOCATED IN THE AUX BLDG 463' ELEVATION WAS CLOSED BUT NOT BOLTED. IMMEDIATE CORRECTIVE ACTION WAS TAKEN TO INSTALL THE MISSING BOLTS. IN ADDITION, AN INVESTIGATION WAS INITIATED TO IDENTIFY THE CAUSE OF THIS EVENT. DUE TO PERSONNEL ERRORS, ESTABLISHED PROCEDURES WERE NOT PROPERLY ADHERED TO IN THE REMOVAL OF THIS FIRE BARRIER. DURING THIS EVENT, THE LICENSEE FAILED TO COMPLY WITH ACTION STATEMENT (A) OF TECH SPEC 3.7.10, "FIRE RATED ASSEMBLIES."

[126] SUMMER 1 DOCKET 50-395 LER 84-035
REACTOR BUILDING RADIATION MONITOR INOPERABLE.
EVENT DATE: 081584 REPORT DATE: 082984 NSSS: WE TYPE: PWR

(NSIC 191316) THIS IS A 14 DAY SPECIAL REPORT REQUIRED BY TECH SPEC ACTION STATEMENT 3.3.3.1.B, TABLE 3.3-6, ACTION 30-2. ON 8-15-84, WITH THE PLANT OPERATING AT 99% POWER, SPURIOUS HIGH RADIATION ALARMS WERE EXPERIENCED WITH RM-A14, "REACTOR BLDG HIGH RANGE ATMOSPHERIC PURGE MONITOR." THE MONITOR WAS DECLARED INOPERABLE. DEGRADED ELECTRICAL COMPONENTS WERE REPLACED, AND THE MONITOR WAS SATISFACTORILY TESTED PRIOR TO BEING RETURNED TO SERVICE ON 8-23-84. BECAUSE OF PERSONNEL ERROR, THE LICENSEE EXCEEDED THE 72 HR TECH SPEC ACTION STATEMENT 3.3.3.1.B WITHOUT PERFORMING THE REQUIRED PREPLANNED ALTERNATE METHOD OF MONITORING. NO REACTOR BLDG PURGES WERE IN PROGRESS, AND RM-A4, "REACTOR BLDG PURGE RADIATION MONITOR," REMAINED OPERABLE. THE EVENT WILL BE DISCUSSED WITH APPROPRIATE OPERATIONS AND HEALTH PHYSICS PERSONNEL IN ORDER TO INCREASE THEIR AWARENESS IN THIS AREA. NO FURTHER CORRECTIVE ACTION IS PLANNED.

[127] SURRY 1 DOCKET 50-280 LER 84-018
FIRE DOOR OPEN.
EVENT DATE: 082384 REPORT DATE: 092184 NSSS: WE TYPE: PWR

(NSIC 191354) ON 8-23-84, AT 0200 HRS, WITH THE UNIT AT 80% POWER, AN OPERATOR PERFORMING A ROUTINE WALKDOWN DISCOVERED AN AIR HOSE BLOCKING OPEN THE FIRE DOOR BETWEEN MECHANICAL EQUIPMENT SPACE #1 AND THE CABLE SPREADING ROOM. THE AIR HOSE WOULD HAVE PREVENTED THE DOOR FROM CLOSING IN THE EVENT OF A FIRE. AT THIS TIME, NO FIRE WATCH WAS PRESENT IN THE ARE. AS REQUIRED BY TECH SPECS. THIS EVENT WAS CAUSED BY CONTRACTOR PERSONNEL MISINTERPRETATION OF END OF SHIFT WALKDOWN PROCEDURES.

[128] SURRY 2 DOCKET 50-281 LER 84-013
FUSE BLOWS CAUSING A REACTOR TRIP.
EVENT DATE: 080784 REPORT DATE: 090684 NSSS: WE TYPE: PWR
VENDOR: LIMITORQUE CORP.

(NSIC 191296) ON 8-7-84, A REACTOR TRIP OCCURRED FROM THE COMPLETION OF THE 2 OF 3 LOGIC MATRIX ON OVERPOWER DELTA T PROTECTION. PRIOR TO THIS EVENT, INSTRUMENT TECHNICIANS WERE PERFORMING PERIODIC TESTING ON NUCLEAR INSTRUMENT (NI-43) WHEN A BLOWN CONTROL POWER FUSE IN THE INSTRUMENT DRAWER RESULTED IN COMPLETION OF THE

NIS DROPPED ROD PROTECTION CIRCUITRY WHICH CAUSED A TURBINE RUNBACK. APPROX 2 MINS FOLLOWING THE START OF THE TURBINE RUNBACK, A REACTOR TRIP OCCURRED FROM THE COMPLETION OF THE 2 OF 3 LOGIC MATRIX ON OVERPOWER DELTA T PROTECTION. INITIATION OF THE OP DELTA T TRIP FUNCTION WAS CAUSED BY A DECREASING OP DELTA T SETPOINT. THE BLOWN FUSE IN INSTRUMENT DRAWER NI-43 WAS CAUSED WHEN TECHNICIANS IMPROPERLY USED AN UNGROUNDED POWER LEAD WITH A DIGITAL VOLTMETER TO OBTAIN A DETECTOR CURRENT MEASUREMENT. ADEQUATE INSTRUCTIONS WILL BE FURNISHED FOR TEST EQUIPMENT SETUPS.

[129] SURRY 2 DOCKET 50-281 LER 84-014
UNEXPECTED START OF AFW PUMP.
EVENT DATE: 082184 REPORT DATE: 091984 NSSS: WE TYPE: PWR

(NSIC 191355) WHILE REPLACING RELAY PRB-XB, AN UNEXPECTED START OF AUX FEED PUMP 2-FW-P-3B OCCURRED. IT WAS DISCOVERED THAT ONE OF THE JUMPERS INSTALLED TO PREVENT UNNECESSARY RELAY ACTUATION WAS POSITIONED INCORRECTLY. THE JUMPERS WERE PROPERLY INSTALLED AND THE RELAY REPLACED. ADDITIONAL PRECAUTIONARY MEASURES WILL BE ADDED TO THE RELAY REPLACEMENT PROCEDURE TO ENSURE THAT JUMPERS ARE CORRECTLY SPECIFIED AND PLACED.

[130] SUSQUEHANNA 1 DOCKET 50-387 LER 84-029
STARTUP TRANSFORMER TRIPS CAUSING LOSS OF FEEDWATER AND REACTOR SCRAM.
EVENT DATE: 070384 REPORT DATE: 080284 NSSS: GE TYPE: BWR

(NSIC 191267) AS A RESULT OF A LIGHTNING STRIKE ON A 230KV TRANSMISSION LINE, THE UNIT 1 START-UP TRANSFORMER T-10 ISOLATED 1 OF 2 SOURCES OF OFFSITE POWER. THE LOSS OF THE T-10 TRANSFORMER CAUSED A TRIP TO THE UNIT 1 AND 2 'A' 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. MANUAL FEEDWATER CONTROL WAS TAKEN TO DECREASE REACTOR VESSEL LEVEL. THE 'A' REACTOR FEEDWATER TURBINE TRIPPED 3 SECS AFTER BEING RESET. THE 'C' REACTOR FEEDWATER TURBINE FLOW DECREASED DUE TO THE STEAM SUPPLY ISOLATING. THE 'B' REACTOR FEEDWATER PUMP DID NOT PROVIDE SUFFICIENT FLOW TO MAINTAIN REACTOR VESSEL LEVEL. THE REACTOR SCRAMMED ON LOW LEVEL. REACTOR VESSEL LEVEL DECREASED AND INITIATED THE HPCI AND RCIC SYSTEMS, AND CLOSED THE MSIV'S. REACTOR VESSEL LEVEL INCREASED TO THE TRIP POINT FOR HPCI, RCIC, AND REACTOR FEEDWATER TURBINES. ALL SAFETY SYSTEMS WHICH WERE REQUIRED OPERATED SATISFACTORY. THIS EVENT IS REPORTABLE PER 10CFR50.73(A)(2)(IV) SINCE AN UNPLANNED ENGINEERED SAFETY FEATURE (ESF) ACTUATION OCCURRED AND THE RPS TRIPPED.

[131] SUSQUEHANNA 1 DOCKET 50-387 LER 84-034
UNIT 1 SCRAM ON PHASE-TO-PHASE FAULT; UNIT 2 SCRAM ON LOSS OF CONDENSER VACUUM.
EVENT DATE: 071584 REPORT DATE: 081484 NSSS: GE TYPE: BWR

(NSIC 191268) ON 7-15-84, AT 0914 WHILE OPERATING AT 100% POWER, THE 230KV TRANSMISSION LINE EXPERIENCED A PHASE-TO-PHASE FAULT. THE TRANSMISSION LINE SAGGED INTO A TREE AFTER SEVERAL DAYS OF HIGH HEAT AND HUMIDITY. THIS OPENED THE UNIT 1 SYNC BREAKER, RESULTING IN A GENERATOR LOAD REJECTION AND TURBINE TRIP. THIS, IN TURN, CAUSED A UNIT 1 SCRAM. SUBSEQUENTLY, UNIT 2 EXPERIENCED A REACTOR SCRAM AT 1007 FROM 25% POWER DUE TO LOW CONDENSER VACUUM WHICH DEVELOPED AFTER ITS ASSOCIATED OFF-GAS RECOMBINER TRIPPED AND COULD NOT BE RETURNED TO SERVICE. AT THE TIME OF THE UNIT 1 GENERATOR TRIP, THE UNIT 2 OFF-GAS RECOMBINER WAS OUT OF SERVICE. UNIT 2 WAS OPERATING ON THE COMMON OFF-GAS RECOMBINER. A REVIEW INDICATES THAT THE COMMON RECOMBINER BEGAN TO MALFUNCTION AT THE TIME OF THE UNIT 1 GENERATOR TRIP. THE MALFUNCTION OF THE COMON RECOMBINER IS POSTULATED AS BEING DUE TO A MOMENTARY LOSS OF POWER TO THE RECOMBINER'S CONTROL PANELS.

[132] SUSQUEHANNA 1 DOCKET 50-387 LER 84-036
GREASE IN RPS M-G SET 'A' MOTOR WINDINGS CAUSED SHORT CIRCUIT.
EVENT DATE: 072484 REPORT DATE: 082184 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CO.

(NSIC 191269) DUE TO A BUILDUP OF GREASE IN THE MOTOR OF THE 'A' RPS MOTOR-GENERATOR (M-G) SET, A SHORT CIRCUIT TO GROUND DEVELOPED WHICH TRIPPED THE M-G SET. THE EXCESSIVE GREASE RESULTED FROM AN INCREASED LUBRICATION FREQUENCY INITIATED IN RESPONSE TO A SIGNIFICANT RATTLE IN THE M-G SET'S FLYWHEEL BEARING. INADVERTENTLY, IN ADDITION TO THE FLYWHEEL BEARING, THE LUBRICATION FREQUENCY OF ALL POINTS ON THE M-G SET WAS INCREASED. THIS RESULTED IN THE UNANTICIPATED START OF THE STANDBY GAS TREATMENT SYSTEM AND THE CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY SYSTEM (CREOASS) WHICH ARE ENGINEERED SAFETY FEATURES. FOLLOWING ITS START, THE CREOASS TRIPPED DUE TO LOW DIFFERENTIAL TEMPERATURE ACROSS THE TRAIN'S HEATERS. THIS IS A CONDITION THAT HAD BEEN IDENTIFIED IN THE PAST AND WILL BE CORRECTED BY RELOCATING ONE OF THE TRAIN'S TEMPERATURE ELEMENTS AND ADJUSTING THE TRIP PARAMETERS.

[133] SUSQUEHANNA 1 DOCKET 50-387 LER 84-037
EPA BREAKER TRIPS CAUSED ESF ACTUATIONS.
EVENT DATE: 080384 REPORT DATE: 083084 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CO.

(NSIC 191315) ON 8-3-84, WITH THE UNIT AT 100% POWER, THE ELECTRICAL PROTECTION ASSEMBLY (EPA) BREAKERS ON THE REACTOR PROTECTION SYSTEM (RPS) ALTERNATE POWER SUPPLY TO RPS BUS 'A' TRIPPED TWICE WITHIN 4 MINS. BOTH TIMES, THE STANDBY GAS TREATMENT SYSTEM (SGTS) AND CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY SYSTEM (CREOASS) STARTED AND THE REACTOR WATER CLEANUP (RWCU) INLET INBOARD ISOLATION VALVE CLOSED. THE SGTS AND CREOASS ARE ENGINEERED SAFETY FEATURES (ESF). THE RWCU VALVE IS ALSO PART OF THE PRIMARY CONTAINMENT ISOLATION SYSTEM, WHICH IS AN ESF. ALL ACTUATIONS WERE PER DESIGN. VOLTAGE REGULATING/CONDITIONING TRANSFORMERS WILL BE INSTALLED IN THE ALTERNATE POWER FEED TO THE EPA BREAKERS TO PREVENT RECURRENCE OF THIS EVENT. (SEE LER 84-036 (UNIT 1) FOR DETAILS REGARDING WORK PERFORMED ON THE RPS MOTOR-GENERATOR SET.)

[134] SUSQUEHANNA 1 DOCKET 50-387 LER 84-038
RHR LEAK DETECTION RELAY NOT INCLUDED IN SURVEILLANCE PROCEDURE.
EVENT DATE: 080784 REPORT DATE: 090684 NSSS: GE TYPE: BWR
VENDOR: AGASTAT RELAY CO.

(NSIC 191270) ON 8-7-84, WITH THE UNIT AT 100% POWER, INSTRUMENTATION AND CONTROLS (I&C) PERSONNEL IDENTIFIED THAT THE RELAYS (WHICH CONTROL THE RESIDUAL HEAT REMOVAL SYSTEM SHUTDOWN COOLING MODE ISOLATION ON HIGH AREA DIFFERENTIAL TEMPERATURE) HAD NOT RECEIVED SURVEILLANCE TESTING SINCE 1-27-82. THE SURVEILLANCE WAS SUCCESSFULLY COMPLETED ON 8-8-84 AT 1415. I&C HAS REVIEWED ADDITIONAL DOCUMENTATION REGARDING THE ADEQUACY OF I&C SURVEILLANCE TESTS AND FOUND NO FURTHER DISCREPANCIES.

[135] SUSQUEHANNA 2 DOCKET 50-388 LER 84-008
RPS MANUAL SCRAM DUE TO STUCK OPEN TURBINE BYPASS VALVE DURING SHUTDOWN.
EVENT DATE: 052784 REPORT DATE: 062784 NSSS: GE TYPE: BWR
VENDOR: GEN ELEC CO (STEAM TURB/ENGRD PROD)

(NSIC 190565) AT 0530 HRS ON 5/28/84 SHUTDOWN OF UNIT 2 REACTOR COMMENCED FROM LOW POWER TESTING PER ACTION STATEMENT (B)(3) OF TECH SPEC 3.5.1.B(2) INCURRED AT 1730 HRS 7 DAYS EARLIER ON 5/21/84 DUE TO THE INOPERABILITY OF THE 'B' LOOP OF THE LPCI SYSTEM (REFER TO LER 84-006). THE SHUTDOWN WAS BEING ACCOMPLISHED BY INSERTING CONTROL RODS INDIVIDUALLY INTO THE REACTOR CORE UTILIZING THE ROD PULL

SHEET. SHUTDOWN PRECEEDED NORMALLY UNTIL AT 0605 HRS WHEN IT WAS OBSERVED THAT THE #1 TURBINE BYPASS VALVE WOULD NOT CLOSE BELOW THE 18% OPEN POSITION. SHUTDOWN OF UNIT 2 WAS HALTED AND CONTROL RODS IN GROUP 5 WERE PULLED TO MAINTAIN REACTOR PRESSURE WITH THE #1 TURBINE BYPASS VALVE CONTROLLING AT A POSITION SLIGHTLY GREATER THAN 18%. IT WAS DETERMINED THAT #1 BYPASS VALVE COULD NOT BE CLOSED BELOW THE 18%. THE BEST MEANS AVAILABLE FOR SHUTTING DOWN THE REACTOR WOULD BE THRU AN RPS MANUAL SCRAM AND AT 1346 HRS, THE UNIT 2 REACTOR WAS MANUALLY SCRAMMED. THE PLANT CONTROL OPERATOR TRIPPED THE 'B' REACTOR FEED PUMP AND CLOSED ALL INBOARD MAIN STEAM ISOLATION VALVES AT 700 PSIG. INVESTIGATION OF THE EHC PRESSURE CONTROL AND BYPASS VALVE CONTROL LOGIC INDICATED THAT ALL CONTROL FUNCTIONS WERE OPERATING NORMALLY. ON #1 BYPASS VALVE A CHIPPING HAMMER WEDGED BETWEEN THE BYPASS VALVE SEAT AND THE VALVE DISC PREVENTED THE #1 BYPASS VALVE FROM FULLY CLOSING. DISASSEMBLY OF THE #1 BYPASS VALVE SHOWED SMALL DENTS ON THE DISC AND THE SEAT OF THE VALVE.

[136] THREE MILE ISLAND 2 DOCKET 50-320 LER 83-035
PENETRATION LEVELS OF ULTRA FILTERS EXCEED LIMIT.
EVENT DATE: 072083 REPORT DATE: 081683 NSSS: BW TYPE: PWR

(NSIC 190385) FILTER MEDIA AND BASE SEPARATED. 36 MINE SAFETY APPLIANCES (MSA) ULTRA FILTERS WERE DISCOVERED TO HAVE PENETRATION LEVELS IN EXCESS OF THE ALLOWABLE 0.03% BASED ON RESULTS FROM THE AIR TECHNIQUES Q-127 RESPIRATOR FILTER TESTING DEVICE AT TMI. THE FILTERS WERE SENT TO MSA FOR FURTHER TESTING. 50 ADDITIONAL MSA FILTERS WERE TESTED DURING THE WEEK OF JULY 25, 1983. THREE FAILURES WERE FOUND; THESE WERE SENT TO AIR TECHNIQUES. TEST RESULTS FROM MSA AND AIR TECHNIQUES CONFIRMED TMI'S READINGS. THIS EVENT IS NOT REPORTABLE PURSUANT TO TMI'S TECH SPECS. BASED ON A DISCUSSION WITH THE FILTER MANUFACTURER, THE CAUSE OF THE EVENT APPEARS TO BE DUE TO AN ADHESIVE SEPARATION BETWEEN THE FILTER MEDIA AND THE FILTER BASE. ONLY MSA ULTRA FILTERS WHICH HAVE BEEN TESTED AND FOUND ACCEPTABLE WILL BE ISSUED FOR FIELD USE.

[137] TROJAN DOCKET 50-344 LER 84-006 REV 1
UPDATE ON REACTOR TRIP AND MAIN STEAM CHECK VALVE FAILURE.
EVENT DATE: 042784 REPORT DATE: 082784 NSSS: WE TYPE: PWR
VENDOR: ATWOOD & MORRILL CO., INC.

(NSIC 191257) ON APR 27, 1984 AT 6:27 PM, AN AUTOMATIC REACTOR TRIP OCCURRED DUE TO 'C' SG LOW-LOW LEVEL FOLLOWING A PLANT TEST IN WHICH THE NORTH MAIN FEEDWATER PUMP WAS MANUALLY TRIPPED. THE POTENTIAL FOR THIS TRIP WAS ANTICIPATED IN THE TEST. THE PLANT WAS STABILIZED IN MODE 3, AND AN OPERATOR DISCOVERED 'B' AND 'D' MAIN STEAM NONRETURN CHECK VALVES HAD FAILED TO CLOSE. THE VALVES WERE CLOSED MANUALLY. THE VALVES WERE MODIFIED DURING THE 1984 REFUELING OUTAGE TO PREVENT RECURRENCE. SINCE THE PLANT WAS SCHEDULED TO SHUT DOWN 4-27-84 FOR REFUELING, A PLANT TEST (TPT-69) WAS CONDUCTED TO EVALUATE THE CAPABILITY OF THE AUTOMATIC TURBINE GENERATOR RUNBACK FOLLOWING LOSS OF ONE MAIN FEED PUMP (MFP). THE RUNBACK AT A RATE OF 1% PER SEC TO A PLATEAU LOAD OF 70% IS INTENDED TO PREVENT A REACTOR TRIP FOLLOWING THE LOSS OF ONE MFP. THE REACTOR WAS AT 100% POWER WHEN THE NORTH MFP WAS MANUALLY TRIPPED AT 6:26 PM, AND 56 SECS LATER THE REACTOR AUTOMATICALLY TRIPPED ON 'C' SG LOW-LOW LEVEL. THE REACTOR HAD REACHED 78% POWER AT THE TIME OF THE TRIP. BY TEST PROCEDURE, NO OPERATOR ACTION WAS TAKEN FROM THE TIME THE PUMP WAS TRIPPED UNTIL THE REACTOR TRIPPED. THE TEST PROCEDURE COVERED THIS POTENTIAL TRIP AND WAS NOT AN UNANTICIPATED TRIP. THE PLANT WAS THEN STABILIZED IN MODE 3. THE RESULTS OF THE TEST ARE BEING ANALYZED TO DETERMINE HOW THE RUNBACK CIRCUITRY MIGHT BE MODIFIED TO ENSURE SG LEVELS WILL REMAIN HIGH ENOUGH TO PREVENT A REACTOR TRIP.

[138] TURKEY POINT 3 DOCKET 50-250 LER 84-022
DAILY CALIBRATION OF NUCLEAR POWER RANGE NOT PERFORMED.
EVENT DATE: 072184 REPORT DATE: 082084 NSSS: WE TYPE: PWR

(NSIC 191241) ON SATURDAY, JULY 21 AND SUNDAY, JULY 22, THE DAILY CALIBRATION OF THE NUCLEAR POWER RANGE (THERMAL POWER CALCULATION) WAS NOT PERFORMED AS REQUIRED BY TECH SPEC 4.1, TABLE 4.1-1, ITEM 1 FOR UNIT 3 AND 4, RESPECTIVELY. THE ROOT CAUSE WAS A LICENSED OPERATOR OVERSIGHT THAT RESULTED IN THE CALCULATION NOT BEING DONE WHILE PERFORMING OPERATING PROCEDURE 0204.2, SCHEDULE OF PERIODIC TESTS, CHECKS, AND OPERATING EVALUATIONS. THE MISSED CALCULATIONS WERE NOT DISCOVERED UNTIL MONDAY MORNING, JULY 23, 1984. IMMEDIATE CORRECTIVE ACTIONS TAKEN WERE THE FOLLOWING: 1) A CHECK WAS MADE TO SEE IF THE CALCULATION HAD BEEN DONE FOR UNIT 3 ON JULY 22. IT HAD BEEN COMPLETED AND REVEALED NO ABNORMALITIES. 2) A CHECK WAS MADE TO SEE IF THE CALCULATIONS HAD BEEN COMPLETED FOR BOTH UNIT 3 AND 4 ON MONDAY, JULY 23, 1984. THE CALCULATIONS HAD BEEN COMPLETED AND REVEALED NO ABNORMALITIES. 3) AN ADDITIONAL CALCULATION WAS DONE FOR UNIT 4 ON MONDAY, JULY 23, 1984, AND REVEALED NO ABNORMALITIES. 4) SUPERVISORY DISCUSSIONS WERE HELD WITH THE LICENSED OPERATOR AND PLANT SUPERVISOR - NUCLEAR ON THE IMPORTANCE OF PERFORMING THE REQUIRED SURVEILLANCES AND UNDERSTANDING THE SIGNIFICANCE OF THEIR ACTIONS. SIMILAR OCCURRENCES: LER 250-80-012.

[139] TURKEY POINT 3 DOCKET 50-250 LER 84-023
TURBINE RUNBACK DUE TO ROD DROP.
EVENT DATE: 082284 REPORT DATE: 092184 NSSS: WE TYPE: PWR
VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 191341) ON AUGUST 22, 1984, WHILE UNIT 3 WAS AT 100% POWER, A TURBINE RUNBACK TO 45% POWER OCCURRED. THE ROOT CAUSE WAS DETERMINED TO STEM FROM A DROPPED CONTROL ROD IN SHUTDOWN BANK A. THE DROPPED ROD WAS CAUSED BY A BLOWN STATIONARY GRIPPER FUSE. ALL EQUIPMENT FUNCTIONED AS DESIGNED ON INITIATION OF THE ENGINEERED SAFETY FEATURE ACTUATION SIGNAL (ESFAS). IMMEDIATE CORRECTIVE ACTIONS INCLUDED: 1) STABILIZING THE UNIT AT 45% POWER, 2) HAVING I AND C PERSONNEL IDENTIFY THE CAUSE OF THE DROPPED ROD AND AFFECTING REPAIRS, AND 3) CALCULATING QUADRANT TO AVERAGE POWER TILT AND REDUCING NIS POWER RANGE HIGH NEUTRON FLUX TRIP SETPOINT TO 75% POWER AS REQUIRED BY TECH SPECS. A SIGNIFICANT EVENT NOTIFICATION WAS MADE TO NRCOC VIA ENS IN ACCORDANCE WITH 10 CFR 50.72. SIMILAR OCCURRENCES: LER 251-83-008, LER 250-83-005 AND LER 250-80-022.

[140] TURKEY POINT 4 DOCKET 50-251 LER 84-016
ERROR IN INSTALLATION OF HOTWELL REJECT REGULATOR CAUSES INITIATION OF AFW SYSTEM.
EVENT DATE: 062484 REPORT DATE: 090484 NSSS: WE TYPE: PWR
VENDOR: BLACK-SIVALS-BRYSON

(NSIC 191342) ON JUN 24, 1984, MANUAL INITIATION OF THE AUX FEEDWATER (AFW) SYSTEM OCCURRED. THE AFW SYSTEM WAS MANUALLY STARTED IN ANTICIPATION OF A FEEDWATER PUMP TRIP DUE TO LOW SUCTION PRESSURE. THE UNIT WAS DECREASING POWER BECAUSE OF OIL CONTROL PROBLEMS CAUSING CONTROL VALVE OSCILLATIONS ON THE TURBINE-GENERATOR. THE LEVEL IN THE HOTWELL BEGAN DECREASING AND AS THE LEVEL GOT CLOSE TO 10%, THE AFW SYSTEM WAS MANUALLY STARTED TO HELP MAINTAIN HOTWELL LEVEL BY REDUCING THE REQUIRED MAIN FEEDWATER FLOW. THE HOTWELL REJECT REGULATOR, LCV-1500, WAS FOUND TO HAVE FAILED OPEN AND WAS ISOLATED. ISOLATION OF THE REJECT REGULATOR CAUSED THE HOTWELL LEVEL TO BEGIN INCREASING AND THE AFW PUMPS WERE SECURED. IMMEDIATE CORRECTIVE ACTIONS INCLUDED STABILIZING THE UNIT IN A HOT SHUTDOWN CONDITION TO RESOLVE THE TURBINE CONTROL PROBLEMS AND HAVING MAINTENANCE PERSONNEL REPAIR THE HOTWELL REJECT REGULATOR. ALSO, A LETTER WAS SENT TO ALL OPERATIONS PERSONNEL CLARIFYING THE REQUIREMENTS FOR SIGNIFICANT EVENT NOTIFICATIONS OUTLINED IN ADMINISTRATIVE PROCEDURE 0103.12, NOTIFICATION OF SIGNIFICANT EVENTS TO NRC. SIMILAR OCCURRENCES: NONE. SUBSEQUENT REVIEW OF THE SEQUENCE OF EVENTS AND DISCUSSIONS WITH THE USNRC SENIOR RESIDENT INSPECTOR

DETERMINED THAT THE EVENT WAS REPORTABLE AND A SIGNIFICANT EVENT NOTIFICATION WAS MADE TO THE NRCOC VIA ENS PER 10 CFR 50.72(B)(2)(II) ON 8-2-84.

[141] TURKEY POINT 4 DOCKET 50-251 LER 8 -017
REACTOR TRIP FROM LOSS OF START-UP TRANSFORMER.
EVENT DATE: 080784 REPORT DATE: 090684 NSSS: WE TYPE: PWR

(NSIC 191343) ON 8-7-84, WITH BOTH UNIT 3 AND 4 AT 100% POWER, UNIT 4 EXPERIENCED A REACTOR TRIP COINCIDENT WITH A LOSS OF THE UNIT 3 START-UP TRANSFORMER. THE ROOT CAUSE WAS DETERMINED TO STEM FROM AN INCORRECT SWITCHING ORDER THAT, WHEN EXECUTED FROM THE FOSSIL UNITS 1 AND 2 CONTROL ROOM, CAUSED THE UNIT 3C TRANSFORMER TO BE DE-ENERGIZED, THUS, DE-ENERGIZING THE 4C 4KV BUS. THE 4B SG FEED PUMP AND 4C CONDENSATE PUMP ARE POWERED BY THE 4C BUS AND EACH, THEREFORE, TRIPPED. THE UNIT 4 REACTOR TRIP OCCURRED WHEN THE REACTOR PROTECTION LOGIC OF STEAM FLOW GREATER THAN FEED FLOW, COINCIDENT WITH SG LOW LEVEL FOR A SG WAS MADE UP, CAUSED BY THE FEEDWATER FLOW REDUCTION. THE SOURCE OF OFFSITE POWER, THAT WAS INADVERTENTLY DISCONNECTED, SUPPLIES POWER TO THE UNIT 3C TRANSFORMER (WHICH POWERS UNIT 4C BUS) AND THE UNIT 3 START-UP TRANSFORMER. UNIT 4 WAS STABILIZED AND POWER WAS RESTORED TO THE UNIT 3 START-UP TRANSFORMER, UNIT 3C TRANSFORMER AND TO THE UNIT 4C BUS SHORTLY AFTER THE REACTOR TRIP. ALL EQUIPMENT FUNCTIONED AS DESIGNED ON INITIATION OF THE ENGINEERED SAFETY FEATURE ACTUATION SIGNAL (ESFAS). SIMILAR OCCURRENCES: 250-84-007.

[142] TURKEY POINT 4 DOCKET 50-251 LER 84-019
DAILY CALIBRATION OF NUCLEAR POWER RANGE NOT PERFORMED.
EVENT DATE: 090184 REPORT DATE: 100184 NSSS: WE TYPE: PWR

(NSIC 191344) ON 9-1-84, WHILE UNIT 4 WAS AT 100% POWER, THE DAILY CALIBRATION OF THE NUCLEAR POWER RANGE (THERMAL POWER CALCULATION) WAS NOT PERFORMED AS REQUIRED BY TECH SPEC 4.1, TABLE 4.1-1, ITEM 1. THE ROOT CAUSE WAS A LICENSED OPERATOR OVERSIGHT THAT RESULTED IN THE CALCULATION NOT BEING DONE WHILE PERFORMING OPERATING PROCEDURE 0204.2, SCHEDULE OF PERIODIC TESTS, CHECKS, AND OPERATING EVOLUTIONS. THE MISSED CALCULATION WAS NOT DISCOVERED UNTIL TUES MORNING, 9-4-84. IMMEDIATE CORRECTIVE ACTIONS TAKEN WERE THE FOLLOWING: 1) IT WAS DISCOVERED THAT A THERMAL CALORIMETRIC HAD BEEN RUN USING THE DDPS PROGRAM CAL ON SATURDAY MORNING, 9-1-84. USING THIS CALCULATION AND THE NIS POWER RANGE READINGS FOR THE SAME TIME YIELDED A DIFFERENCE FOR THE CALORIMETRIC THAT WAS WITHIN THE PLUS OR MINUS 1% ACCEPTANCE CRITERIA FOR THE CALORIMETRIC. 2) OPERATING PROCEDURE 12304.3, POWER RANGE NUCLEAR INSTRUMENTATION SHIFT CHECKS AND DAILY CALIBRATIONS, HAS BEEN REVISED TO REQUIRE THE THERMAL POWER CALCULATION TO BE COMPLETED BEFORE DOING THE SHIFT CHECK OF THE NIS. ALSO, A SIGN-OFF HAS BEEN ADDED TO THE DAY SHIFT OF THE NIS TO INDICATE THAT THE THERMAL POWER CALCULATION HAS BEEN COMPLETED. 3) SUPERVISORY DISCUSSIONS WERE HELD WITH THE LICENSED OPERATOR AND PLANT SUPERVISOR - NUCLEAR ON THE IMPORTANCE OF PERFORMING THE REQUIRED SURVEILLANCES AND UNDERSTANDING THE SIGNIFICANCE OF THEIR ACTIONS. SIMILAR LERS: 250-84-022 AND 250-80-012.

[143] VERMONT YANKEE DOCKET 50-271 LER 84-011 REV 1
UPDATE ON LEAKING CONTAINMENT ISOLATION VALVES.
EVENT DATE: 061684 REPORT DATE: 081684 NSSS: GE TYPE: BWR
VENDOR: ALLIS CHALMERS
ANCHOR/DARLING VALVE CO.

(NSIC 191247) WHILE PERFORMING TYPE C LEAK RATE TESTING, CONTAINMENT ISOLATION VALVES MSIV-86B, CRD-412A, PCAC-V16-19-8, FDW-96A AND CA-89C (MAIN STEAM ISOLATION, CONTROL ROD DRIVE, COMBUSTIBLE GAS CONTROL, MAIN FEEDWATER, AND ESSENTIAL AIR) WERE FOUND TO HAVE SEAT LEAKAGE ABOVE THAT PERMITTED BY TECH SPEC SECTION 3.7.A.4. THIS RESULTED IN THE TOTAL APPRNDIX J TYPE B AND C LIMIT OF

14.75 LBM/HR BEING EXCEEDED WHICH DOES NOT MEET TECH SPEC SECTION 3.7.A.3 REQUIREMENTS. (BY PROCEDURE, VERMONT YANKEE USES THE MAXIMUM PATHWAY LEAKAGE IN CALCULATING TOTAL PENETRATION LEAKAGE.) VERMONT YANKEE HAS PERFORMED MAINTENANCE ON ALL OF THE ABOVE VALVES AND RETESTED THEM TO ENSURE THAT BOTH TOTAL PENETRATION AND INDIVIDUAL VALVE SEAT LEAKAGES ARE WITHIN TECH SPECS.

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

(NSIC 191248) WHILE PERFORMING FUEL MOVES DURING SHUTDOWN, THE PIPING CONTRACTOR PREPARED TO PERFORM WORK ON THE SERVICE WATER PORTION OF THE '1B' REACTOR BLDG AIR CONDITIONING (RBAC) UNIT. THE CONTRACTOR DID NOT PROPERLY TAG OUT THE RBAC UNIT AS REQUIRED BY PLANT PROCEDURES. THIS RESULTED IN THE "2" RBAC SUPPLY LINE INSPIRATING FOR 4 HRS INTO THE SERVICE WATER SYSTEM AND EXHAUSTING AT THE DISCHARGE STRUCTURE. THE SHIFT SUPERVISOR NOTED THE PROBLEM DURING A TOUR OF THE REACTOR BLDG. HE DETERMINED THAT THIS FLOW COULD BYPASS STANDBY GAS TREATMENT AND IMMEDIATELY 1) DECLARED SECONDARY CONTAINMENT POTENTIALLY INOPERABLE, 2) STOPPED ALL FUEL MOVES AND 3) PROPERLY ISOLATED THE SYSTEM. SUBSEQUENT ANALYSIS SHOWED THAT OPERATIONS WOULD HAVE BEEN ABLE TO PROPERLY RESPOND TO A REFUEL ACCIDENT (HAD IT OCCURRED DURING THIS 4 HR PERIOD) WITHOUT SIGNIFICANT RELEASE TO THE ENVIRONMENT.

[145] VERMONT YANKEE DOCKET 50-271 LER 84-016
REACTOR SCRAMS WHILE SHUTDOWN FOR MAINTENANCE.
EVENT DATE: 072884 REPORT DATE: 082484 NSSS: GE TYPE: BWR

(NSIC 191292) ON 7-28-84 THE REACTOR WAS SHUT DOWN WITH THE MODE SWITCH IN SHUTDOWN. MAINTENANCE WAS BEING PERFORMED ON THE REACTOR PROTECTIVE SYSTEM MOTOR GENERATORS (RPSMG). THE 'B' SIDE OF THE REACTOR PROTECTIVE SYSTEM WAS BEING POWERED FROM THE ALTERNATE SOURCE. WHEN 'A' RECIRC MG SET WAS STARTED A VOLTAGE DIP ON THE 480V US CAUSED THE ALTERNATE SUPPLY BREAKER TO TRIP RESULTING IN A REACTOR SCRAM.

[146] VERMONT YANKEE DOCKET 50-271 LER 84-017
SERVICE WATER SAMPLING NOT PERFORMED.
EVENT DATE: 073084 REPORT DATE: 082984 NSSS: GE TYPE: BWR

(NSIC 191293) THE SERVICE WATER RADIATION MONITOR, RAM 17-332, WAS TAKEN OUT OF SERVICE FOR THE INSTALLATION OF A NEW DISCHARGE LINE FOR THE TURBINE BLDG CLEAN EQUIPMENT AND FLOOR DRAIN SUMP PUMPS. AS REQUIRED BY TECH SPEC SECTION 3.9.C.2, DAILY SAMPLING OF THE SERVICE WATER SYSTEM COMMENCED AND SAMPLES WERE ANALYZED FOR GROSS ACTIVITY. SAMPLES WERE NOT TAKEN ON 7-26-84 AND 7-27-84. SAMPLING WAS RESTARTED ON 7-28-84 AND CONTINUED DAILY UNTIL 7-30-84 WHEN THE RADIATION MONITOR WAS RETURNED TO SERVICE. ANALYSIS OF THE SAMPLES TAKEN DID NOT REVEAL OTHER THAN NORMAL READINGS.

[147] VERMONT YANKEE DOCKET 50-271 LER 84-018
REACTOR SCRAM WHILE SHUT DOWN.
EVENT DATE: 080184 REPORT DATE: 083184 NSSS: GE TYPE: BWR

(NSIC 191249) ON 8-1-84, WITH THE REACTOR SHUT DOWN AND WHILE SHIFTING 480V VITAL BUSES, A VOLTAGE TRANSIENT CAUSED AN INADVERTENT HI-HI TRIP FROM APRM 'C' WHICH RESULTED IN A REACTOR SCRAM. AFTER VERIFYING THE CAUSE, THE SCRAM WAS RESET.

[148] VERMONT YANKEE DOCKET 50-271 LER 84-019
LOOSE CIRCUIT BOARD MOUNTING SCREWS IN ROSEMOUNT TRANSMITTERS.
EVENT DATE: 080884 REPORT DATE: 090784 NSSS: GE TYPE: BWR
VENDOR: ROSEMOUNT, INC.

(NSIC 191250) AS A FOLLOW UP TO AN OCCURRENCE ON 6-15-84 WHERE INDICATION WAS LOST FROM A ROSEMOUNT 1152T0280 LEVEL TRANSMITTER DUE TO THE CIRCUIT BOARD MOUNTING SCREWS COMING LOOSE, MOUNTING SCREWS ON ALL OTHER MODEL 1152T0280 TRANSMITTERS WERE CHECKED FOR TIGHTNESS. LOOSE SCREWS WERE FOUND IN 37% OF THE INSTALLED TRANSMITTERS. ALL SCREWS WERE RETIGHTENED AND PROPER CALIBRATION WAS VERIFIED.

[149] WPPSS 2 DOCKET 50-397 LER 84-078
UNSCHEDULED ACTUATIONS OF CONTROL ROOM EMERGENCY FILTRATION UNITS.
EVENT DATE: 030184 REPORT DATE: 082484 NSSS: GE TYPE: BWR
VENDOR: KAMAN SCIENCES CORP.

(NSIC 188553) THE CONTROL ROOM EMERGENCY FILTRATION UNITS WERE AUTOMATICALLY ACTUATED ON 8-1-84, 8-7-84, AND 8-8-84 DUE TO SPIKES ON THE CORRESPONDING CONTROL ROOM OUTSIDE AIR RADIATION MONITORS. IN RESPONSE TO EACH EVENT, AFTER VERIFYING THAT RADIATION LEVELS WERE NOT ABOVE NORMAL BACKGROUND, THE EMERGENCY FILTRATION UNITS AND THE RADIATION MONITORS WERE RESET AND RETURNED TO A NORMAL LINEUP. THESE EVENTS WERE VERBALLY REPORTED TO THE NRC (EVENT 1 AT 0105 HRS 8-1-84; EVENT 2 AT 2110 HRS 8-1-84; EVENT 3 AT 1050 HRS 8-7-84; EVENT 4 AT 0919 HRS 8-8-84) IN ACCORDANCE WITH 10CFR50.72(B)(2)(II).

[150] WPPSS 2 DOCKET 50-397 LER 84-082
RCIC ISOLATES TWICE ON HIGH STEAM FLOW.
EVENT DATE: 080284 REPORT DATE: 083084 NSSS: GE TYPE: BWR
VENDOR: BARTON INSTRUMENT CO., DIV OF ITT

(NSIC 191318) ON 8-2-84 AND 8-23-84 THE REACTOR WAS SHUT DOWN WITH THE REACTOR CORE ISOLATION COOLING (RCIC) SYSTEM IN USE TO MAINTAIN REACTOR WATER LEVEL. ON BOTH DATES SPURIOUS HIGH STEAM FLOW ISOLATIONS OCCURRED. THE ISOLATIONS OCCURRED AT REACTOR PRESSURES OF BETWEEN 150 TO 300 PSIG. IT WAS VERIFIED THAT NO STEAM LEAKAGE HAD OCCURRED. AFTER THE 8-2-84 EVENT THE CONDENSATE SYSTEM WAS PLACED INTO OPERATION TO PROVIDE REACTOR WATER MAKEUP. FOLLOWING THE 8-23-84 EVENT THE RCIC WAS RETURNED TO SERVICE.

[151] WPPSS 2 DOCKET 50-397 LER 84-084
UNUSUAL EVENT DECLARED DUE TO OFFSITE FIRE.
EVENT DATE: 081284 REPORT DATE: 083084 NSSS: GE TYPE: BWR

(NSIC 191272) AT 1735 HRS ON 8-12-84, A GRASS FIRE WHICH WAS APPROACHING THE PLANT BOUNDARIES CAUSED AN UNUSUAL EVENT TO BE DECLARED DUE TO THE POTENTIAL FOR LOSS OF OFFSITE ELECTRICAL POWER SUPPLIES. DOE FIREFIGHTING CREWS COMBATED THE FIRE AND AT 2000 HRS THE UNUSUAL EVENT WAS TERMINATED. NO ACTUAL LOSS OF OFFSITE ELECTRICAL POWER SUPPLY WAS INCURRED. NOTIFICATION WAS PROVIDED TO THE NRC VIA ENS AT 1745 HRS ON 8-12-84.

[152] WPPSS 2 DOCKET 50-397 LER 84-081
REACTOR WATER CLEANUP AND REACTOR CORE ISOLATION COOLING SYSTEMS ISOLATE DURING CALIBRATION AND SURVEILLANCE.
EVENT DATE: 081684 REPORT DATE: 083084 NSSS: GE TYPE: BWR
VENDOR: KAMAN SCIENCES CORP.
RILEY COMPANY, THE - PANALARM DIVISION

(NSIC 191317) A REACTOR WATER CLEANUP (RWCU) SYSTEM ISOLATION OCCURRED ON 8-16-84 DURING RECALIBRATION OF A LEAK DETECTION (LD) SYSTEM TEMPERATURE MONITOR. REACTOR CORE ISOLATION COOLING (RCIC) AND RWCU SYSTEM ISOLATIONS OCCURRED ON 8-18-84 DURING ROUTINE SURVEILLANCE OF A LD SYSTEM TEMPERATURE MONITOR. BOTH ISOLATIONS OCCURRED DUE TO THE ISOLATION LOGIC NORMAL/TEST SWITCH BEING IN THE NORMAL POSITION DURING THE CALIBRATION AND SURVEILLANCE. IN BOTH INSTANCES THE ISOLATION SIGNALS WERE RESET AND NORMAL RWCU OPERATIONS CONTINUED. DURING THE 8-18-84 EVENT, UPON RESET OF THE RCIC TURBINE, A CONTROL ROOM EMERGENCY FILTRATION UNIT (AN ESF SYSTEM) AUTOMATICALLY STARTED DUE TO A SPURIOUS SPIKE ON THE CORRESPONDING OUTSIDE AIR RADIATION MONITOR. RADIATION LEVELS WERE VERIFIED TO BE NORMAL, THE ALARM RESET AND THE EMERGENCY FILTRATION UNIT RETURNED TO NORMAL STATUS.

[153] YANKEE ROWE DOCKET 50-029 LER 84-011 REV 1
UPDATE ON PRESSURIZER CODE SAFETY VALVE SETPOINT TOLERANCE ERROR.
EVENT DATE: 070384 REPORT DATE: 081784 NSSS: WE TYPE: PWR

(NSIC 191236) DURING A REVIEW OF DOCUMENTATION ACCOMPANYING THE RECENT REPLACEMENT OF THE PRESSURIZER CODE SAFETY VALVES (SAFETY VALVE), THE LIFT SETPOINT OF SAFETY VALVE PR-SV-182 WAS DETERMINED TO EXCEED THE TECH SPEC TOLERANCE. THE TECH SPECS SETPOINT TOLERANCE (+0% -3%) WAS SPECIFIED IN THE PROCUREMENT DOCUMENT, THE MANUFACTURER SET THE VALVES IN ACCORDANCE WITH THE ASME BOILER AND PRESSURE VESSEL (B&PV) CODE SECTION III TOLERANCE OF PLUS OR MINUS 1%. COMMUNICATION WITH THE COMMISSION DETERMINED THE CORRECTIVE ACTION OF THIS ERROR, A PROPOSED CHANGE TO THE TECH SPEC IS ACCEPTABLE. EACH OF THE 2 SAFETY VALVES IS CAPABLE OF PROVIDING THE RELIEF CAPACITY NECESSARY TO PREVENT THE MAIN COOLANT SYSTEM PRESSURE EXCEEDING 2735 PSIG.

[154] ZION 1 DOCKET 50-295 LER 84-021
CONTAINMENT INTEGRATED LEAKRATE TEST FOUND UNACCEPTABLE.
EVENT DATE: 071884 REPORT DATE: 081684 NSSS: WE TYPE: PWR

(NSIC 191360) ON JULY 18, 1984, AFTER AN EXAMINATION OF THE 1981 AND 1983 INTEGRATED LEAKRATE TESTS OF UNIT 1, THE NUCLEAR REGULATORY COMMISSION DETERMINED THAT THE CONTAINMENT STRUCTURE FAILED TO MEET THE REQUIREMENTS OF 10CFR50 APPENDIX J. SINCE UNDER THEIR DETERMINATION THE CONTAINMENT INTEGRITY COULD NOT BE PROVEN, THE UNIT WAS CONSIDERED IN VIOLATION OF TECH SPEC 3.9.5A. AT 1600 HRS., THE UNIT OPERATOR WAS INSTRUCTED TO PLACE THE UNIT IN HOT SHUTDOWN WITHIN 4 HRS. AND WITHIN AN ADDITIONAL 48 HRS. BE IN COLD SHUTDOWN AS PER TECH SPEC 3.0.3. DURING THE PERIOD OF JULY 27 TO AUGUST 1, AN INTEGRATED LEAKRATE TEST WAS SUCCESSFULLY COMPLETED ON THE UNIT 1 CONTAINMENT. THE UNIT, SHUT DOWN PRIMARILY FOR THIS TEST, CHARACTERIZED THE "AS FOUND" AND THE "AS LEFT" CONTAINMENT CONDITION. THIS DEMONSTRATES THAT THE UNIT 1 CONTAINMENT IS CURRENTLY LEAKTIGHT AND WAS IN THAT CONDITION DURING THE LAST CYCLE. AN EVALUATION OF THE ADEQUACY OF THE 1981 AND 1983 TESTS IS CONTINUING.

[155] ZION 1 DOCKET 50-295 LER 84-022
MISSED SURVEILLANCE OF RADIATION MONITOR.
EVENT DATE: 073084 REPORT DATE: 083184 NSSS: WE TYPE: PWR

(NSIC 191297) DURING COLD SHUTDOWN ON UNIT 1, THE WEEKLY PARTICULATE, IODINE AND NOBLE GAS SAMPLES FOR CONTAINMENT PURGE RADIATION MONITOR 1RT-PR09 WERE NOT COLLECTED ON SCHEDULE, A VIOLATION OF TECH SPEC 4.12.1.B.1. THE SAMPLES WERE NOT PULLED BECAUSE THE MONITOR IS LOCATED IN A ROOM WHICH HAD BEEN DESIGNATED AN EXCLUSION AREA BEGINNING 7-27-84 UNTIL 8-2-84 DUE TO A CONTAINMENT INTEGRATED LEAKRATE TEST. THE SAMPLES WERE OBTAINED IMMEDIATELY AFTER COMPLETION OF THE TEST. THE MONITOR WAS OPERABLE DURING THE TEST.

[156] ZION 1 DOCKET 50-295 LER 84-026
LOSS OF GAS WHILE WORKING ON LETDOWN RELIEF TO VOLUME CONTROL TANK.
EVENT DATE: 080384 REPORT DATE: 090584 NSSS: WE TYPE: PWR
VENDOR: ASCO VALVES

(NSIC 191363) WHILE PERFORMING MAINTENANCE ON 1VC8119, LETDOWN RELIEF VALVE TO THE VCT, A LOSS OF GAS FROM THE WASTE GAS HEADER WAS NOTICED. AN INVESTIGATION OF THE OUT-OF-SERVICE VALVE LINE-UP SHOWED THAT GAS FROM THE WASTE GAS HEADER APPEARED TO BE LEAKING THRU 1VC8101 INTO THE VCT AND OUT THE OPEN LINE TO 1VC8119. MANUAL VALVE 1VC8413 WAS CLOSED AND THE GAS LOSS STOPPED. THE STATION IS INVESTIGATING THE POSSIBILITY OF CHANGING 1VC8101 TO A NEW TYPE VALVE OR REPLACING WITH AN IDENTICAL VALVE AND WILL UTILIZE MANUAL ISOLATION VALVES WHEN AVAILABLE IN SIMILAR SITUATIONS.

[157] ZION 1 DOCKET 50-295 LER 84-023
FAILURE OF SAFETY-RELATED SNUBBERS.
EVENT DATE: 081584 REPORT DATE: 091384 NSSS: WE TYPE: PWR
VENDOR: GRINNELL CORP.

(NSIC 191361) DURING VISUAL INSPECTIONS OF SEISMIC SUPPRESSORS (SNUBBERS) PER TECH SPEC 4.22.1.D, TWO SNUBBERS WERE FOUND INOPERABLE. FAILURE OF THE SNUBBERS TO LOCK-UP WITHIN ACCEPTED VELOCITY LIMITS WAS DUE TO POOR SEAL CONDITIONS. ALL AFFECTED SNUBBERS WERE REBUILT WITH NEW ETHYLENE PROPYLENE SEALS, TESTED AND REINSTALLED. THE SNUBBERS ARE DESIGNED FOR A LOW PROBABILITY SEISMIC EVENT WHICH DID NOT OCCUR.

[158] ZION 1 DOCKET 50-295 LER 84-024
FAILURE TO HAVE ECCS EQUIPMENT IN SERVICE.
EVENT DATE: 082184 REPORT DATE: 091384 NSSS: WE TYPE: PWR

(NSIC 191362) DURING THE HEAT-UP ON UNIT 1 PER THE GOP 1, THE PRIMARY SYSTEM PRESSURE WAS ALLOWED TO EXCEED 1000 PSIG PRIOR TO CLEARING AND PLACING THE ACCUMULATORS, S.I. PP, CHARGING PP AND CONTAINMENT SPRAY PP'S IN SERVICE. WHICH, PER THE GOP, ARE TO BE PLACED INTO SERVICE AS PRIMARY SYSTEM PRESSURE APPROACHES 1000 PSIG. THE LICENSED OPERATOR FAILED TO DO THIS. ALL COMPONENTS WERE IN PROPER POSITION BY THE TIME SYSTEM PRESSURE HAD REACHED 1030 PSIG. THE NSO INVOLVED IN THE INCIDENT WAS CAUTIONED IN A UNION-MANAGEMENT MEETING ABOUT PROCEDURE ADHERENCE. THE NSO WILL ALSO BE WRITING A PROCEDURE CHANGE TO BETTER FLAG THE OPERATIONS NEEDED AT 1000 PSIG.

[159] ZION 2 DOCKET 50-304 LER 84-023
FAILURE TO PERFORM REACTOR COOLANT SURVEILLANCE.
EVENT DATE: 081684 REPORT DATE: 091384 NSSS: WE TYPE: PWR

(NSIC 191364) DURING UNIT 2 REACTOR STARTUP AND ESCALATION TO 37% POWER, A THERMAL POWER CHANGE GREATER THAN 15% OCCURRED IN ONE HOUR. THE POWER CHANGE OCCURRED AT 2300 ON AUGUST 15, 1984. TECH SPEC TABLE 4.3.6-1 REQUIRES A SAMPLE OF REACTOR COOLANT FOR IODINE CONCENTRATION TO BE OBTAINED 2 TO 6 HOURS FOLLOWING THE CHANGE IN POWER. THE PROPER PERSONNEL WERE NOT NOTIFIED OF THE POWER CHANGE AND THUS A SAMPLE WAS NOT OBTAINED. A REACTOR COOLANT SAMPLE WAS OBTAINED AT 0815 ON AUGUST 16, 1984, WAS ANALYZED FOR IODINE CONCENTRATION, AND SHOWED NO CHANGE IN FUEL CONDITION. THERE HAVE BEEN NO PREVIOUS OCCURRENCES. THE APPROPRIATE START-UP PROCEDURES WILL BE REVISED TO ALERT THE RAD-CHEM DEPARTMENT TO TAKE SAMPLES.

COMPONENT INDEX

This index is based on component and component-related keywords assigned by the NSIC staff when the summaries of the LERs are prepared for computer entry.

COMPONENT INDEX

SYSTEM INDEX

This index is based on system and system-related keywords assigned by the NSIC staff when the summaries of the LERs are prepared for computer entry.

SYSTEM INDEX

KEYWORD INDEX

This index is based on the keywords assigned by the NSIC staff when the summaries of the LERs are prepared for computer entry.

KEYWORD INDEX

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NRC FORM 335 (2-84) NRCM 1102, 3201, 3202

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SEE INSTRUCTIONS ON THE REVERSE

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13. ABSTRACT (200 words or less)

This monthly report contains Licensee Event Report (LER) operational information that was processed into the LER data file of the Nuclear Safety Information Center (NSIC) during the one month period identified on the cover of the document. The LERs, from which this information is derived, are submitted to the Nuclear Regulatory Commission (NRC) by nuclear power plant licensees in accordance with federal regulations. Procedures for LER reporting for 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 50.73-144) 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 the chronologically by event date for each facility. Component, system, keyword, system and general keyword indexes are assigned by the computer using correlation tables from the Sequence Coding and Search System.

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