
Licensee Event Report (LER) Compilation

For month of July 1984

Oak Ridge National Laboratory

Prepared for
U.S. Nuclear Regulatory
Commission

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Abstract

This monthly report contains Licensee Event Report (LER) operational information that was processed into the LER data file of the Nuclear Safety Information Center (NSIC) during the one month period identified on the cover of the document. The LERs, from which this information is derived, are submitted to the Nuclear Regulatory Commission (NRC) by nuclear power plant licensees in accordance with federal regulations. Procedures for LER reporting for those events occurring prior to 1984 are described in NRC Regulatory Guide 1.16 and NUREG-0161, *Instructions for Preparation of Data Entry Sheets for Licensee Event Reports*. For those events occurring on and after January 1, 1984, LERs are being submitted in accordance with the revised rule contained in Title 10 Part 50.73 of the Code of Federal Regulations (10 CFR 50.73 - Licensee Event Report System) which was published in the Federal Register (Vol. 48, No. 144) on July 26, 1983. NUREG-1022, *Licensee Event Report System - Description of Systems and Guidelines for Reporting*, provides supporting guidance and information on the revised LER rule.

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

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[1] ARKANSAS NUCLEAR 1 DOCKET 50-313 LER 84-001
SAFETY RELATED SHOCK SUPPRESSOR (SNUBBER) FAILURE.
EVENT DATE: 032184 REPORT DATE: 042084 NSSS: BW TYPE: PWR
VENDOR: ITT GRINNELL

(NSIC 190118) DURING A SCHEDULED MID-CYCLE OUTAGE, VISUAL INSPECTION OF ALL SAFETY RELATED HYDRAULIC SHOCK SUPPRESSORS (SNUBBERS) WAS PERFORMED FOR VERIFICATION OF OVERALL INTEGRITY AND OPERABILITY. ADDITIONALLY, ALL SNUBBERS WITH A RATED CAPACITY LESS THAN 50,000 LBS WERE FUNCTIONALLY TESTED FOR OPERABILITY INCLUDING VERIFICATION OF PROPER PISTON MOVEMENT, LOCK UP AND BLEED. ON 3/21/84, DURING FUNCTIONAL TESTING, A PRESSURIZER SPRAY LINE SNUBBER MANUFACTURED BY ITT GRINNELL FAILED TO MEET LOCK-UP TEST ACCEPTANCE CRITERIA. OF THE 52 SNUBBERS TESTED, 6 ADDITIONAL ITT GRINNELL SNUBBERS FAILED TO MEET FUNCTIONAL TESTING ACCEPTANCE CRITERIA (2 WITH DEVIATIONS FOR ACCEPTABLE LOCK-UP VELOCITY AND 4 WITH DEVIATIONS FOR ACCEPTABLE BLEED VELOCITY). ALL FUNCTIONALLY TESTED SNUBBERS WERE DISASSEMBLED, REPURBISHED, RETESTED AND RETURNED TO SERVICE. THESE SNUBBERS ARE DESIGNED FOR LOW PROBABILITY SEISMIC EVENTS WHICH DID NOT OCCUR AND THE OBSERVED DEGRADATION IN SNUBBER PERFORMANCE IS NOT JUDGED TO AFFECT THE OPERABILITY OF THE AFFECTED SYSTEMS. THE EVENT DOES NOT APPEAR TO BE INDICATIVE OF A GENERIC PROBLEM, THEREFORE THIS EVENT IS REPORTED FOR INFORMATION.

[2] ARKANSAS NUCLEAR 1 DOCKET 50-313 LER 84-003
DRIFT OF RCS PRESSURE TRANSMITTERS' INPUT TO ESAS.
EVENT DATE: 032884 REPORT DATE: 042084 NSSS: BW TYPE: PWR
VENDOR: FOXBORO CO., THE

(NSIC 189666) DURING ENGINEERED SAFEGUARDS ACTUATION SYSTEM (ESAS) CALIBRATION WHILE SHUTDOWN FOR A PLANNED MID-CYCLE OUTAGE, 3 REACTOR COOLANT SYSTEM (RCS) PRESSURE TRANSMITTERS WERE FOUND OUT OF TOLERANCE IN THE NONCONSERVATIVE DIRECTION. EACH PRESSURE TRANSMITTER PROVIDES INPUT TO ONE OF THE THREE ESAS CHANNELS. THE HIGH DRIFT OF THE FOXBORO MANUFACTURED TRANSMITTERS, MODEL E11GH, WOULD HAVE RESULTED IN ESAS ACTUATION ON LOW PRIMARY PRESSURE BY AS MUCH AS 22.75 PSIG BELOW THE TECH SPEC REQUIRED ACTUATION SETPOINT OF GREATER THAN OR EQUAL TO 1500 PSIG. ALL 3 INSTRUMENTS WERE CALIBRATED TO WITHIN ACCEPTABLE TOLERANCES.

[3] ARKANSAS NUCLEAR 1 DOCKET 50-313 LER 84-004
HIGH RCS PRESSURE REACTOR TRIP CAUSED BY MAIN FEEDWATER PUMP TRIP.
EVENT DATE: 042184 REPORT DATE: 051784 NSSS: BW TYPE: PWR

(NSIC 190114) APR 21, 1984, WHILE OPERATING AT 100% FULL POWER, AN ALARM CAME IN FOR THRUST BEARING WEAR ON ONE OF THE MAIN FEEDWATER PUMP TURBINES (K-2A). THE LEADS FOR THE ALARM/TRIP CIRCUITRY WERE LIFTED IN PREPARATION FOR CHECKING THE CIRCUITRY WHEN ONE OF THE LEADS CAME IN CONTACT WITH THE ADJACENT TERMINAL THEREBY COMPLETING THE TRIP CIRCUIT. K-2A TRIPPED AND A RUNBACK WAS INITIATED. REACTOR POWER WAS REDUCED TO 78% FP WHEN RCS PRESSURE REACHED THE HIGH PRESSURE TRIP SETPOINT. PLANT SYSTEMS RESPONDED TO THE TRIP SATISFACTORILY, AND TRIP RECOVERY WAS ROUTINE. AFTER THE TRIP, INSPECTION OF K-2A REVEALED THAT THE THRUST BEARING CLEARANCES HAD NOT CHANGED APPRECIABLY SINCE THE LAST INSPECTION. THE ALARM/TRIP CIRCUITRY AND THE ALARM/TRIP INSTRUMENTATION WERE CALIBRATED AND ASSOCIATED CIRCUITRY RETURNED TO SERVICE.

[4] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 84-010
CPC/COLSS NONCONSERVATIVE FXY CONSTANTS.
EVENT DATE: 020784 REPORT DATE: 041984 NSSS: CE TYPE: PWR

(NSIC 189738) AT 1430 ON MAR 20, 1984 ARKANSAS POWER AND LIGHT (AP&L) WAS NOTIFIED BY COMBUSTION ENGINEERING (CE) OF AN ERROR IN THE CECOR COMPUTER CODE. CECOR IS A CE COMPUTER CODE WHICH UTILIZES INCORE DETECTOR SIGNALS TO SYNTHESIZE

REACTOR CORE PARAMETERS (E.G. AXIAL AND RADIAL POWER DISTRIBUTION, AZIMUTHAL TILT AND FLUX PEAKING). THE CECOR COMPUTER CODE IS USED BY AP&L NUCLEAR ENGINEERING FOR BEGINNING OF CYCLE PHYSICS TESTING, TECH SPEC POWER DISTRIBUTION SURVEILLANCES AND CORE FOLLOW. THE SPECIFIC ERROR WAS INCORPORATION OF INCORRECT PIN-TO-BOX FACTORS INTO A CECOR COEFFICIENT LIBRARY. THESE FACTORS ARE USED TO DETERMINE PEAK PIN POWER FROM FUEL ASSEMBLY AVERAGE POWER. PEAK PIN POWER IS THEN UTILIZED TO DETERMINE FXY, THE PLANAR RADIAL PEAKING FACTOR. CALCULATIONS OF FXY WERE PERFORMED WITH CECOR AS PART OF CYCLE 4 STARTUP TESTING FOR RODDED AND UNRODDED CONDITIONS. AS A RESULT OF THE NONCONSERVATIVE CALCULATION OF THESE FXY VALUES, NONCONSERVATIVE ADDRESSABLE CONSTANTS WERE INPUT FOR FXY VERSUS ROD CONFIGURATION LOOKUP TABLES IN THE CORE PROTECTION CALCULATORS (CPC'S) AND CORE OPERATING LIMIT SUPERVISORY SYSTEM (COLSS). UPON NOTIFICATION OF THE ERROR, CONSERVATIVE VALUES FOR FXY CONSTANTS WERE IMMEDIATELY INCORPORATED INTO THE COLSS AND CPC'S. CALCULATIONS OTHER THAN FXY BY CECOR WERE NOT AFFECTED BY THIS ERROR.

[5] ARKANSAS NUCLEAR 2 DOCKET 50-368 LER 84-007
 REACTOR TRIPS ON LOW DNBR SIGNAL.
 EVENT DATE: 031084 REPORT DATE: 040684 NSSS: CE TYPE: PWR

(NSIC 189737) ON 3/10/84 AT 0551, UNIT 2 TRIPPED FROM APPROX. 10(-3)% FULL POWER DURING A CONTROLLED SHUTDOWN. THE CORE PROTECTION CALCULATORS (CPCS) GENERATED A LOW DNBR TRIP WHEN AN OUT OF RANGE VALUE OF LOCAL HEAT FLUX RESULTED IN A CALCULATED MINIMUM DNBR VALUE OF ZERO. THE CPCS CALCULATE LOCAL HEAT FLUX FOR 20 NODAL POINTS ALONG THE CORE LENGTH. A CONVERSION IS PERFORMED TO EXPAND THE 20 NODE LOCAL HEAT FLUX DISTRIBUTION. FOR THE PARTICULAR POWER LEVEL AND CONTROL ROD CONFIGURATION AT THE TIME OF THE TRIP, THE LOCAL HEAT FLUX DISTRIBUTION EXPANSION ALGORITHM CAUSED THE LOCAL HEAT FLUX AT THE END NODE #21 TO BE NEGATIVE. THE CPCS ARE FUNCTIONALLY DESIGNED TO CALCULATE A VALUE OF ZERO FOR MINIMUM DNBR WHEN CALCULATED LOCAL HEAT FLUX VALUES ARE LESS THAN OR EQUAL TO ZERO. PROCEDURE CHANGES HAVE BEEN MADE TO LIMIT CONTROL ELEMENT ASSEMBLY (CEA) INSERTION FOR OPERATIONS GREATER THAN 10(-4)% FULL POWER (POWER LEVEL AT WHICH CPCS TRIPS MAY BE BYPASSED).

[6] APNOLD DOCKET 50-331 LER 84-006 REV 1
 UPDATE ON DOCUMENTATION FOR CERTAIN DAMPERS DEFICIENT.
 EVENT DATE: 012684 REPORT DATE: 051584 NSSS: GE TYPE: BWR
 VENDOR: HILLS-MCCANNA COMPANY

(NSIC 190123) BY LETTERS DATED JAN 27, 1984 (NG-84-0436) AND JAN 30, 1984 (NG-84-0451), IOWA ELECTRIC PROVIDED WRITTEN NOTIFICATION TO THE NRC THAT CERTAIN VENTILATION DAMPER ACTUATORS WERE POTENTIALLY DEFICIENT IN MEETING OUR PURCHASE SPECIFICATIONS. SPECIFICALLY, ACTUATORS MANUFACTURED BY HILLS MCCANNA PROCURED THRU OUR ORIGINAL DAMPER VENDOR, AND REPLACEMENT ACTUATORS PROCURED DIRECTLY FROM HILLS MCCANNA APPEAR TO HAVE BEEN MANUFACTURED WITHOUT THE MANUFACTURER HAVING AN ACCEPTABLE QUALITY ASSURANCE PROGRAM. THESE ACTUATORS ARE USED IN VARIOUS SECONDARY CONTAINMENT AND CONTROL ROOM HABITABILITY VENTILATION SYSTEMS AT DAEC. PAST ACTUATOR PERFORMANCE AND REDUNDANT DAMPER ACTUATORS IN ALL APPLICATIONS PROVIDE REASONABLE ASSURANCE OF ACCEPTABLE ACTUATOR PERFORMANCE PENDING RESOLUTION OF DOCUMENTATION DISCREPANCIES. ENGINEERING ACTIVITIES ARE CONTINUING. AS OF APR 30, 1984, THE ENGINEERING EVALUATIONS CONCERNING THESE ACTUATORS HAVE BEEN COMPLETED. SEISMIC CALCULATIONS HAVE BEEN PERFORMED WHICH HAVE QUALIFIED THE ACTUATORS FOR SERVICE IN SAFETY RELATED SYSTEMS. THIS CONCLUDES THE WORK ON THE DEFICIENCIES DESCRIBED ABOVE.

(NSIC 1.9852) DURING NORMAL OPERATION WHILE PERFORMING SI 4.11.A.1.G (BUILDING HYDRAULIC PERFORMANCE VERIFICATION), IT WAS DETERMINED THAT UNIT 1, STATION CABLE TRAY FIXED SPRAY SYSTEM DID NOT MEET TECH SPEC REQUIREMENTS AS SHOWN IN TABLE 3.11.A. STATION WAS RETESTED WITHIN FOLLOWING 18 MONTHS (JAN 1984), AND FAILED AGAIN. A FIREWATCH WAS ESTABLISHED PER TECH SPEC 3.11.A.2. THERE ARE NO REDUNDANT SYSTEMS. CAUSE IN EACH CASE WAS APPARENT RESTRICTION IN SUPPLY LINE STRAINER (FISHER GOVERNOR PRE-FLO 260C) DUE TO BUILDUP OF SILT AND CLAM SHELLS. STRAINER WAS CLEANED, FLUSHED AND SATISFACTORILY RETESTED. STRAINERS ARE ROUTINELY INSPECTED AND CLEANED, AND NO PROBLEMS HAVE BEEN DETECTED. STATION II STRAINER WILL BE REMOVED AND CLEANED EVERY MONTH.

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

(NSIC 190229) ON 12/10/83, WITH UNIT 1 IN A REFUELING OUTAGE, AN OPERATOR OBSERVED RHR PUMP 1C MOTOR WAS SPARKING AND SMOKING. THE MOTOR WAS SHUT DOWN AND SUBSEQUENTLY RESTARTED. AFTER RESTARTING, THE MOTOR TRIPPED ON OVERCURRENT. WITH RHR LOOP II OUT-OF-SERVICE, ONLY RHR PUMP 1A, LOOP I, WAS OPERABLE. THIS EXCEEDED LIMIT OF LCO, TECH SPEC 3.5.B.9. LIMITS WERE EXCEEDED FOR 2 HRS. REACTOR VESSEL TEMPERATURE REMAINED WITHIN LIMITS REQUIRED BY TECH SPECS 3.6.A.3 AND .5. THE GE MODEL NUMBER 5K6348XC23A, 2000 HP, 3 PHASE MOTOR IS BELIEVED TO HAVE TRIPPED DUE TO WINDING FAILURE. RHR LOOP II WAS PLACED BACK IN-SERVICE AND RHR PUMP 1C MOTOR WAS REPLACED. ALL RELEVANT DATA HAS BEEN COLLECTED AND A FAILURE REPORT IS BEING FINALIZED. FAILURE MODE AND RECURRENCE CONTROL WILL BE ADDRESSED IN A FOLLOW-UP REPORT TO THIS LER BY 7/16/84.

[15] BROWNS FERRY 1 DOCKET 50-259 LER 84-004 REV 1
 UPDATE ON CONTROL RODS MOVED OUT OF SEQUENCE AND SUBSEQUENT REACTOR SCRAM.
 EVENT DATE: 010684 REPORT DATE: 041184 NSSS: GE TYPE: BWR

(NSIC 190246) WHILE PERFORMING MANUAL SHUTDOWN OF THE MAIN TURBINE, CONTROL RODS WERE BEING INSERTED TO REDUCE POWER. AT THIS POINT, POWER WAS 13.5%. WHEN VACUUM WAS REDUCED IN THE MAIN CONDENSER, THE REACTOR MODE SWITCH WAS MOVED FROM 'RUN' TO 'STARTUP.' THIS RESULTED IN A HALF SCRAM. THE UNIT OPERATOR AND NUCLEAR ENGINEER ATTEMPTED TO REDUCE POWER TO CLEAR THE HALF SCRAM. THE NUCLEAR ENGINEER CHANGED THE ROD PULL SHEET TO INSERT SELECTED RODS FROM POSITION '24' TO '00.' ROD WORTH MINIMIZER (RWM) WAS BYPASSED AND A SECOND LICENSED OPERATOR WAS PRESENT TO VERIFY ROD MOVES. TO FURTHER REDUCE POWER RAPIDLY, THE ROD NOTCH OVERRIDE (RONOR) SWITCH WAS USED TO INSERT RODS TO '00.' TECH SPEC 3.3.B.3.A WAS VIOLATED BY USAGE OF THE RONOR SWITCH TO POSITION RODS IN OTHER THAN POSITIONS REQUIRED BY GROUP NOTCH LOGIC OF ROD SEQUENCE CONTROL SYSTEM (RSCS). AT THIS POINT, THE NUCLEAR ENGINEER RECONSIDERED THESE ACTIONS AND REQUESTED A MANUAL SCRAM, WHICH WAS ACCOMPLISHED. EVENT TIME WAS LESS THAN TWO MINUTES. BOTH INDIVIDUALS WERE COUNSELED AS TO ALL PERTINENT REQUIREMENTS. IMMEDIATE RECURRENCE CONTROL WAS ADMINISTRATIVELY PROHIBITING USE OF RONOR SWITCH WHILE THE ROD SEQUENCE CONTROL SYSTEM IS ENFORCING.

[16] BROWNS FERRY 1 DOCKET 50-259 LER 84-007 REV 1
 UPDATE ON CAD STORAGE TANK PRESSURE MAINTAINING SYSTEM FOUND CLOSED.
 EVENT DATE: 012784 REPORT DATE: 030284 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: BROWNS FERRY 2 (BWR)
 BROWNS FERRY 3 (BWR)

(NSIC 190247) DURING ROUTINE CHECKS, THE UNIT OPERATOR OBSERVED DECREASING PRESSURE ON THE CONTROL ATMOSPHERIC DILUTION TANKS. UPON INVESTIGATION IT WAS DETERMINED THAT THE TWO ISOLATION VALVES FOR MAINTAINING TANK PRESSURES WERE IN

[26] BRUNSWICK 2 DOCKET 50-324 LER 81-143 REV 1
 UPDATE ON DIESEL GENERATOR FAILS TO ASSUME STEADY LOAD.
 EVENT DATE: 122881 REPORT DATE: 040984 NSSS: GE TYPE: BWR

(NSIC 189848) FURING UNIT POWER OPERATION, WHILE PERFORMING NO. 4 DIESEL GENERATOR MONTHLY LOAD TEST, PT-12.2D, IT WAS FOUND THAT THE DIESEL GENERATOR, MODEL NO. F5-1316-HS6, MANUFACTURED BY NORDBERG, WOULD NOT ASSURE A STEADY LOAD GREATER THAN 1000KW. AT THE TIME OF THIS EVENT, THE REMAINING DIESEL GENERATORS WERE OPERABLE. TECH SPECS 3.8.1.1, 6.9.1.9B. TROUBLESHOOTING THE DG MOTOR-OPERATED POT AND CONTROL CIRCUIT FAILED TO REVEAL PROBLEMS WHICH MAY HAVE CAUSED OR CONTRIBUTED TO THE ERRATIC LOADING OBSERVED DURING THE EVENT. THE DIESEL WAS STARTED AND LOADED TWICE, THE PT SATISFACTORILY COMPLETED, AND THE DG WAS RETURNED TO SERVICE. THE CAUSE OF THIS EVENT COULD NOT BE DETERMINED; NO FURTHER ACTION IS PLANNED REGARDING IT.

[27] BRUNSWICK 2 DOCKET 50-324 LER 82-069 REV 1
 UPDATE ON ROD OVERTRAVEL.
 EVENT DATE: 042482 REPORT DATE: 050484 NSSS: GE TYPE: BWR

(NSIC 190225) WHILE MOVING CONTROL RODS DURING A REACTOR STARTUP, A "ROD OVERTRAVEL" ANNUNCIATION WAS RECEIVED DURING THE VERIFICATION OF ROD-DRIVE COUPLING FOR ROD 30-31. THIS ROD AND THE OTHER RODS SYMMETRIC TO IT WERE THEN INSERTED AND DEACTIVATED IN ACCORDANCE WITH PLANT PROCEDURES AND TECH SPECS. TECH SPEC 3.1.3.6, 6.9.1.9B. DURING THE 1982 REFUELING OUTAGE, AN INSPECTION OF THE ROD REVEALED IT WAS COUPLED TO ITS RESPECTIVE DRIVE UNIT AND THAT THE SUBJECT ANNUNCIATION RESULTED FROM A LOOSE DRIVE UNIT INNER FILTER. THE INNER FILTER WAS REPLACED, THE DRIVE UNIT WAS REBUILT, AND THE ROD WAS RETURNED TO SERVICE. NO FURTHER ACTION SPECIFICALLY REGARDING THIS EVENT IS PLANNED.

[28] BRUNSWICK 2 DOCKET 50-324 LER 82-088 REV 2
 UPDATE ON DEFECTIVE VALVE STEMS.
 EVENT DATE: 080482 REPORT DATE: 051084 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: BRUNSWICK 1 (BWR)
 VENDOR: ANCHOR/DARLING VALVE CO.

(NSIC 190091) WHILE MANUALLY OPENING THE SUPPRESSION POOL SUCTION SUPPLY VALVE TO B PUMP OF B LOOP RHR, 2-E11-F004B, THE VALVE STEM SPUN FREELY BEYOND THE FULL OPEN VALVE POSITION. THE UNIT WAS IN COLD SHUTDOWN AT THE TIME OF THIS DISCOVERY. TECH SPECS 3.5.3.2, 6.9.1.9B. IGSCC OF THE VALVE STEM MATERIAL, RESULTING FROM A HARDNESS FACTOR OF THE MATERIAL IN EXCESS OF THE MANUFACTURER'S MAXIMUM SPECIFICATIONS WHICH IS ATTRIBUTED TO IMPROPER HEAT TREATING DURING MANUFACTURING, HAD ALLOWED A COMPLETE FRACTURE OF THE STEM TO OCCUR APPROXIMATELY 6 INCHES FROM THE VALVE GATE. A NEW VALVE STEM WAS INSTALLED AND THE VALVE WAS RETURNED TO SERVICE.

[29] BRUNSWICK 2 DOCKET 50-324 LER 83-000S
 FIRE DOOR FAILS TO CLOSE.
 EVENT DATE: 121883 REPORT DATE: 012484 NSSS: GE TYPE: BWR

(NSIC 190283) HIGH DIFFERENTIAL AIR PRESSURE. A FIRE BARRIER LCO WAS GENERATED FOR A UNIT NO. 2 SINGLE FIRE DOOR ON THE 50' ELEVATION IN THE DIESEL GENERATOR BLDG. THE DOOR, NUMBER 202, WAS DECLARED INOPERABLE BECAUSE OF ENCOUNTERED HIGH DIFFERENTIAL AIR PRESSURE ACROSS THE DOOR WHICH PREVENTS AUTOMATIC SELF-CLOSURE. PLANT ENGINEERING HAS BEEN REQUESTED TO EVALUATE THE INVOLVED DIFFERENTIAL AIR PRESSURE PROBLEM. UNTIL THE RETURN OF THE SUBJECT FIRE DOOR TO SERVICE, APPROPRIATE STATIONED FIRE WATCHES WILL REMAIN IN EFFECT.

FACILITY CHANGE REQUEST (FCR) HAS BEEN INITIATED FOR ADDITION OF A FILTER CIRCUIT FOR ALL APPLICABLE TRANSMITTERS.

[33] CALVERT CLIFFS 1 DOCKET 50-317 LER 83-014 REV 1
 UPDATE ON CHARGING PUMP DEVELOPS PACKING LEAK.
 EVENT DATE: 031183 REPORT DATE: 040984 NSSS: CE TYPE: PWR
 VENDOR: ARMCO STEEL CORP.

(NSIC 190234) AT 0645 DURING NORMAL OPERATION, WITH NUMBER 12 CHARGING PUMP OUT OF SERVICE, NUMBER 13 CHARGING PUMP DEVELOPED A PACKING LEAK AND WAS ISOLATED (TECH SPEC 3.1.2.4). NUMBER 13 CHARGING PUMP WAS RETURNED TO SERVICE AT 1405. NUMBER 11 CHARGING PUMP REMAINED OPERABLE DURING THE EVENT. SIMILAR EVENTS: NONE. 13 CHARGING PUMP PACKING FAILED DUE TO OVERFILLING OF THE CRANKCASE WITH OIL. OIL LEAKED INTO THE PLUNGER CAVITY AND WAS DRAWN INTO THE PACKING BECAUSE THE PLUNGER CAVITY DRAIN WAS CLOGGED. THE DRAIN PIPING HAS BEEN MODIFIED TO ASSURE MORE IMMEDIATE DRAINAGE. TO PREVENT OVERFILLING, OIL ADDITION PROCEDURES HAVE BEEN REVISED.

[34] CALVERT CLIFFS 1 DOCKET 50-317 LER 83-077E
 SILVER CONCENTRATION IN OYSTERS EXCEEDS LIMIT.
 EVENT DATE: 123183 REPORT DATE: 020284 NSSS: CE TYPE: PWR

(NSIC 190279) BIOCONCENTRATION. OYSTER SAMPLES COLLECTED FROM THE CAMP CANOY LOCATION AND ANALYZED FOR ETS TABLE 3.2-1, SHOWED AG-110M TO BE 113 +/-6 PCI/KG (WET). BACKGROUND SAMPLES DURING THIS PERIOD SHOWED AG-110M TO BE LESS THAN OR EQUAL TO 8.0 PCI/KG (WET) (TECH SPEC 5.6.2.B). THESE CONCENTRATIONS CALCULATE TO SMALL FRACTIONS OF THE DOSES ALLOWED BY 40 CFR PART 190. SIMILAR EVENT: 50-317/83-68/4T. THE HIGHER THAN BACKGROUND ACTIVITY WAS CAUSED BY THE NATURAL TENDENCY OF OYSTERS TO BIOCONCENTRATE ENVIRONMENTAL SILVER. ALL RELEASES IN 1983 HAVE BEEN WITHIN THE ALLOWABLE LIMITS IN THE TECH SPEC.

[35] CALVERT CLIFFS 2 DOCKET 50-318 LER 84-003
 REACTOR TRIP CAUSED BY SURGE CAPACITOR FAILURE.
 EVENT DATE: 041584 REPORT DATE: 051484 NSSS: CE TYPE: PWR
 VENDOR: FISCHER & PORTER CO.

(NSIC 190116) AT 1020 ON APR 15, 1984, WHILE OPERATING IN MODE 1 AT 100% POWER, AN AUTOMATIC TRIP OF CALVERT CLIFFS UNIT 2 REACTOR OCCURRED DUE TO A LOW REACTOR COOLANT FLOW CONDITION RESULTING FROM THE LOSS OF REACTOR COOLANT PUMP (RCP) 22B. THE BREAKER FEEDING RCP 22B HAD OPENED. THE ROOT CAUSE WAS AN OVERCURRENT CONDITION CAUSED BY AN INTERNAL SHORT TO GROUND IN A SURGE CAPACITOR FOR RCP 22B. THE FAILED CAPACITOR WAS DISCONNECTED AND THE PUMP RETURNED TO SERVICE. ONE OF FOUR TURBINE BYPASS VALVES (TBV) FAILED TO FULLY RESEAT CAUSING ADDITIONAL PRIMARY COOLDOWN. THE TBV WAS MANUALLY ISOLATED. THE CURRENT TO PNEUMATIC (I/P) SIGNAL CONVERTER WAS SLIGHTLY OUT OF ADJUSTMENT. AT 1025 AN AUXILIARY FEEDWATER ACTUATION SIGNAL (AFAS) WAS GENERATED DUE TO A TEMPORARY LOW LEVEL IN STEAM GENERATOR 22. THE LOW LEVEL OCCURRED WHILE MANUALLY CONTROLLING STEAM GENERATOR LEVELS. POST TRIP REVIEWS VERIFIED ALL SAFETY SYSTEMS FUNCTIONED AS EXPECTED. CORRECTIVE ACTIONS PLANNED INCLUDE REPLACING OLDER CAPACITORS, REPLACING ALL CAPACITORS PERIODICALLY, CONDUCTING PERIODIC CAPACITOR DEGRADATION CHECKS, AND REVISING EXISTING TBV PREVENTIVE MAINTENANCE PROCEDURE.

[36] CALVERT CLIFFS 2 DOCKET 50-318 LER 84-004
 MAIN STEAM SAFETY VALVE SETPOINTS OUT OF TOLERANCE.
 EVENT DATE: 042184 REPORT DATE: 051884 NSSS: CE TYPE: PWR
 VENDOR: DRESSER INDUSTRIAL VALVE & INST DIV

(NSIC 189724) ON APR 21, 1984 THE PLANT WAS IN MODE 3 IN PREPARATION FOR A REFUELING OUTAGE. THE REACTOR COOLANT TEMPERATURE WAS LOWERED TO APPROXIMATELY 500 F. IN THAT CONDITION, A SURVEILLANCE TEST PROCEDURE WAS PERFORMED TO CHECK AND ADJUST AS NECESSARY THE MAIN STEAM SAFETY VALVE (MSSVS) SETPOINTS. 13 OF 16 MSSVS WERE FOUND TO BE OUT OF TOLERANCE AS SPECIFIED IN THE ASME BOILER AND PRESSURE VESSEL CODE SECTION III. THE NECESSARY MSSVS WERE PLACED BACK INTO TOLERANCE PRIOR TO COMPLETION OF THE TEST. AT THE CONCLUSION OF THE TEST THE PLANT WAS PLACED INTO COLD SHUTDOWN IN ORDER TO CONTINUE WITH THE REFUELING OUTAGE. TO PREVENT RECURRENCE OF THIS EVENT THE MSSVS HAVE BEEN PLACED ON A PERIODIC MAINTENANCE SCHEDULE AND THE FREQUENCY OF SETPOINT TESTING WILL BE INCREASED.

[37] CALVERT CLIFFS 2 DOCKET 50-318 LER 84-005
DIESEL GENERATOR INOPERABILITY.
EVENT DATE: 042684 REPORT DATE: 052484 NSSS: CE TYPE: PWR

(NSIC 190117) WITH THE PLANT IN MODE 6, AN ELECTRICAL LINEUP WAS PERFORMED TO ALLOW PREVENTIVE MAINTENANCE ON 24A 480V AC BUS. THIS LINEUP POWERED 21 DIESEL GENERATOR AUXILIARIES FROM A BUS RECEIVING ITS BACKUP POWER FROM 12 DG, THEREBY CAUSING A LOSS OF INDEPENDENCE BETWEEN 21 AND 12 DGS. ALTHOUGH 21 DG WAS CONSIDERED INOPERABLE AT THIS POINT, THAT FACT WAS NOT CONVEYED TO PERSONNEL ON SUBSEQUENT SHIFTS. SINCE ONLY ONE DG IS REQUIRED OPERABLE IN MODE 6, NO TECH SPEC ACTION STATEMENTS WERE ENTERED AND HENCE NO LOG ENTRY TO THE EFFECT THAT 21 DG WAS INOPERABLE WAS MADE. THE FOLLOWING SHIFT, NOT REALIZING THE LACK OF INDEPENDENCE, REMOVED 12 DG FROM SERVICE, WHICH RESULTED IN INOPERABILITY OF BOTH DGS. BELIEVING 21 DG TO BE OPERABLE, TECH SPEC 3.8.2.2 WAS VIOLATED IN THAT CONTAINMENT INTEGRITY WAS NOT ESTABLISHED WITHIN 8 HRS. TO PREVENT A RECURRENCE OF A SIMILAR EVENT THE CONDITIONS SURROUNDING THIS EVENT WILL BE REVIEWED WITH ALL LICENSED PERSONNEL. ADDITIONALLY, LISTS OF EQUIPMENT REQUIRED FOR THE OPERABILITY OF EACH DG HAVE BEEN COMPILED FOR USE IN AIDING THE OPERATOR IN ASCERTAINING THE OPERABILITY OF REQUIRED DGS PRIOR TO REMOVING THE REDUNDANT DG FROM SERVICE.

[38] CONNECTICUT YANKEE DOCKET 50-213 LER 84-005
CONTROL ROD INSERTION LIMITS RE-EVALUATED FOR THREE LOOP OPERATION.
EVENT DATE: 042684 REPORT DATE: 052484 NSSS: WE TYPE: PWR

(NSIC 190099) WHILE EVALUATING THE ACCEPTABILITY OF THREE LOOP OPERATION FOR THE UPCOMING COASTDOWN AT THE HADDAM NECK PLANT, ERRORS IN THE DESIGN BASIS EVALUATION OF THE STEAM LINE BREAK ACCIDENT DURING THREE LOOP OPERATION WERE DISCOVERED. THESE ERRORS INVOLVED THE NONCONSERVATIVE TREATMENT OF THE REACTIVITY COMPONENTS THAT DETERMINE THE REQUIRED ROD WORTH IN THE SHUTDOWN MARGIN CALCULATION. WHEN THE DESIGN BASIS CALCULATIONS WERE CORRECTED WITH CONSERVATIVELY CALCULATED REQUIRED ROD WORTH, THE REQUIRED SHUTDOWN MARGIN WAS INCORPORATED IN THE PROPOSED TECH SPEC CHANGE REQUEST (SECTION 3.10) SUBMITTED BY LETTER TO NUCLEAR REACTOR REGULATION ON MAY 2, 1984.

[39] COOK 1 DOCKET 50-315 LER 84-004
AUXILIARY FEED PUMP TURBINE FAILURE TO TRIP.
EVENT DATE: 040984 REPORT DATE: 050984 NSSS: WE TYPE: PWR
VENDOR: SCHUTTE AND KOERING COMPANY

(NSIC 189667) DURING SURVEILLANCE TESTING OF THE TURBINE DRIVEN AUXILIARY FEED PUMP USING A REVISED PROCEDURE, THE THROTTLE TRIP VALVE FAILED TO TRIP THE TURBINE. THE CONTROL ROOM TRIP BUTTON HAD NOT PREVIOUSLY BEEN USED TO CLOSE THE THROTTLE TRIP VALVE. A UNIT SHUTDOWN WAS COMPLETED AS REPAIRS COULD NOT BE ACCOMPLISHED WITHIN THE T.S. 3.7.1.2 LCO TIME LIMIT OF 72 HOURS. THE FAILURE WAS DUE TO EXCESSIVE LEAK-OFF OF STEAM USED TO ASSIST VALVE CLOSURE. THE EXCESSIVE

DRAIN LINES. NO FURTHER REJECTABLE INDICATIONS WERE FOUND AS A RESULT OF THIS TESTING.

[47] COOPER DOCKET 50-298 LER 84-006
OFF-GAS STACK RELEASE NOT MONITORED.
EVENT DATE: 041884 REPORT DATE: 051584 NSSS: GE TYPE: BWR

(NSIC 189662) THE OFF-GAS STACK SAMPLER WAS PULLING A SAMPLE OF AIR FROM THE OFF-GAS FILTER BUILDING RATHER THAN A SAMPLE FROM THE PLANT STACK. THIS CREATED A SITUATION WHERE THE PLANT OFF-GAS STACK RELEASE WAS NOT MONITORED AS REQUIRED BY TECH SPECS. THIS EVENT WAS CAUSED BY A CHEMISTRY TECHNICIAN'S FAILURE TO FOLLOW AN APPROVED PROCEDURE FOR THE CHANGE OUT OF THE IN-LINE PARTICULATE FILTER AND IODINE CARTRIDGE. THIS LER WILL BE ROUTED TO THE APPROPRIATE SUPERVISORS AND ALL CHEMISTRY TECHNICIANS. ADDITIONALLY, PLANT PROCEDURES ARE BEING REVISED TO CLARIFY THE CHANGE OUT OF THE IN-LINE PARTICULATE FILTER AND IODINE CARTRIDGE.

[48] COOPER DOCKET 50-298 LER 84-007
STANDBY GAS TREATMENT SYSTEM INOPERABLE.
EVENT DATE: 041984 REPORT DATE: 051884 NSSS: GE TYPE: BWR

(NSIC 190109) WHILE SCHEDULED CONSTRUCTION WORK WAS IN PROGRESS, A BULLDOZER INADVERTENTLY SHEARED A HYDRANT FROM THE FIRE PROTECTION SYSTEM WITHIN THE COOPER NUCLEAR STATION RESTRICTED SECURITY AREA. THE STATION FIRE PUMPS AUTOMATICALLY STARTED, BUT WERE LATER TEMPORARILY SECURED WHILE THE HYDRANT WAS BEING ISOLATED FROM THE SYSTEM. AT THIS POINT, THE FIRE PROTECTION SYSTEM HEADER PRESSURE HAD DROPPED FROM 140 PSIG TO APPROX. 10 PSIG. AFTER THE HYDRANT WAS ISOLATED, THE FIRE PROTECTION SYSTEM WAS REPRESSURIZED BY USING THE ELECTRIC FIRE PUMP. STARTING OF THE ELECTRIC FIRE PUMP CAUSED A PRESSURE SURGE WHICH RESULTED IN A SYSTEM WATER HAMMER. THIS WATER HAMMER FORCED OPEN THE CLAPPERS ON THE SBGTS AUTOMATIC DELUGE VALVES WHICH FLOODED THE CHARCOAL FILTERS ON THE SBGTS TRAINS, RENDERING BOTH TRAINS INOPERABLE. THIS PLACED THE PLANT IN A TECH SPEC LCO REQUIRING COLD SHUTDOWN. THE REACTOR WAS PLACED IN A COLD SHUTDOWN CONDITION UNTIL THE INOPERABLE SBT TRAINS WERE MADE OPERABLE. LACK OF ATTENTION PAID BY THE BULLDOZER OPERATOR TO HIS WORKING ENVIRONMENT, AND THE FAILURE OF THE CONTROL ROOM OPERATORS TO RESTORE SYSTEM PRESSURE GRADUALLY, WERE PERSONNEL ERRORS WHICH WERE IDENTIFIED.

[49] CRYSTAL RIVER 3 DOCKET 50-302 LER 82-033 REV 1
UPDATE ON SETPOINT DRIFT OF REACTOR BUILDING PRESSURE INSTRUMENT.
EVENT DATE: 050382 REPORT DATE: 042384 NSSS: BW TYPE: PWR
VENDOR: BAILEY METER COMPANY

(NSIC 189853) AT 1100, DURING NORMAL OPERATION, REACTOR BLDG PRESSURE INDICATOR (BS-16-PI) WAS DISCOVERED TO BE INOPERABLE CONTRARY TO TECH SPEC 3.3.3.6. REDUNDANCY WAS PROVIDED BY AN ALTERNATE REACTOR BLDG PRESSURE CHANNEL. MAINTENANCE WAS INITIATED AND OPERABILITY WAS RESTORED ON MAY 3, 1982. THIS IS THE THIRD OCCURRENCE FOR REACTOR BLDG PRESSURE CHANNEL (BS-16-PI) AND THIS IS THE EIGHTH REPORT UNDER THIS SPECIFICATION. THE CAUSE OF THIS EVENT IS ATTRIBUTED TO INSTRUMENT DRIFT. THE PRESSURE TRANSMITTER WAS CALIBRATED PER SURVEILLANCE PROCEDURE SP-162. SUBSEQUENT ENGINEERING EVALUATION CONCLUDED THAT REPLACING THE PRESSURE TRANSMITTER WAS A BETTER SOLUTION TO THE PROBLEM THAN INCREASING THE CALIBRATION FREQUENCY. BAILEY TRANSMITTERS BS-16-PT AND BS-17-PT WERE REPLACED WITH ROSEMOUNT TRANSMITTERS, AND CALIBRATED ON JUL 13, 1983.

[50] CRYSTAL RIVER 3 DOCKET 50-302 LER 83-003 REV 1
 UPDATE ON CONTAINMENT ISOLATION VALVE FAILURE.
 EVENT DATE: 011883 REPORT DATE: 042784 NSSS: BW TYPE: PWR
 VENDOR: WALWORTH COMPANY

(NSIC 189870) AT 0825, DURING NORMAL OPERATION, CONTAINMENT ISOLATION VALVE MUV-41 WAS DETERMINED TO BE INOPERABLE (TECH SPEC 3.6.3.1). MUV-41 WAS ISOLATED AND THE BREAKER DEACTIVATED TO PREVENT OPERATION. THIS IS THE FIRST OCCURRENCE FOR MUV-41 AND THE 45TH EVENT REPORTED UNDER TECH SPEC 3.6.3.1. THE GEAR TRAIN THAT DRIVES THE LIMIT SWITCH ASSEMBLY WAS STRIPPED, APPARENTLY DUE TO LACK OF LUBRICATION. THE GEARS WERE REPLACED AND LUBRICATED; THE LIMIT SWITCHES WERE SET. PREVENTATIVE MAINTENANCE EQUIPMENT LUBRICATION PROCEDURE (PM-133) WAS REVISED TO REQUIRE MUV-41 TO BE LUBRICATED AFTER MAINTENANCE IS PERFORMED.

[51] CRYSTAL RIVER 3 DOCKET 50-302 LER 83-023 REV 3
 UPDATE ON INADEQUATE FIRE BARRIERS.
 EVENT DATE: 061383 REPORT DATE: 050984 NSSS: BW TYPE: PWR
 VENDOR: AIR BALANCE, INC.

(NSIC 189871) ON JUN 13, 1983, PERSONNEL DISCOVERED A FIRE DAMPER (FD-86) WAS MISSING. SUBSEQUENT INVESTIGATION BY FPC REVEALED THE FOLLOWING ERRORS IN THE 1977 FPPR: (1) 55 FIRE DAMPERS HAD 1-1/2 HR FIRE RATINGS RATHER THAN 3 HRS., (2) 21 OF THESE FIRE DAMPERS WERE INSTALLED IN THE DUCT WORK NOT AT THE FIRE BARRIERS; AND (3) A CONTROL COMPLEX HVAC DUCT CHASE WAS NOT A 3 HR FIRE BARRIER. NEVERTHELESS, UNIT 3 STILL HAS ADEQUATE FIRE PROTECTION AGAINST THE FIRE LOADS STATED IN THE 1977 FPPR. THIS IS THE 3RD EVENT REPORTED UNDER TECH SPEC 3.7.12. THE PRINCIPAL CAUSE OF THIS EVENT IS PERSONNEL ERROR. FAILURE TO VERIFY INSTALLATION OF A FIELD CHANGE NOTICE RESULTED IN THE MISSING FIRE DAMPER. THE ERRORS IN THE 1977 FPPR RESULTED FROM PERSONNEL ERROR DURING THE WALKDOWN FOR THE FPPR. FLORIDA POWER CORP. FAILED TO IDENTIFY THESE ERRORS IN THE FPPR PRIOR TO SUBMITTAL TO THE NRC. THE SUPPLEMENT OUTLINES CORRECTIVE ACTION.

[52] CRYSTAL RIVER 3 DOCKET 50-302 LER 84-002 REV 1
 UPDATE ON NON-RECORDED LIQUID RELEASE.
 EVENT DATE: 020284 REPORT DATE: 041084 NSSS: BW TYPE: PWR
 VENDOR: BAILEY METER COMPANY

(NSIC 189895) ON FEB 1, 1984, AT 2220 HRS, CONTRARY TO APPROVED PROCEDURES, A UTILITY NON-LICENSED OPERATOR INITIATED AN OFF-SITE LIQUID RELEASE OF THE SECONDARY PLANT WITHOUT VERIFYING THAT THE WASTE DISPOSAL FLOW RECORDER WAS OPERABLE. THUS, CONTRARY TO TECH SPECS 2.4.1.L AND 2.4.1.M, A LIQUID RELEASE TOOK PLACE WITHOUT CONTINUOUS RECORDING OF THE RELEASE FLOW RATE AND RADIOACTIVITY. ON FEB 2, 1984, AT 0045 HRS, A RELIEVING UTILITY NON-LICENSED OPERATOR DISCOVERED THAT THE CHART RECORDER WAS INOPERABLE DUE TO A FAILURE IN THE PAPER ADVANCE MECHANISM. THE OPERATOR SUBSEQUENTLY TERMINATED THE RELEASE. NO RADIOACTIVE ISOTOPES WERE RELEASED TO THE ENVIRONMENT. THE CHART RECORDER WAS REPAIRED AND OPERATED PROPERLY. A PREVENTATIVE MAINTENANCE PROGRAM WILL BE IMPLEMENTED TO REGULARLY INSPECT AND ADJUST CHART RECORDERS REQUIRED (DIRECTLY AND INDIRECTLY) TO BE OPERABLE BY TECH SPECS. PLANT OPERATORS WILL BE RETRAINED IN THE PROPER USE OF THE CHART RECORDERS. OPERATING PROCEDURE OP-407-N WILL BE REVISED AS NOTED IN THE TEXT. THIS REPORT IS SUBMITTED IN ACCORDANCE WITH ENV TECH SPEC 5.6.2.A.

[53] CRYSTAL RIVER 3 DOCKET 50-302 LER 84-007
 WASTE DISPOSAL FLOW RECORDER FAILS.
 EVENT DATE: 041184 REPORT DATE: 042684 NSSS: BW TYPE: PWR
 VENDOR: BAILEY METER COMPANY

[70] FITZPATRICK DOCKET 50-333 LER 82-029 REV 1
 UPDATE ON TWO DIESEL GENERATORS INOPERABLE.
 EVENT DATE: 082382 REPORT DATE: 032184 NSSS: GE TYPE: BWR

(NSIC 189857) DURING NORMAL OPERATION, EMERGENCY DIESEL GENERATORS (EDG) A AND C WERE DECLARED INOPERABLE DUE TO AIR BAFFLE DEFORMATION RESULTING FROM EXCESSIVE TEMPERATURE FOLLOWING MODIFICATION OF THE WINDING SPACE HEATERS. THE DG'S WERE REQUIRED TO BE OPERABLE BY TECH SPEC 3.9.B. EDG B AND D WERE TESTED AND WERE FULLY OPERABLE. NO SIGNIFICANT HAZARD EXISTED. THE EVENT CAUSE WAS OVERHEATING OF A VENTILATION COWLING WITHIN THE GENERATORS DUE TO AN ORIGINAL DESIGN ERROR. THE SPACE HEATERS WERE DEENERGIZED AND EDG A AND C WERE RETURNED TO SERVICE. MODIFICATION OF THE COWLING AND HEATERS CORRECTS THE DESIGN ERROR.

[71] FITZPATRICK DOCKET 50-333 LER 83-041E
 MANGANESE CONCENTRATION IN MOLLUSKS EXCEEDS LIMIT.
 EVENT DATE: 100483 REPORT DATE: 010684 NSSS: GE TYPE: BWR

(NSIC 190272) BIOACCUMULATION. MOLLUSKS EXCEEDED 10 TIMES CONTROL SAMPLE FOR MANGANESE-54. THE DETECTED LEVEL OF MN-54 IN THE FITZPATRICK (ONSITE) AND NMPP (ONSITE) MOLLUSK SAMPLE WAS GREATER THAN 10 TIMES THE CONTROL LOCATION (OFFSITE) RESULTS FOR THE SAME SAMPLE PERIOD. THE CONTROL STATION 10 TIMES VALUE IS BASED ON 10 TIMES AN LLD VALUE (4.66 SIGMA). A POSSIBLE EXPLANATION FOR THE DETECTION OF THE 10 TIMES CONCENTRATION OF MN-54 IN THE MOLLUSK SAMPLES COLLECTED IS THE VERY HIGH BIOACCUMULATION FACTOR (CONCENTRATION FACTOR) FOR THIS ELEMENT. DUE TO THE FACT THAT STABLE MANGANESE IS AN ESSENTIAL TRACE ELEMENT IMPORTANT TO FRESH WATER MOLLUSKS, A BIOACCUMULATION FACTOR OF UP TO 1,600,000 CAN EXIST (MEAN VALUE = 300,000). THE BIOACCUMULATION FACTOR WILL VARY WITH THE CONCENTRATION OF MANGANESE IN THE LAKE. BECAUSE OF THIS HIGH CONCENTRATION FACTOR, TRACE QUANTITIES OF MN-54 WILL BE ACCUMULATED IN THE MOLLUSKS WHICH ARE INDIGENOUS TO THE SITE.

[72] FITZPATRICK DOCKET 50-333 LER 84-010
 REACTOR TRIP DUE TO LOW WATER LEVEL.
 EVENT DATE: 032584 REPORT DATE: 041984 NSSS: GE TYPE: BWR
 VENDOR: GRAHAM MFG CO.
 WORTHINGTON PUMP CORP.

(NSIC 189728) WHILE OPERATING AT 25% POWER DURING A REACTOR STARTUP A SCRAM OCCURRED CAUSED BY LOW REACTOR VESSEL LEVEL. THE LOW LEVEL WAS CAUSED BY THE LOSS OF THE SINGLE OPERATING REACTOR FEED PUMP DUE TO A CONTROL OIL LEAK. HPCI AND RCIC WERE MANUALLY INITIATED AND USED TO MAINTAIN VESSEL LEVEL. AFTER THE NEED FOR HPCI HAD PASSED IT WAS NOTED THAT A GASKET ON THE GLAND SEAL CONDENSER HAD DEVELOPED A LEAK. TO ISOLATE THE LEAK, HPCI WAS MADE INOPERATIVE. THE TRANSIENT PROCEEDED NORMALLY AND ALL SYSTEMS PERFORMED AS DESIGNED.

[73] FT. ST. VRAIN DOCKET 50-267 LER 81-047 REV 1
 UPDATE ON SEAL PRESSURE SWITCH MALFUNCTION.
 EVENT DATE: 080781 REPORT DATE: 060683 NSSS: GA TYPE: HTGR

(NSIC 190270) DIRT ACCUMULATION. DURING TESTING, 1 OF THE 12 HELIUM CIRCULATOR SEAL MALFUNCTION PRESSURE DIFFERENTIAL SWITCH UNITS WAS DISCOVERED TO HAVE A TRIP POINT OUTSIDE THE LIMITS OF LCO 4.4.1, TABLE 4.4-3. THIS IS REPORTABLE PER TECH SPEC AC 7.5.2(B)1 AND AC 7.5.2(B)2. SIMILAR REPORTS ARE RO'S 77-47, 78-27, 79-32, 79-56, 80-07, 80-16, 80-20, 80-26, 80-34, 80-41, 80-51, 80-72, 81-006, 81-016, AND 81-024. ITT BARTON MODEL 289 PRESSURE DIFFERENTIAL SWITCH FAILED TO ACTUATE AT TRIP POINT DUE TO DIRT ACCUMULATION IN ELECTRICAL SWITCH. THE ITT BARTON PRESSURE DIFFERENTIAL INDICATING SWITCHES WERE REPLACED WITH ITT BARTON

MODEL 752 PRESSURE TRANSMITTERS AND BISTABLE TRIP MODULES (MODEL PT-3D, MANUFACTURED BY GENERAL ATOMIC COMPANY) VIA CHANGE NOTICE 1110.

[74] FT. ST. VRAIN DOCKET 50-267 LER 83-023
EMERGENCY FEEDWATER TRAIN INOPERABLE.
EVENT DATE: 070183 REPORT DATE: 072983 NSSS: GA TYPE: HTGR

(NSIC 190277) LEAKY PRESSURE CONTROL VALVE. ON JULY 1 AND JULY 2, 1983, EMERGENCY FEEDWATER WAS UNAVAILABLE TO DRIVE THE LOOP I HELIUM CIRCULATOR WATER TURBINES. THE HEADER WAS ISOLATED TO ALLOW REPAIR OF PRESSURE CONTROL VALVE PV-21243 AND CALIBRATION/ALIGNMENT OF PRESSURE CONTROLLER PIC-21243, RESPECTIVELY. THIS CONSTITUTES OPERATION IN A DEGRADED MODE OF LCO 4.2.2(A) AND IS REPORTABLE PER TECH SPEC AC 7.5.2(B)2. SIMILAR RO'S ARE: 82-028, 82-029, 82-031, 82-034, 83-015, 83-020. NORMAL WEAR CAUSED INTERNAL LEAKAGE THROUGH PV-21243, A MASONNEILLAN, MODEL 81-20721, CARBON STEEL, 2500# RATED AIR OPERATED DIAPHRAGM VALVE. THE VALVE INTERNALS WERE REPLACED AND THE VALVE CALIBRATED. THE VALVE PRESSURE CONTROLLER, PIC-21243, WAS CALIBRATED AND ALIGNED. THE HEADER WAS RETURNED TO SERVICE.

[75] FT. ST. VRAIN DOCKET 50-267 LER 83-024
LIQUID NITROGEN STORAGE TANK LEVEL BELOW LIMIT.
EVENT DATE: 070683 REPORT DATE: 080583 NSSS: GA TYPE: HTGR

(NSIC 190278) LICENSED OPERATOR ERROR. THE LEVEL IN THE LIQUID NITROGEN STORAGE TANK (T-2501) DECREASED TO LESS THAN 650 GALLONS. THIS CONSTITUTES OPERATION IN A DEGRADED MODE OF LCO 4.2.12 AND IS REPORTABLE PER TECH SPEC AC 7.5.2(B)2. SIMILAR REPORTS: RO'S 81-071, 81-025, 81-021, 81-011, 80-039, 78-13, AND 77-11. THE SOUTH 'OUTSIDE' LIQUID NITROGEN STORAGE TANK BECAME EMPTY AND THE PERSONNEL INVOLVED DID NOT TAKE CORRECTIVE MEASURES TO MAINTAIN THE VOLUME OF LIQUID NITROGEN IN T-2501 AT GREATER THAN 650 GALLONS. THE NORTH 'OUTSIDE' LIQUID NITROGEN TANK WAS PLACED IN SERVICE AS THE SUPPLY SOURCE OF LIQUID NITROGEN TO T-2501. THE REQUIREMENTS OF TECH SPEC LCO 4.2.12 WERE REEMPHASIZED WITH THE OPERATIONS PERSONNEL INVOLVED. A MEMORANDUM FROM FT. ST. VRAIN MANAGEMENT REGARDING FREQUENCY OF PERSONNEL ERRORS AND POSSIBILITY OF REPRIMANDS FOR FUTURE VIOLATIONS HAS BEEN ISSUED.

[76] FT. ST. VRAIN DOCKET 50-267 LER 83-025
PRIMARY COOLANT OXIDANTS EXCEED LIMIT.
EVENT DATE: 072183 REPORT DATE: 081983 NSSS: GA TYPE: HTGR

(NSIC 190276) HIGH CORE TEMPERATURES. DURING THE PERIOD OF JULY 21, 1983, THROUGH AUGUST 6, 1983, THE REACTOR WAS OPERATED AT POWER WITH THE AVERAGE CORE OUTLET TEMPERATURE GREATER THAN OR EQUAL TO 1200 F, AND TOTAL PRIMARY COOLANT OXIDANTS (CO, CO₂, AND H₂O) GREATER THAN 10 PARTS PER MILLION (PPM) ON 13 SEPARATE OCCASIONS. THESE EVENTS CONSTITUTE OPERATION IN DEGRADED MODES OF LCO 4.2.10 AND ARE REPORTABLE PER TECH SPEC AC 7.5.2(B)2. SIMILAR REPORTS: RO'S 83-012, 83-003, 82-049, 82-030, 82-026, 82-023, AND 82-017. THE REACTOR HAD BEEN AT LOW POWER OR SHUTDOWN CONDITIONS SINCE EXPERIENCING A HIGH MOISTURE SCRAM ON MAR 17, 1983. DUE TO REACTOR DEWPOINT AND PRIMARY COOLANT OXIDANT LEVELS, REACTOR POWER WAS RESTRICTED WHILE THE HELIUM PURIFICATION SYSTEM SLOWLY REMOVED THE IMPURITIES. AS HIGHER PRIMARY COOLANT TEMPERATURES AND FLOWS WERE ATTAINED, COOLANT CLEANUP WAS EXPEDITED.

[77] FT. ST. VRAIN DOCKET 50-267 LER 83-026
REACTOR BUILDING SUMP PUMP PROPORTIONAL SAMPLER INOPERABLE.
EVENT DATE: 072283 REPORT DATE: 081983 NSSS: GA TYPE: HTGR

(NSIC 190275) SAMPLER NOT TESTED AFTER INSTALLATION. DURING A GREATER THAN 10 GPM RELEASE ON JULY 22 AND 23, 1983, THE REACTOR BLDG SUMP PUMP PROPORTIONAL SAMPLER WAS DISCOVERED TO BE INOPERABLE. THIS CONSTITUTES OPERATION IN A DEGRADED MODE OF LCO 4.8.3 AND IS REPORTABLE PER TECH SPEC AC 7.5.2(B)2. NO OBSERVABLE ACTIVITY INDICATED ON IN-SERVICE ACTIVITY MONITORS OR RECORDER. REDUNDANT SYSTEM OPERABLE. SIMILAR REPORTABLE OCCURRENCE IS RO 81-023. PERSONNEL ERROR. PUBLIC SERVICE CO. CHANGE NOTICE (CN 1433A AND 1433B) INSTALLED A NEW PROPORTIONAL SAMPLER IN THE REACTOR BLDG SUMP PUMP DISCHARGE LINE. THE NEW SAMPLER WAS NOT FUNCTIONALLY TESTED PRIOR TO RETURNING THE SYSTEM TO SERVICE. UPON DISCOVERY, THE RELEASE WAS TERMINATED. NUCLEAR ENGINEERING DIVISION SITE PERSONNEL WERE REMINDED OF REQUIREMENTS ASSOCIATED WITH CONTROLLED WORK PROCEDURES. FT. ST. VRAIN ADMINISTRATIVE PROCEDURES WILL BE REVISED TO CLARIFY AND RESTRUCTURE PROCEDURES APPLICABLE TO PLANT MODIFICATION WORK.

[78] FT. ST. VRAIN DOCKET 50-267 LER 83-028
DIESEL ENGINE FAILS TO START.
EVENT DATE: 072583 REPORT DATE: 082483 NSSS: GA TYPE: HTGR

(NSIC 190274) LOW FLUID LEVEL IN BATTERY. THE ACM DIESEL ENGINE FAILED TO START IN THE PERFORMANCE OF A ROUTINE WEEKLY SURVEILLANCE TEST DUE TO INSUFFICIENT CHARGE IN THE ACM DIESEL STARTING BATTERY. THIS CONSTITUTES OPERATION IN A DEGRADED MODE OF LCO 4.2.17 AND IS REPORTABLE PER TECH SPEC AC 7.5.2(B)2. RELATED REPORTS: RO 82-038, 81-063. THE ACM DIESEL ENGINE FAILED TO START DUE TO AN INSUFFICIENT CHARGE IN THE STARTING BATTERY CAUSED BY LOW FLUID LEVEL IN THE BATTERY. HIGH AMBIENT AIR TEMPERATURE IN THE BLDG WHERE THE BATTERY IS LOCATED INCREASED THE WATER EVAPORATION RATE. WATER WAS ADDED TO THE 56 CELLS AND THE BATTERY WAS PLACED ON OVERCHARGE. THE ACM OPERATING PROCEDURE WAS REVISED SO THAT THE NORTH AND SOUTH DOORS TO THE BLDG WHERE THE BATTERIES ARE STORED WILL BE OPENED WHEN VENTILATION IS OFF OR WHEN THE BATTERIES ARE ON OVERCHARGE. THE BATTERY IS MANUFACTURED BY GOULD TYPE KDZ 2700, 56 CELLS. MANUFACTURER NUMBER KBC-112-C.

[79] FT. ST. VRAIN DOCKET 50-267 LER 83-051
DG INTAKE FILTER DAMAGED.
EVENT DATE: 111983 REPORT DATE: 121683 NSSS: GA TYPE: HTGR

(NSIC 190271) MOUNTING BOLT WASHOUT DUE TO VIBRATION. THE ALTERNATE COOLING METHOD (ACM) DIESEL GENERATOR WAS TAKEN OUT OF SERVICE WHEN THE AIR INTAKE FILTER SECTION AND GENERATOR MOUNTING ASSEMBLY WERE FOUND DAMAGED DURING PERFORMANCE OF THE WEEKLY ACM GENERATOR LOAD TEST. THIS CONSTITUTES OPERATION IN A DEGRADED MODE OF LCO 4.2.17 AND IS REPORTABLE PER TECH SPEC AC 7.5.2(B)2. RELATED REPORTS: RO'S 83-028, 82-038, 81-063. MOUNTING BOLT WASHOUT AND CONCURRENT VIBRATION IS SUSPECTED TO HAVE BEEN THE CAUSE OF THE DAMAGE TO THE AIR INTAKE FILTER SECTION AND THE GENERATOR MOUNTING ASSEMBLY. ACCEPTABLE REPLACEMENT PARTS WERE OBTAINED AND INSTALLED. THE ACM WEEKLY LOAD TESTING WAS SUCCESSFULLY COMPLETED.

[80] FT. ST. VRAIN DOCKET 50-267 LER 84-003
REACTOR SCRAM DUE TO INSERTION OF STARTUP SOURCE.
EVENT DATE: 021284 REPORT DATE: 031384 NSSS: GA TYPE: HTGR

(NSIC 190280) OPERATOR ERROR. WITH THE REACTOR SHUT DOWN AND ROUTINE REFUELING ACTIVITIES TAKING PLACE, AN AUTOMATIC PLANT PROTECTIVE SYSTEM (PPS) REACTOR SCRAM WAS INITIATED BY A 1 OF 2 LOGIC TRIP INVOLVING THE NUCLEAR STARTUP CHANNEL II (SUC II). THE REACTOR SCRAM RESULTED DURING INSERTION OF A FUEL BLOCK CONTAINING THE NEUTRON STARTUP SOURCE ('SOURCE BLOCK') INTO THE REGION 22 REFUELING PENETRATION. THE AUTOMATIC ACTUATION OF THE PPS SCRAM CIRCUITRY IS BEING REPORTED PER 10 CFR 50.73(A)(2)(IV). THE STARTUP SOURCE FUEL BLOCK WAS WITHDRAWN

FROM THE REACTOR CORE, AND REFUELING ACTIVITIES WERE TEMPORARILY HALTED UNTIL AN EVALUATION OF THE EVENT WAS COMPLETED.

[81] FT. ST. VRAIN DOCKET 50-267 LER 84-004
 FIREWATER BOOSTER PUMPS NOT TESTED.
 EVENT DATE: 032784 REPORT DATE: 052484 NSSS: GA TYPE: NTGR

(NSIC 190273) ADMINISTRATIVE ERROR. DURING A REVIEW OF COMPLETED SURVEILLANCE TESTS, IT WAS DETERMINED THAT SURVEILLANCE TEST REQUIREMENTS FOR SR 5.2.23 (FIREWATER BOOSTER PUMP SURVEILLANCE) WERE NOT PERFORMED IN CONJUNCTION WITH SURVEILLANCE TEST SR 5.2.7A-A (WATER TURBINE DRIVE SURVEILLANCE) AS REQUIRED, DUE TO A PROCEDURAL INADEQUACY. DISCOVERY OF THIS DEFICIENCY WAS SUBSEQUENT TO THE SR 5.2.23 SURVEILLANCE INTERVAL 'LATE DATE'. THIS CONDITION IS PROHIBITED BY TECH SPECS AND IS REPORTABLE PER THE REQUIREMENTS OF 10 CFR 50.73(A)(2)(I). SURVEILLANCE TEST SR 5.2.7.A-A WILL BE REVISED TO SPECIFY THE REQUIREMENT OF SATISFYING SR 5.2.23 IN CONJUNCTION WITH IT.

[82] GINNA DOCKET 50-244 LER 84-004
 INOPERABLE WASTE GAS OXYGEN ANALYZER.
 EVENT DATE: 042384 REPORT DATE: 052284 NSSS: WE TYPE: PWR
 VENDOR: MSA INTERNATIONAL

(NSIC 189649) THE WASTE GAS SYSTEM OXYGEN ANALYZER WAS FOUND IMOPERABLE AT 0910 ON 4/23/84. INSPECTION OF THE RECORDER INDICATED THE ANALYZER HAD BEEN OUT OF SERVICE FROM APPROXIMATELY 1000 ON THE PREVIOUS DAY. TECH SPEC 3.5.4.3 REQUIRES THE OXYGEN ANALYZER TO BE IN SERVICE OR LABORATORY SAMPLES MUST BE TAKEN EVERY 4 HOURS. NEITHER OF THESE REQUIREMENTS WERE MET FROM 1000 ON 4/22/84 THROUGH 0910 ON 4/23/84.

[83] GRAND GULF 1 DOCKET 50-416 LER 82-080 REV 4
 UPDATE ON BROKEN CAPSCREW ON DIESEL GENERATOR.
 EVENT DATE: 100482 REPORT DATE: 032184 NSSS: GE TYPE: BWR
 VENDOR: DE LAVAL TURBINE, INC.

(NSIC 189860) WITH THE UNIT IN COLD SHUTDOWN, A SPECIAL INSPECTION ON THE DIV 2 STANDBY DG WAS CONDUCTED. DURING THIS INSPECTION, ONE OF THE CAPSCREWS WHICH SECURES THE REAR CRANKCASE COVER TO THE ENGINE BLOCK WAS DISCOVERED TO BE DEFECTIVE. THIS REPORT IS SUBMITTED PURSUANT TO TECH SPEC 6.9.1.12.E AND I. THE DIV 1 AND 3 DG/S WERE OPERABLE AT THE TIME THE DEFECT WAS DISCOVERED. THE CAPSCREW BROKE WHILE BEING CHECKED FOR THE CORRECT TORQUE. IT IS BELIEVED THAT THE CAPSCREW HAD PARTIALLY CRACKED DUE TO FATIGUE DURING ENGINE OPERATION PRIOR TO THE TORQUE CHECK. THE CAPSCREW AND 20 OTHERS WERE REPLACED. A DESIGN CHANGE HAS BEEN COMPLETED WHICH REPLACED THE ORIGINAL CAPSCREWS WITH HIGHER STRENGTH CAPSCREWS.

[84] GRAND GULF 1 DOCKET 50-416 LER 83-031 REV 4
 UPDATE ON FIRE DOOR BLOCKED OPEN.
 EVENT DATE: 011383 REPORT DATE: 043084 NSSS: GE TYPE: BWR

(NSIC 190097) ON JAN 13, 1983, FIRE RATED DOOR OC104 (HOT MACHINE SHOP TO TURBINE BLDG.) WAS BLOCKED OPEN TO ROUTE A TEMPORARY DISCHARGE HOSE FROM THE HOT MACHINE SHOP SUMP TO THE TURBINE BLDG. FLOOR DRAIN SYSTEM. AN HOURLY FIRE WATCH WAS ESTABLISHED IN ACCORDANCE WITH TECH SPEC 3.7.7. THIS IS SUBMITTED AS A SPECIAL REPORT PURSUANT TO TECH SPEC 6.9.2. THE TEMPORARY DISCHARGE HOSE WAS ROUTED THROUGH THE DOORWAY TO DISCHARGE WATER FROM THE HOT MACHINE SHOP SUMP. THE PRESENT SYSTEM PUMP IS INADEQUATE (WILL NOT GENERATE REQUIRED HEAD). DCP 83-843 HAS BEEN INITIATED FOR PUMP REPLACEMENT. THE DOOR WILL BE INTERMITTENTLY OPENED

AND FIRE WATCHES WILL BE ESTABLISHED UNTIL THE DCP IS COMPLETED. THIS IS A FINAL REPORT.

[85] GRAND GULF 1 DOCKET 50-416 LER 83-078 REV 2
 UPDATE ON TWO INOPERABLE DIESEL GENERATORS.
 EVENT DATE: 070183 REPORT DATE: 033084 NSSS: GE TYPE: BWR
 VENDOR: CORSBY VALVE & GAGE CO.

(NSIC 189886) ON JULY 1, 1983, THE CONTROL ROOM OPERATORS WERE UNABLE TO MAINTAIN THE AIR RECEIVER PRESSURE FOR DG 11 GREATER THAN 160 PSIG AS REQUIRED BY TECH SPEC 4.8.1.1.2.A.7. DG 12 WAS ALREADY INOPERABLE DUE TO A MAINTENANCE TAG OUT OF THE STANDBY SERVICE WATER (SSW) 'B' SUBSYSTEM. DUE TO THE INOPERABLE STATUS OF THE 2 DG'S, ACTION A OF TECH SPEC 3.8.1.2 WAS ENTERED. THIS IS BEING SUBMITTED PURSUANT TO TECH SPEC 6.9.1.13.B AS A FINAL REPORT. THE CAUSE WAS SETPOINT DRIFT AND DAMAGED SEALS OF THE RELIEF VALVES. RELOCATION OF THE AIR PRESSURE SENSING POINT IN SEPT 1983 REDUCED COMPRESSOR CYCLING THEREBY REDUCING THE VALVE'S SETPOINT DRIFT AND DAMAGE TO SEATS CAUSED BY ITS FREQUENT OPERATION. THE EVENT HAS NOT RECURRED SINCE.

[86] GRAND GULF 1 DOCKET 50-416 LER 83-107 REV 2
 UPDATE ON LOOSE DG TURBOCHARGER MOUNTING BOLTS.
 EVENT DATE: 072683 REPORT DATE: 032784 NSSS: GE TYPE: BWR
 VENDOR: DE LAVAL TURBINE, INC.
 TRANSAMERICA DELAVAL

(NSIC 190239) ON 7/26/83, DURING A TEST, THE MOUNTING BOLTS FOR A DIV I DG TURBOCHARGER WERE FOUND TO BE EITHER LOOSE OR BROKEN. DURING THIS AND SUBSEQUENT TESTS AND INSPECTIONS, ASSOCIATED PARTS AND WELDS WERE DISCOVERED CRACKED OR BROKEN. THE REQUIREMENTS OF TECH SPEC 3.8.1.2 WERE MET. THIS IS REPORTED PURSUANT TO TECH SPEC 4.8.1.1.3. THIS IS A FINAL REPORT. THE FAILURES OF THE BOLTS ARE ATTRIBUTED TO TURBOCHARGER MISALIGNMENT. THE CRACKED COMPONENTS WERE DUE TO TURBOCHARGER VIBRATION AFTER THE BOLTS FAILED. THE CRACKS WERE WELD REPAIRED, AND LONGER BOLTS WERE USED TO REMOUNT AND REALIGN THE TURBOCHARGER. DURING SUBSEQUENT TESTS, BOLTS ON THE LB TURBOCHARGER FAILED AGAIN DUE TO THE ALIGNMENT PROBLEM (SR 84-007).

[87] GRAND GULF 1 DOCKET 50-416 LER 83-136 REV 4
 UPDATE ON DIESEL GENERATOR SHUT DOWN AFTER SEVERAL COMPONENTS FAIL.
 EVENT DATE: 083083 REPORT DATE: 033084 NSSS: GE TYPE: EWR
 VENDOR: DE LAVAL TURBINE, INC.
 TRANSAMERICA DELAVAL

(NSIC 190240) ON 8-30-83, DURING A 24 HR SURVEILLANCE TEST RUN, THE DIV I DG WAS SHUT DOWN WHEN THE RB1 AND LB5 CYLINDER EXHAUST GASKETS FAILED AND A CRACK AND 2 BROKEN WELDS WERE DISCOVERED ON THE INTERCOOLERS. THE DIESEL WAS 98 MINS INTO THE TEST RUN. PER REG GUIDE 1.108, PARAGRAPH C.2.E.(3), THIS WAS A VALID SUCCESSFUL TEST. THIS IS REPORTED PURSUANT TO TECH SPEC 4.8.1.1.3. THIS IS A FINAL REPORT. THE GASKET FAILURES WERE CAUSED BY LOOSE MANIFOLD BOLTS AND HAVE BEEN REPLACED. A CRACK IN THE BASE METAL OF THE LB INTERCOOLER WAS CAUSED BY THE TURBOCHARGER MISALIGNMENT AND MOUNTING PROBLEMS REPORTED IN LER 83-107. TWO BROKEN STAY ROD WELDS ON THE RB INTERCOOLER WERE DUE TO INSUFFICIENT FILLER WELDS. THE CRACK AND WELDS WERE WELD REPAIRED.

[88] GRAND GULF 1 DOCKET 50-416 LER 83-122 REV 1
 UPDATE ON CO2 FIRE PROTECTION SYSTEM ISOLATED BY CLOSED VALVE.
 EVENT DATE: 090883 REPORT DATE: 032184 NSSS: GE TYPE: BWR

(NSIC 189887) ON SEPT 8, 1983, AN OPERATOR DISCOVERED VALVE P64F467 CLOSED. THE VALVE SUPPLIES OPERATING PRESSURE TO THE CO2 FIRE PROTECTION MASTER SELECTOR VALVE WHICH MUST BE OPERABLE FOR THE CO2 TO DISCHARGE FROM THE TANK TO THE MAIN HEADER. THE CLOSED VALVE ISOLATED THE CO2 PROTECTION REQUIRED BY TECH SPEC 3.7.6.3. THIS IS REPORTED PURSUANT TO TECH SPEC 6.9.1.12.B. THIS IS A FINAL REPORT. IT COULD NOT BE DETERMINED WHY THE VALVE WAS CLOSED. THE VALVE IS NOW LOCKED OPEN. ASSOCIATED PRINTS AND PROCEDURES WERE REVISED TO REFLECT THIS REQUIREMENT. SINCE A DESIGN CHANGE WAS INITIATED TO CORRECT THE PRINTS PRIOR TO THE EVENT, ALL OUTSTANDING CHANGE REQUESTS INITIATED TO REVISE PRINTS WERE REVIEWED FOR EFFECT ON OPERATING INSTRUCTIONS.

[89] GRAND GULF 1 DOCKET 50-416 LER 83-153 REV 1
 UPDATE ON ERRONEOUS READING ON RHR/RCIC FLOW INSTRUMENTS.
 EVENT DATE: 093083 REPORT DATE: 043084 NSSS: GE TYPE: BWR

(NSIC 190241) ON 9/30/83, DURING THE 12 HR CHANNEL CHECK OF TECH SPEC 4.3.2.1-1.5.K, THE RHR/RCIC HIGH STEAM LINE FLOW ISOLATION ACTUATION INSTRUMENTS WERE FOUND TO BE READING SIGNIFICANTLY DIFFERENT. CHANNEL A INDICATED APPROX. -15 INCHES OF WATER WHILE CHANNEL B INDICATED 35 INCHES DURING NO FLOW CONDITIONS. ACTION 27 OF TECH SPEC 3.3.2 WAS PERFORMED AS THE INSTRUMENTS WERE CONSIDERED INOPERABLE. DUE TO THE ARRANGEMENT OF THE INSTRUMENT SENSING LINES, THERE WAS AN INADVERTENT LOOP SEAL IN THE STEAM PORTION OF THE LINE THAT FILLED WITH WATER RESULTING IN A DIFFERENTIAL PRESSURE SENSED BY THE TRANSMITTER. THE A TRANSMITTER AND TRIP UNIT WERE RECALIBRATED TO OFFSET THE ERROR. THE B CHANNEL WAS DETERMINED TO BE CONSERVATIVE AND NO ACTION WAS TAKEN.

[90] GRAND GULF 1 DOCKET 50-416 LER 83-169 REV 1
 UPDATE ON LOW NITROGEN PRESSURE IN CONTROL ROD SCRAM ACCUMULATORS.
 EVENT DATE: 102383 REPORT DATE: 032184 NSSS: GE TYPE: BWR
 VENDOR: REACTOR CONTROLS INC.

(NSIC 189888) ON OCT 23, 1983, THE NITROGEN PRESSURE IN CONTROL ROD SCRAM ACCUMULATORS 40-53 AND 24-29 FELL BELOW 1520 PSIG. AN ACCUMULATOR TROUBLE ALARM WAS RECEIVED ON ACCUMULATOR 24-29 BUT NOT ON ACCUMULATOR 40-53. THE LOW PRESSURE IN 40-53 WAS FOUND BY THE WEEKLY SURVEILLANCE. THE REQUIRED ALARM SETPOINT IS 1520 +30, -0 PSIG ON DECREASING PRESSURE. AN LCO WAS ENTERED PURSUANT TO TECH SPEC 3.1.3.3. THE ACCUMULATORS WERE RECHARGED WITHIN 3 HRS. THIS IS REPORTED PURSUANT TO TECH SPEC 6.9.1.13.B. THE LOW PRESSURE IS ATTRIBUTED TO NORMAL LEAKAGE. THE PRESSURE SWITCH AND PRESSURE GAUGE WERE TESTED FOR SETPOINT AND FUNCTION AND WERE FOUND TO OPERATE CORRECTLY. THIS TEST WAS REPEATED IN FEB. AND THE SETPOINT HAD NOT DRIFTED. THE FAILURE TO ALARM IS NOT REPEATABLE AND IS CONSIDERED AN ISOLATED EVENT. THIS IS A FINAL REPORT.

[91] GRAND GULF 1 DOCKET 50-416 LER 83-171 REV 1
 UPDATE ON OIL LEAK FOUND ON DIESEL GENERATOR.
 EVENT DATE: 102883 REPORT DATE: 031684 NSSS: GE TYPE: BWR
 VENDOR: DE LAVAL TURBINE, INC.

(NSIC 189889) ON OCT 28, 1983, WHILE PRELUBING DG 11, A FUEL OIL LEAK WAS DISCOVERED AT A 90 DEGREE CONNECTION IN THE #5 RIGHT BANK CYLINDER LINE. THE SUBCOVER HEAD GASKET AT THE SAME CYLINDER WAS ALSO DAMAGED AND LEAKING. DURING MAINTENANCE WORK ON THESE FAILURES, A CONNECTOR PUSHROD WAS FOUND BROKEN BETWEEN THE BALL WELD AND THE ROD. THE D/G WAS DECLARED INOPERABLE AND AN LCO WAS ENTERED PURSUANT TO TECH SPEC 3.8.1.1 WHEN THE OIL LEAK WAS DISCOVERED. THIS IS REPORTED PURSUANT TO TECH SPEC 6.9.1.13.B. THE LUBE OIL LEAK WAS DUE TO A CRACK IN THE TUBING WHICH OCCURRED WHILE LOOSENING AND TIGHTENING THE FITTING DURING MAINTENANCE WORK. THE PUSHROD FAILURE WAS DUE TO THE BALL MATERIAL BEING

DIFFICULT TO WELD. A NEW REPLACEMENT CONNECTOR PUSHROD DESIGN DEVELOPED BY TDI HAS BEEN INSTALLED IN BOTH DIV 1 AND DIV 2 DG'S.

[92] GRAND GULF 1 DOCKET 50-416 LER 83-187 REV 1
 UPDATE ON INADVERTENT SAFETY INJECTION.
 EVENT DATE: 112283 REPORT DATE: 032684 NSSS: GE TYPE: BWR
 VENDOR: ROSEMOUNT, INC.

(NSIC 189890) ON NOV 22, 1983 WHILE IN COLD SHUTDOWN, MAINTENANCE TECHNICIANS FILLING A REACTOR VESSEL LEVEL TRANSMITTER REFERENCE LEG CAUSED A SPIKE THAT RESULTED IN DIV 1 AUTOMATIC ACTUATIONS INCLUDING AN INJECTION BY THE LOW PRESSURE CORE SPRAY PUMP AND AN ISOLATION OF SHUTDOWN COOLING. THE INJECTION LASTED FOR APPROX. 1 MINUTE AND 40 SECONDS. SHUTDOWN COOLING WAS RESTORED WITHIN 1 HR AS REQUIRED BY TECH SPEC 3.4.9.2. THIS IS SUBMITTED AS A FINAL REPORT PURSUANT TO TECH SPEC 6.9.1.13.B. THE CAUSE WAS PERSONNEL ERROR. THE REFERENCE LEG CHECK PROCEDURE WAS NOT BEING USED. THE PROCEDURE IS BEING REVISED TO PROVIDE MORE GUIDANCE. THE RESPONSIBLE SUPERVISOR WAS REPRIMANDED. I&C TECHNICIANS WERE INSTRUCTED TO USE THE PROCEDURE WHEN FILLING REFERENCE LEGS ASSOCIATED WITH VESSEL INSTRUMENTATION.

[93] GRAND GULF 1 DOCKET 50-416 LER 83-188 REV 1
 UPDATE ON LOSS OF RPS BUS AND SHUTDOWN COOLING.
 EVENT DATE: 120183 REPORT DATE: 032184 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 189891) ON DEC 1, 1983, A LOSS OF RPS BUS 'B' AND SHUTDOWN COOLING OCCURRED WHEN THE ALTERNATE POWER SUPPLY BREAKER TRIPPED. THE LOSS OF SHUTDOWN COOLING WAS CAUSED BY AN ISOLATION VALVE ON THE SUCTION OF THE PUMP CLOSING. PART OF THE VALVE'S ISOLATION LOGIC IS POWERED FROM THE RPS BUS. POWER WAS TRANSFERRED TO THE RPS MOTOR GENERATOR SET AND SHUTDOWN COOLING WAS RESTORED WITHIN ONE HOUR AS REQUIRED BY TECH SPEC 3.4.9.2. THIS IS SUBMITTED PURSUANT TO TECH SPEC 6.9.1.13.B AS A FINAL REPORT. VOLTAGE TRANSIENTS ON THE RPS BUS HAVE CAUSED SEVERAL RPS BREAKER TRIPS (SEE LER 83-137 & LER 84-002). TO PREVENT TRIPS ON SHORT TRANSIENTS, THE TIME DELAY SETTINGS FOR THE BREAKERS HAVE BEEN INCREASED FROM 0.1 SECONDS TO 3.5 SECONDS. ADDITIONAL ENHANCEMENTS BEING PERFORMED SUCH AS AN INCREASED RANGE FOR TRIP SETPOINTS ARE DISCUSSED IN LER 84-002.

[94] GRAND GULF 1 DOCKET 50-416 LER 84-002 REV 2
 UPDATE ON RPS BUS BREAKER TRIPS RESULTING IN LOSS OF SHUTDOWN COOLING.
 EVENT DATE: 010784 REPORT DATE: 053084 NSSS: GE TYPE: BWR

(NSIC 190134) SINCE JAN 7, 1984, SEVERAL INSTANCES OF RPS BUS BREAKER TRIPS HAVE RESULTED IN A LOSS OF SHUTDOWN COOLING. DATES OF OCCURRENCES WERE JAN 7, 9, 11, 14, 19, AND 20, AND FEB 23 AND 24. REDUNDANT TRAINS OF THE SHUTDOWN COOLING MODE OF RMR ARE SUPPLIED THROUGH A COMMON INLET CONTAINING 2 MOTOR-OPERATED VALVES IN SERIES. THE ISOLATION LOGIC FOR THESE VALVES RECEIVE POWER FROM THE RPS BUS. LOSS OF EITHER RPS BUS CAUSES ONE OR THE OTHER CONTAINMENT ISOLATION VALVES TO CLOSE, CAUSING A TOTAL LOSS OF SHUTDOWN COOLING. A TRIP ON JAN 19 WAS DUE TO A CIRCUIT BOARD FAILURE OF AN ELECTRICAL PROTECTION ASSEMBLY (EPA). THE REMAINING TRIPS ARE ATTRIBUTED TO VOLTAGE TRANSIENTS ON THE RPS BUSES. THE TIME DELAY SETTINGS FOR THE EPA BREAKERS WERE INCREASED TO PREVENT TRIPS ON SHORT TRANSIENTS. AN INCREASED TOLERANCE RANGE FOR THE UNDERVOLTAGE EPA TRIP SETTINGS IS BEING CONSIDERED.

[95] GRAND GULF 1 DOCKET 50-416 LER 84-005 REV 1
 UPDATE ON DRYWELL PURGE COMPRESSOR START.
 EVENT DATE: 011984 REPORT DATE: 033084 NSSS: GE TYPE: BWR
 VENDOR: AGASTAT RELAY CO.

(NSIC 190266) DURING PERFORMANCE OF A SPECIAL TEST OF THE DRYWELL PURGE COMPRESSOR 'A' LOGIC RELAYS THE COMPRESSOR WAS INADVERTENTLY STARTED. THE INADVERTENT START WAS CAUSED BY USE OF A DEFECTIVE PROCEDURE. A RELAY POWER SUPPLY LEAD WHICH WAS LIFTED, AS INSTRUCTED BY THE PROCEDURE, CAUSED ANOTHER RELAY TO DEENERGIZE DUE TO THEIR COMMON POWER SUPPLY LEADS BEING CONNECTED IN SERIES.

[96] GRAND GULF 1 DOCKET 50-416 LER 84-017
 REACTOR WATER CLEANUP SYSTEM ISOLATION.
 EVENT DATE: 040984 REPORT DATE: 050784 NSSS: GE TYPE: BWR

(NSIC 189691) ON APRIL 9, 1984, WHILE IN COLD SHUTDOWN, THE CONTAINMENT ISOLATION VALVES FOR THE REACTOR WATER CLEANUP SYSTEM ISOLATED ON A FALSE HEAT EXCHANGER ROOM HIGH TEMPERATURE SIGNAL. TROUBLESHOOTING EFFORTS IDENTIFIED NO FAILED COMPONENTS. THE CAUSE WAS ATTRIBUTED TO RADIO TRANSMISSION IN THE UPPER CONTROL ROOM.

[97] GRAND GULF 1 DOCKET 50-416 LER 84-018
 SHUTDOWN COOLING ISOLATION DURING SURVEILLANCE TESTING.
 EVENT DATE: 041484 REPORT DATE: 051084 NSSS: GE TYPE: BWR

(NSIC 189692) WHILE PERFORMING A REACTOR WATER CLEANUP SYSTEM (RWCU) FUNCTIONAL TEST, A TECHNICIAN LIFTED THE WRONG LEAD CAUSING AN ISOLATION OF SHUTDOWN COOLING. THE ERROR WAS IMMEDIATELY RECOGNIZED, THE LEAD WAS TERMINATED AND SHUTDOWN COOLING WAS RESTORED.

[98] GRAND GULF 1 DOCKET 50-416 LER 84-019
 LACK OF MANUAL ISOLATION FOR TEN VALVES.
 EVENT DATE: 041884 REPORT DATE: 051784 NSSS: GE TYPE: BWR

(NSIC 189693) ON APRIL 18, 1984, A CIRCUIT DESIGN DEFICIENCY WHICH AFFECTED TEN ISOLATION VALVES WAS DISCOVERED. THESE VALVES WOULD ISOLATE FROM TWO HIGH DRYWELL PRESSURE SIGNALS, TWO REACTOR LOW LEVEL SIGNALS, OR A MANUAL INITIATION WITH A CONCURRENT HIGH DRYWELL PRESSURE OR LOW LEVEL SIGNAL. TECH SPECS, HOWEVER, REQUIRE THE VALVES TO ISOLATE ON A MANUAL INITIATION WITH NO REFERENCE TO CONCURRENT HIGH DRYWELL OR LOW LEVEL SIGNALS. A DESIGN CHANGE WAS IMPLEMENTED WHICH ALTERED THE LOGIC SUCH THAT THE VALVES WOULD ISOLATE WITH A MANUAL INITIATION SIGNAL WITHOUT A CONCURRENT HIGH DRYWELL PRESSURE OR REACTOR LOW LEVEL SIGNAL.

[99] GRAND GULF 1 DOCKET 50-416 LER 84-022
 REACTOR WATER CLEANUP (RWCU) SYSTEM ISOLATES.
 EVENT DATE: 042084 REPORT DATE: 051884 NSSS: GE TYPE: BWR
 VENDOR: RILEY COMPANY, THE

(NSIC 189754) A SPURIOUS RWCU ISOLATION OCCURRED DURING PERFORMANCE OF A CHANNEL CHECK WHEN THE RWCU EQUIPMENT AREA DIFFERENTIAL TEMPERATURE READ/SET SWITCH WAS PLACED IN THE READ POSITION. THE SURVEILLANCE PROCEDURE WILL BE REVISED TO ALLOW BYPASSING THE ISOLATION SIGNAL WHEN TAKING THE READINGS. THE CHANNEL CHECK IS REQUIRED ONCE EACH 12 HOURS.

[100] GRAND GULF 1 DOCKET 50-416 LER 84-020
 REACTOR WATER CLEANUP ISOLATES FOUR TIMES.
 EVENT DATE: 042384 REPORT DATE: 051784 NSSS: GE TYPE: BWR

(NSIC 190267) ON APR 23 AND 24, 1984, DURING STARTUP, FOUR REACTOR WATER CLEANUP SYSTEM (RWCU) ISOLATIONS OCCURRED DUE TO FEEDWATER FLOW OSCILLATIONS. THE FLOW OSCILLATIONS CAUSED THE RWCU LEAK DETECTION SYSTEM TO SENSE A DIFFERENTIAL FLOW INDICATIVE OF A LEAK AND THIS SIGNALLED THE RWCU CONTAINMENT ISOLATION VALVES TO CLOSE.

[101] GRAND GULF 1 DOCKET 50-416 LER 84-023
 CONDUCTIVITY MEASUREMENTS NOT TAKEN AS REQUIRED.
 EVENT DATE: 043084 REPORT DATE: 053084 NSSS: GE TYPE: BWR

(NSIC 190268) AT 0930 HRS ON APR 30, 1984, ALL REACTOR COOLANT CONTINUOUS CONDUCTIVITY MONITORS WERE INOPERABLE. WHEN THIS OCCURS IN MODES 1, 2 AND 3 THE TECH SPECS REQUIRE OBTAINING IN-LINE CONDUCTIVITY MEASUREMENTS AT LEAST ONCE PER 4 HRS. FOR 10.5 HRS FROM 9030 TILL 2000 HRS THIS WAS NOT DONE.

[102] GRAND GULF 1 DOCKET 50-416 LER 84-021
 OFFGAS SAMPLING LIMIT EXCEEDED.
 EVENT DATE: 050184 REPORT DATE: 051784 NSSS: GE TYPE: BWR

(NSIC 189753) A LIMITING CONDITION FOR OPERATION (LCO) WAS IN EFFECT FROM APRIL 25 TO MAY 3, 1984 DUE TO THE INOPERABILITY OF THE MAIN CONDENSER OFFGAS HYDROGEN MONITOR. THE CONDITION ALLOWED CONTINUED OPERATION OF THE MAIN CONDENSER OFFGAS TREATMENT SYSTEM PROVIDED GRAB SAMPLES WERE COLLECTED ONCE PER 4 HOURS. ON MAY 1, IT WAS DISCOVERED THAT DUE TO A MISINTERPRETATION OF TECH SPEC 4.0.2, SOME OF THE SAMPLES WERE OBTAINED 3 TO 20 MINUTES AFTER THE 4 HOUR REQUIREMENT.

[103] GRAND GULF 1 DOCKET 50-416 LER 84-025
 SURVEILLANCE NOT PERFORMED PRIOR TO MODE CHANGE.
 EVENT DATE: 050184 REPORT DATE: 053184 NSSS: GE TYPE: BWR

(NSIC 190135) ON MAY 1, 1984, IT WAS DISCOVERED THAT A DRYWELL PURGE SYSTEM SURVEILLANCE PERFORMED ON AUG 17, 1983, WAS NOT ADEQUATE TO INSURE THAT TECH SPEC FLOW REQUIREMENTS WERE MET PRIOR TO THE STARTUPS ON SEP 25, 1983, AND APR 22, 1984. THE TECH SPEC FLOW REQUIREMENTS WERE REVISED AUG 8, 1983, AND THE SURVEILLANCE PROCEDURE WAS REVISED ACCORDINGLY. THE SUPERSEDED REVISION OF THE PROCEDURE WAS PERFORMED RATHER THAN THE NEW REVISION ON AUG 17. THE CORRECT PROCEDURE WAS PERFORMED UPON DISCOVERY AND THE RESULTS WERE ACCEPTABLE.

[104] GRAND GULF 1 DOCKET 50-416 LER 84-027
 ONE OFFSITE POWER SUPPLY LOST FOLLOWING LIGHTNING STRIKE.
 EVENT DATE: 050384 REPORT DATE: 060184 NSSS: GE TYPE: BWR

(NSIC 190269) DURING ADVERSE WEATHER ON MAY 3, 1984, A LIGHTNING STRIKE CAUSED A LOSS OF POWER FROM THE 115KV OFFSITE POWER SUPPLY. THIS RESULTED IN DEENERGIZATION OF THE DIVISION 1 AND DIVISION 3 ESP BUSES. BOTH DIVISIONS' DIESEL GENERATORS STARTED AND ENERGIZED THEIR RESPECTIVE BUSES. THERE WAS ALSO A DIVISION 1 AUXILIARY BUILDING ISOLATION. THE BUSES WERE PARALLELED TO THE 500KV OFFSITE POWER SUPPLY TO RESTORE NORMAL POWER.

[105] HATCH 1 DOCKET 50-321 LER 82-073 REV 1
 UPDATE ON RWCU ISOLATION VALVE FAILS TO CLOSE.
 EVENT DATE: 080882 REPORT DATE: 060184 NSSS: GE TYPE: BWR
 VENDOR: LIMITORQUE CORP.

(NSIC 190090) WHILE THE UNIT WAS OPERATING STEADY-STATE AT 2392 MWT, THE RWCU SYSTEM PRIMARY CONTAINMENT OUTBOARD ISOLATION VALVE FAILED TO CLOSE AFTER RECEIVING AN ISOLATION SIGNAL FROM THE "RWCU SYSTEM LEAK ALARM." THIS EVENT IS CONTRARY TO TECH SPECS 3.7.A.2.B AND C. THE INBOARD VALVE WAS CLOSED AS PER THE LCO REQUIRED BY TECH SPECS 3.7.D.2. THIS IS A NON-REPETITIVE EVENT. THIS EVENT WAS CAUSED BY MATERIAL FAILURE. ON 2-6-83 WITH THE UNIT IN COLD SHUTDOWN, MAINTENANCE PERSONNEL DETERMINED THAT THE PRIMARY CONTAINMENT VALVE'S OPERATOR WAS AT FAULT. THE VALVE OPERATOR WAS REPAIRED AND RETURNED TO SERVICE PER THE "PRIMARY CONTAINMENT ISOLATION VALVE OPERABILITY" PROCEDURE ON 2-8-83.

[106] HATCH 1 DOCKET 50-321 LER 83-030
 RCIC PUMP HAS LOW FLOW.
 EVENT DATE: 022183 REPORT DATE: 031783 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190235) WHILE PERFORMING THE RCIC PUMP OPERABILITY PROCEDURE, THE RCIC PUMP WAS DISCOVERED TO PUMP AT A MAXIMUM OUTPUT OF 360 GAL/MIN. THIS EVENT IS CONTRARY TO TECH SPECS SECTION 4.6.E.1, ITEM B (I.E., RCIC MUST PUMP AT LEAST 400 GPM). THE HPCI SYSTEM WAS THEN PROVEN OPERABLE AND PLANT OPERATION CONTINUED UNDER A 7-DAY LCO AS PER TECH SPECS 3.5.E.2. THIS IS A NON-REPETITIVE EVENT. THE CAUSE OF THIS EVENT WAS THE FAILURE OF THE TURBINE SPEED CONTROL CIRCUIT'S SIGNAL CONVERTER. AFTER THE SIGNAL CONVERTER WAS REPLACED, THE RCIC PUMP WAS FUNCTIONALLY TESTED SATISFACTORILY (AS LEFT FLOW RATE: 400 GPM). RCIC WAS THEN RETURNED TO NORMAL OPERABLE STATUS ON 2/22/83.

[107] HATCH 1 DOCKET 50-321 LER 84-008
 SURVEILLANCES OF SBTG SYSTEM NOT PERFORMED ON TIME.
 EVENT DATE: 043084 REPORT DATE: 052584 NSSS: GE TYPE: BWR

(NSIC 190253) ON 4/30/84, THE HATCH SITE SURVEILLANCE COORDINATOR WAS INFORMED OF AN APPARENT ANOMALY CONCERNING THE DUE DATE OF THE 'STANDBY GAS TREATMENT SYSTEM VENTILATION AND VALVE OPERABILITY' PROCEDURE (HNP-2-3655). FURTHER INVESTIGATION REVEALED THAT THE SURVEILLANCE TRACKING COMPUTER HAD MISCALCULATED THE DUE DATE FOR BOTH HNP-2-3655 AND OTHER SURVEILLANCE PROCEDURES (REFER TO CONTINUATION SHEET FOR LISTING OF OTHER PROCEDURES AFFECTED). THIS RESULTED IN THEIR BEING PERFORMED PAST THEIR LATEST ALLOWED DATE (I.E., THE DUE DATE PLUS THE 25% GRACE PERIOD ALLOWED BY UNIT 1 TECH SPECS SECTION 1.0, DEFINITION II AND UNIT 2 TECH SPECS SECTION 4.0.2.A). THE CORRECT DUE DATES FOR THE APPLICABLE PROCEDURES WERE CALCULATED BY HAND TO PREVENT EMINENT RECURRENCE OF THE ERROR. ADDITIONALLY, THE ORGANIZATION RESPONSIBLE FOR THE PROGRAMMING ERROR WAS IMMEDIATELY CONTACTED AND NOTIFIED OF THE DISCREPANCY. THE PROGRAMMING ERROR WAS DISCOVERED AND CORRECTED, AND WAS LINKED INTO PRODUCTION ON 5/11/84. ADDITIONALLY, AN INVESTIGATION WILL BE CONDUCTED TO DETERMINE IF THERE IS A PROBLEM WITH QUALITY CONTROL FOR COMPUTER SOFTWARE.

[108] HATCH 2 DOCKET 50-366 LER 84-001 REV 2
 UPDATE ON FRACTURE INVENT HEADER IN TORUS.
 EVENT DATE: 020384 REPORT DATE: 042684 NSSS: GE TYPE: BWR

(NSIC 190256) ON 2/3/84, DURING AN INSPECTION OF THE TORUS INTERIOR ON UNIT 2, PLANT PERSONNEL DETECTED A FRACTURE IN A 54 INCH VENT HEADER IN BAY 5. THE TOTAL SIZE OF THE FRACTURE WAS APPROX 26 SQUARE INCHES. THE CAUSE OF THIS EVENT WAS A BRITTLE FRACTURE OF THE VENT HEADER MATERIAL. THIS FRACTURE RESULTED FROM THE

VENT HEADER MATERIAL BEING SUBJECTED TO A TEMPERATURE BELOW ITS NIL DUCTILITY TEMPERATURE (NDT). SINCE A NITROGEN INERTING SYSTEM LINE IS LOCATED DIRECTLY ABOVE THE VENT HEADER IN THE VICINITY OF THE CRACK LINE, IT IS SPECULATED THAT THE INERTING SYSTEM WAS THE CAUSE OF THE LOW TEMPERATURE. THE VENT HEADER WILL BE REPAIRED PRIOR TO STARTUP. ADDITIONALLY, PROCEDURE CHANGES AND/OR SYSTEM MODIFICATIONS WILL BE MADE, AS NECESSARY, TO IMPROVE THE OPERATION OF THE NITROGEN INERTING SYSTEM.

[109] HATCH 2 DOCKET 50-366 LER 84-008
 PROCEDURE INADEQUATE IN MEETING REQUIREMENTS OF TECH SPECS.
 EVENT DATE: 032784 REPORT DATE: 042584 NSSS: GE TYPE: BWR

(NSIC 189736) ON 2/15/84, SURVEILLANCE PERSONNEL NOTED THAT THE "TURBINE BUILDING AREA TEMPERATURE FT&C" PROCEDURE (HNP-2-3725) WAS INADEQUATE IN MEETING THE MONTHLY CHANNEL FUNCTIONAL TEST REQUIREMENT OF TECH SPECS TABLE 4.3.2-1, ITEM 1.F. ON 2/23/84, THIS EVENT WAS INITIALLY REVIEWED BY THE PLANT REVIEW BOARD (PRB) AND WAS DETERMINED AS BEING NON-REPORTABLE. HOWEVER, ON 4/3/84, THE PRB REVIEWED THIS EVENT AGAIN AND DETERMINED THE EVENT AS BEING REPORTABLE PER 10 CFR 50.73(A)(2)(I)(B). ON 3/27/84, PLANT PERSONNEL NOTED THAT HNP-2-3725 WAS INADEQUATE IN MEETING THE 18 MONTH CHANNEL CALIBRATION REQUIREMENT OF TECH SPECS 4.3.2-1, ITEM 1.F. THESE EVENTS ARE THE RESULT OF PROCEDURAL INADEQUACY DUE TO PERSONNEL MISINTERPRETING THE TECH SPEC'S DEFINITION OF CHANNEL FUNCTIONAL TEST AND CHANNEL CALIBRATION. HNP-2-3725 WILL BE REVISED PRIOR TO UNIT STARTUP SUCH THAT IT WILL MEET THE REQUIREMENTS OF TECH SPECS SECTION 4.3.2.1 AND TECH SPECS TABLE 4.3.2-1, ITEM 1.F. THE FORTHCOMING REVISION OF HNP-2-3725 WILL THEN BE PERFORMED AND THE RESULTS WILL BE PROVIDED IN AN UPDATE REPORT. THE UPDATE REPORT WILL INCLUDE A SUMMARY ASSESSMENT OF ACTUAL AND POTENTIAL SAFETY CONSEQUENCES AND IMPLICATIONS DUE TO THESE EVENTS.

[110] INDIAN POINT 3 DOCKET 50-286 LER 84-007
 AMP FAILS TEST DUE TO SETPOINT DRIFT.
 EVENT DATE: 050884 REPORT DATE: 060684 NSSS: WE TYPE: PWR
 VENDOR: FOXBORO CO., THE

(NSIC 190251) ON MAY 8, 1984, WITH THE REACTOR OPERATING AT 100% POWER, MONTHLY SURVEILLANCE TEST 3PT-M1 (NUCLEAR POWER RANGE) INDICATED A FAILURE IN CHANNEL 41. SPECIFICALLY, THE F(Delta-I) PENALTY ON THE OVERPOWER-OVERTEMPERATURE Delta-T TRIP SETPOINTS WAS SMALLER THAN REQUIRED BY THE TECH SPECS FOR AN INDICATED Delta-FLUX OF +54%. THE POWER RANGE INSTRUMENTATION WAS READJUSTED SUCH THAT THE F(Delta-I) MARGIN RETURNED TO AN ACCEPTABLE VALUE. THIS EVENT WAS CAUSED BY INSTRUMENT DRIFT.

[111] KEWAUNEE DOCKET 50-305 LER 84-006
 REDUNDANT CONTAINMENT ISOLATION VALVES HAVE EXCESSIVE LEAKAGE.
 EVENT DATE: 041684 REPORT DATE: 051684 NSSS: WE TYPE: PWR
 VENDOR: MASONEILAN INTERNATIONAL, INC.
 WORTHINGTON CORP.

(NSIC 189713) ON APR 16, 1984 WITH THE PLANT IN THE REFUELING OPERATING MODE, TESTING WAS IN PROGRESS TO DETERMINE CONTAINMENT ISOLATION VALVE LEAKAGE RATES PER 10 CFR 50, APPENDIX J. THREE ISOLATION VALVES (LD-4A, LD-4B, AND LD-6) WERE FOUND TO HAVE LEAKAGE RATES GREATER THAN THE UPPER MEASURING LIMIT OF THE LOCAL LEAK RATE TESTER. VALVE LD-6 IS THE REDUNDANT CONTAINMENT ISOLATION VALVE FOR THE PARALLEL CONTAINMENT ISOLATION VALVES LD-4A, LD-4B, AND LD-4C. CORRECTIVE ACTIONS TAKEN WERE: 1) REPLACEMENT OF THE SEAT RING GASKETS IN VALVES LD-4A AND LD-4B, AND 2) ADJUSTMENT OF THE STROKE ON VALVE LD-6. TO PREVENT RECURRENCE, A TECHNICAL EVALUATION WILL BE PERFORMED REVIEWING THIS AND PREVIOUS FAILURES OF

THE LD-4 SERIES VALVES TO DETERMINE PROPER CORRECTIVE ACTION. NO FURTHER ACTION IS CONSIDERED NECESSARY FOR VALVE LD-6.

[112] KEWAUNEE DOCKET 50-305 LER 84-007
 BOTH DIESEL GENERATORS INADVERTENTLY START.
 EVENT DATE: 042084 REPORT DATE: 051884 NSSS: WE TYPE: PWR

(NSIC 189714) AT 0105 ON APRIL 20, 1984, WITH THE PLANT IN A REFUELING SHUTDOWN MODE, ALARMS 4703175 "DIESEL GEN 1B ENGINE ABNORMAL" AND 4702921 "DIESEL GEN 1A ENGINE ABNORMAL" WERE RECEIVED IN THE CONTROL ROOM AND THE OPERATORS NOTICED THAT BOTH DIESEL GENERATORS WERE RUNNING. INVESTIGATION REVEALED THAT THE DIESEL GENERATOR START WAS CAUSED BY AN ELECTRICIAN INSTALLING A CONDUIT TO THE TURBINE EQUIPMENT TERMINAL BOX "A". DURING THE PROCESS HE JARRED THE PANEL CAUSING A MERCURIO SWITCH TO ACTUATE RELAY NO. 63/AST-3 "REACTOR AUTO STOP TRIP" RESULTING IN A REACTOR TRIP SIGNAL AND DIESEL GENERATOR AUTOMATIC START. AFTER INVESTIGATING THE CAUSE, THE DIESEL GENERATORS WERE SECURED AND THE INDIVIDUAL INVOLVED AND ELECTRICAL FOREMAN WERE CAUTIONED. THIS IS AN ISOLATED EVENT FOR DESIGN CHANGE WORK, HENCE, NO FURTHER FOLLOW-UP ACTION IS REQUIRED.

[113] KEWAUNEE DOCKET 50-305 LER 84-008
 REACTOR TRIP ON INTERMEDIATE RANGE HI FLUX.
 EVENT DATE: 050584 REPORT DATE: 060484 NSSS: WE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 189896) ON MAY 5, 1984, WITH THE PLANT IN A HOT SHUTDOWN MODE FOR POST REFUELING PHYSICS TESTING, AN INTERMEDIATE RANGE HI FLUX REACTOR TRIP WAS RECEIVED ON CHANNEL N35. THE OPERATORS PERFORMED THE IMMEDIATE ACTIONS PRESCRIBED IN THE REACTOR AND TURBINE TRIP PROCEDURE, PLACED N35 OUT OF SERVICE AND CONTINUED WITH PHYSICS TESTING. INVESTIGATION REVEALED THAT THE TRIP WAS DUE TO A FAULTY DETECTOR. SOURCE AND INTERMEDIATE RANGE DETECTOR FAILURE IS A REOCCURRING PROBLEM THAT IS NOTED AFTER ALMOST EVERY REFUELING OUTAGE. AN ENGINEERING STUDY IS UNDERWAY TO DETERMINE POSSIBLE CORRECTIVE ACTIONS. THE REACTOR PROTECTION SYSTEM PERFORMED ITS REQUIRED FUNCTION.

[114] LA SALLE 1 DOCKET 50-373 LER 82-176 REV 1
 UPDATE ON RHR PUMP FAILS.
 EVENT DATE: 122882 REPORT DATE: 012683 NSSS: GE TYPE: BWR
 VENDOR: INGERSOLL-RAND CO.

(NSIC 189858) ON 12-28-82 AT 2030 HRS, WHILE THE RHR B SYSTEM WAS IN THE SUPP. POOL COOLING MODE, EXCESSIVE VIBRATION WAS NOTED ON THE RHR 1B PUMP SHAFT. THE PUMP WAS IMMEDIATELY SHUT DOWN AND DECLARED INOPERATIVE. THE REACTOR WAS IN THE RUN MODE PRODUCING 1428 MWT, 330 MWE. PURSUANT TO TECH SPEC 3.6.2.3 REACTOR SHUTDOWN COMMENCED WITHIN 72 HRS OF THE DISCOVERY FOR MAJOR REPAIRS TO RHR B PUMP. THE HPCS, LPCS, RHR A AND RHR C SYSTEMS WERE OPERABLE IN THE STANDBY MODE FOR VESSEL INJECTION. UPON DISASSEMBLY, THE BEARINGS HAD SIGNS OF EXCESSIVE WEAR PER INGERSOLL RAND, THE PUMP MANUFACTURER, RECOMMENDED TOLERANCES. MEASUREMENTS ON THE UPPER PUMP COLUMN INDICATED MISALIGNMENT. THE BEARINGS WERE REPLACED AND THE UPPER COLUMN WAS MACHINED TO ALLOWABLE TOLERANCES. INSTRUMENTATION WAS INSTALLED ON THE PUMP CASING TO DETERMINE THE CAUSE OF THE PREVIOUS FAILURE.

[115] LA SALLE 1 DOCKET 50-373 LER 83-018 REV 1
 UPDATE ON SETPOINT DRIFT OF RCIC PUMP SUCTION LINE PRESSURE SWITCH.
 EVENT DATE: 022683 REPORT DATE: 042384 NSSS: GE TYPE: BWR
 VENDOR: BARKSDALE COMPANY

(NSIC 190236) ON 2/26/83 AT 0930 HRS DURING PERFORMANCE OF LIS-RI-14, RCIC PUMP

SUCTION LINE HIGH PRESSURE CALIBRATION AND FUNCTIONAL TEST, PRESSURE SWITCH 1E51-N021 SETPOINT WAS FOUND TO EXCEED TECH SPEC 4.4.3.2.2.B.2.5 ALARM SETPOINT OF 90 PSIG BY 7.3 PSIG. THE PRESSURE SWITCH WOULD HAVE ACTUATED THE CONTROL ROOM ALARM AT A SLIGHTLY HIGHER PRESSURE THAN THE TECH SPEC LIMIT. THE CAUSE OF THE SETPOINT DRIFT COULD NOT BE DETERMINED. THIS INSTRUMENT IS A BARKSDALE MODEL D2H-M150-SS. 1E51-N021 WAS RECALIBRATED AND RETURNED TO SERVICE ON 2/26/83 PER THE LIS-RI-14 PROCEDURE.

[116] LA SALLE 1 DOCKET 50-373 LER 83-117 REV 1
 UPDATE ON RHR HEAT EXCHANGER VALVE FAILS TO OPEN.
 EVENT DATE: 093083 REPORT DATE: 021484 NSSS: GE TYPE: BWR
 VENDOR: ANCHOR/DARLING VALVE CO.

(NSIC 189264) WITH UNIT ONE IN COLD SHUTDOWN, THE BH RHR HEAT EXCHANGER OUTLET VALVE FAILED TO OPEN VIA THE MOTOR OPERATOR OR MANUALLY. THE INOPERABILITY OF THIS VALVE, WHILE IN THE CLOSED POSITION, MADE B SHUTDOWN COOLING & B SUPPRESSION POOL COOLING INOPERATIVE. THE A SHUTDOWN COOLING LOOP WAS OPERABLE TO CONTROL DECAY HEAT. CONSERVATIVE CALCULATIONS ALSO INDICATED THE REACTOR WATER CLEANUP SYSTEM WAS CAPABLE OF REMOVING THE DECAY HEAT AT THE TIME OF THE EVENT. IT IS BELIEVED THAT THE VALVE CAN BECOME INOPERABLE IN THE CLOSE POSITION DUE TO WATER BEING TRAPPED IN THE BONNET CAVITY. SINCE THE BONNET CAVITY DOES NOT HAVE A MECHANISM TO VENT OFF THE ENTRAPPED WATER FOR VALVE OPENING, THE WEDGE IS HYDRAULICALLY LOCKED ON THE CLOSED POSITION. AT THE RECOMMENDATION OF ANCHOR DARLING, VALVE MFG., THE VALVE LIMIT SWITCHES WERE TEMPORARILY CHANGED SUCH THAT THE WEDGE TRAVEL IS STOPPED BY POSITION AND NOT BY TORQUE. THIS CHANGE SHOULD ALLOW THE ENTRAPPED WATER TO VENT OFF DURING VALVE OPENING.

[117] LA SALLE 1 DOCKET 50-373 LER 83-146 REV 1
 UPDATE ON FEEDWATER CHECK VALVES FAIL LEAK RATE TEST.
 EVENT DATE: 110983 REPORT DATE: 022184 NSSS: GE TYPE: BWR
 VENDOR: ANCHOR/DARLING VALVE CO.

(NSIC 189695) ON NOV. 9, 1983, WITH UNIT 1 SHUT DOWN FOR A PLANNED OUTAGE, LOCAL LEAK RATE TESTS WERE PERFORMED ON THE INBOARD FEEDWATER CHECK VALVES (1B21-F010A/B). IT WAS DETERMINED THAT THE TECH SPEC 3.6.1.2 LIMIT OF .6 LA (231.4 SCPH) WAS EXCEEDED. THE FEEDWATER LINES STILL HAVE 2 ISOLATION VALVES IN EACH LINE WHICH MEET THE REQUIREMENTS OF APPENDIX J TO 10CFR50 CRITERIA AS CONTAINMENT ISOLATION VALVES. THE FEEDWATER LINES AND CHECK VALVES ARE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH STANDARD REVIEW PLAN 3.6.2-10 SO AS TO PRECLUDE THE POSSIBILITY OF A CREDIBLE LINE BREAK. THE LEAKAGE WAS A RESULT OF GAPS FOUND ON THE PERIMETER OF THE DISC SEAL MATERIAL. THESE GAPS APPEARED AT THE SEAM, OR "VULCANIZED" POINTS OF THE SEAL. ALIGNMENT PROBLEMS WERE IDENTIFIED THAT WOULD HAVE PREVENTED THE DISCS FROM CLOSING SQUARELY AGAINST THE SEAL. THE MFR. IS SUPPLYING LSCS WITH "ONE PIECE" SEALS, & THE ALIGNMENT PROBLEMS ARE BEING RESOLVED. OTHER CORRECTIVE ACTION OUTLINED IN CONFIRMATORY LETTER FROM J. KEPPLER DATED 11-28-83.

[118] LA SALLE 1 DOCKET 50-373 LER 83-147 REV 1
 UPDATE ON SHUTDOWN COOLING LOOP INOPERABLE.
 EVENT DATE: 111283 REPORT DATE: 022384 NSSS: GE TYPE: BWR
 VENDOR: ANCHOR/DARLING VALVE CO.

(NSIC 189876) ON 11-12-83 AT 2215 WITH THE UNIT IN COLD SHUTDOWN, THE B RHR HEAT EXCHANGER OUTLET VALVE (1E12-F003B) FAILED TO OPEN VIA THE MOTOR OPERATOR OR MANUALLY. THE INOPERABILITY OF THIS VALVE, WHILE IN THE CLOSED POSITION, MADE B SHUTDOWN COOLING AND B SUPPRESSION POOL COOLING INOPERATIVE. THE A SHUTDOWN COOLING LOOP WAS OPERABLE TO CONTROL DECAY HEAT. A SECOND METHOD OF CONTROLLING DECAY HEAT WAS ALSO AVAILABLE. THIS SECOND METHOD UTILIZES THE RHR AND RCIC

SYSTEMS. SAFE OPERATION OF THE PLANT WAS MAINTAINED. IT IS BELIEVED THAT THE VALVE CAN BECOME INOPERABLE IN THE CLOSE POSITION DUE TO WATER BEING TRAPPED IN THE BONNET CAVITY. SINCE THE BONNET CAVITY DOES NOT HAVE A MECHANISM TO VENT OFF THE ENTRAPPED WATER FOR VALVE OPENING, THE WEDGE IS HYDRAULICALLY LOCKED IN THE CLOSED POSITION. AT THE RECOMMENDATION OF ANCHOR DARLING VALVE MFG., THE VALVE LIMIT SWITCHES WERE TEMPORARILY CHANGED SUCH THAT THE WEDGE TRAVEL IS STOPPED BY POSITION AND NOT BY TORQUE. THIS CHANGE SHOULD ALLOW THE ENTRAPPED WATER TO VENT OFF DURING VALVE OPENING.

[119] LA SALLE 1 DOCKET 50-373 LER 84-017 REV 1
 UPDATE ON FAILURE OF CONTROL ROOM VENTILATION AMMONIA/CHLORINE DETECTION SYSTEM.
 EVENT DATE: 030884 REPORT DATE: 052584 NSSS: GE TYPE: BWR
 VENDOR: M D A SCIENTIFIC, INC.
 PENNWALT CORP.

(NSIC 190129) ON MAR 8, 1984, THE AMMONIA/CHLORINE MONITORS OAE-VC091A AND DAE-VC091B FOR THE VI SYSTEM ALARMED. AN ATTEMPT TO RESET THE ALARM WAS UNSUCCESSFUL. AN INVESTIGATION REVEALED THE VI SYSTEM 'B' TRAIN AMMONIA/CHLORINE DETECTORS TO BE FROZEN, MAKING THEM INOPERABLE. THE VI SYSTEM 'A' TRAIN AMMONIA DETECTOR WAS ALSO INOPERABLE, INDICATING A FAULTY OPTICAL ISOLATOR. AT THE TIME OF THE OCCURRENCE, BOTH UNIT 1 AND UNIT 2 WERE IN COLD SHUTDOWN (CONDITION 4). IN ACCORDANCE WITH TECH SPEC 3.3.7.8, THE VI SYSTEM 'A' TRAIN WAS RUN IN THE RECIRCULATION MODE. WORK REQUESTS L34054 AND L34055 WERE GENERATED TO INVESTIGATE AND REPAIR THE DETECTORS. THE DETECTORS WERE REPAIRED ON 3/12/84 AND RETURNED TO SERVICE ON 3/13/84.

[120] LA SALLE 1 DOCKET 50-373 LER 84-018 REV 1
 UPDATE ON FAULTY BUTT SPLICES IN CONTROL CABLES.
 EVENT DATE: 031084 REPORT DATE: 050984 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: LA SALLE 2 (BWR)

(NSIC 190130) TWO ALLEGATIONS WERE MADE TO THE NRC. THE FIRST CONCERNED THE USE OF AN INCORRECT SPLICING TECHNIQUE USED TO INSTALL BUTT SPLICES ON CONTROL/INSTRUMENTATION CONDUCTORS AND THE SECOND CONCERNED AN IMPROPER TECHNIQUE USED TO REMOVE OUTER JACKETING FROM MULTICONDUCTOR CABLING RESULTING IN NICKS/CUTS TO THE CONDUCTOR INSULATION. INSPECTIONS WERE PERFORMED IN UNIT 1 AND 2 AND REPAIRS WERE MADE AS REQUIRED. THIS LER IS SUBMITTED VOLUNTARILY FOR INFORMATIONAL PURPOSES.

[121] LA SALLE 1 DOCKET 50-373 LER 84-022
 REACTOR SCRAM ON LOW RPV LEVEL.
 EVENT DATE: 041484 REPORT DATE: 051084 NSSS: GE TYPE: BWR

(NSIC 189679) ON APR 14, 1984, AT 1905 HRS, WHILE IN THE PROCESS OF PLACING THE 1B TURBINE DRIVEN REACTOR FEED PUMP (SJ, TDRFP) ON LINE FOR AFTER MAINTENANCE TESTING, A LOW WATER LEVEL, HALF-SCRAM OCCURRED ON UNIT 1. THE UNIT 1 OPERATOR RESPONDED BY PLACING THE 1B TDRFP INTO 3 ELEMENT AUTOMATIC CONTROL AND INCREASED THE LOWERED (22") REACTOR WATER LEVEL CONTROLLER (JB) SETPOINT. WHEN THE UNIT 1 REACTOR WATER LEVEL REACHED 12.5", THE UNIT 1 REACTOR SCRAMMED. PCIS AND THE REACTOR RECIRCULATION (AD) PUMPS RESPONDED AS REQUIRED AND THE UNIT WAS SAFELY SHUT DOWN. THE CAUSE OF THIS EVENT WAS DUE TO OPERATOR MISCALCULATION. THE VESSEL LEVEL INSTRUMENTS WERE CHECKED AND FOUND TO BE ABOVE THE DESIGNED SETPOINT IN THE CONSERVATIVE DIRECTION. FEEDWATER OPERATING PROCEDURES WILL BE CHECKED FOR CLARITY IN PLACING A TDRFP ON LINE. THE OPERATOR ON SHIFT WAS TALKED TO ABOUT THE PROPER WAY TO PLACE A TDRFP ON LINE.

[122] LA SALLE 1 DOCKET 50-373 LER 84-023
 REACTOR WATER CLEAN-UP DIFFERENTIAL FLOW ISOLATION.
 EVENT DATE: 041584 REPORT DATE: 051084 NSSS: GE TYPE: BWR

(NSIC 189682) UNIT 1 REACTOR WATER CLEAN-UP SYSTEM ISOLATED ON APR 15, 1984, AT 1754 DUE TO HIGH DIFFERENTIAL FLOW, ATTRIBUTED TO LOSSES THROUGH A STUCK OPEN RELIEF VALVE ON THE SHELL SIDE OF THE REGENERATIVE HEAT EXCHANGER. THE 'A' HEAT EXCHANGER STRING WAS ISOLATED AND THE SYSTEM WAS RETURNED TO SERVICE AT 2249 USING THE 'B' HEAT EXCHANGER STRING. ALL ACTIONS OCCURRED IN ACCORDANCE WITH SYSTEM DESIGN. SAFE PLANT CONDITIONS WERE MAINTAINED AT ALL TIMES.

[123] LA SALLE 1 DOCKET 50-373 LER 84-024
 TWO ELECTRICAL CABLE PENETRATIONS INOPERABLE.
 EVENT DATE: 042384 REPORT DATE: 051584 NSSS: GE TYPE: BWR

(NSIC 190257) DURING A REINSPECTION OF ELECTRICAL CABLE FIRESTOPS CONDUCTED BY QUALITY CONTROL PERSONNEL IN THE CONTROL ROOM AND THE COMPUTER ROOM AT 768' AUXILIARY BUILDING, FIRESTOPS THAT DID NOT MEET INSPECTION CRITERIA WERE IDENTIFIED. ELECTRICAL CABLE PENETRATIONS AB2214 IN CABINET 2C91-P610 IN THE COMPUTER ROOM AND AB2186 IN CABINET 1H13-P609 IN THE CONTROL ROOM WERE INSPECTED AND DECLARED INOPERABLE ON APR 23, 1984, AND MAY 2, 1984, RESPECTIVELY. BOTH FIRESTOPS HAD BREAKTHROUGHS. THE TECHNICAL STAFF IMMEDIATELY NOTIFIED THE STATION FIRE MARSHAL AND INITIATED REPAIRS. AN HOURLY FIRE WATCH WAS PLACED IN EFFECT IN THE REFERENCED AREAS AND FIRE DETECTION WAS VERIFIED OPERABLE. REPAIRS AND INSPECTIONS ON AB2214 WERE COMPLETED ON APR 27, 1984, UNDER WORK REQUEST L35973 AND ON AB2186 ON MAY 4, 1984, UNDER WORK REQUEST L36363. ACTION ITEM RECORD 1-84-67071 HAS BEEN ISSUED TO REVISE ELECTRICAL PROCEDURE LEP GM-111. THE REVISION WILL REQUIRE THAT THE STATION FIRE MARSHAL BE NOTIFIED PRIOR TO A CABLE PULL THROUGH A FIRE BARRIER. APPROPRIATE MANAGEMENT PERSONNEL WILL BE TRAINED ON THE REVISION.

[124] LA SALLE 2 DOCKET 50-374 LER 84-013
 REACTOR WATER CLEAN-UP ISOLATES ON HIGH DIFFERENTIAL FLOW.
 EVENT DATE: 040384 REPORT DATE: 050184 NSSS: GF TYPE: BWR
 VENDOR: LONERGAN, J.E., CO.

(NSIC 189739) UNIT 2 REACTOR WATER CLEANUP SYSTEM (CE) ISOLATED ON APR 3, 1984 AT 1615 DUE TO HIGH DIFFERENTIAL FLOW ATTRIBUTED TO LOSSES THROUGH A STUCK OPEN RELIEF VALVE ON THE SHELL SIDE OF THE REGENERATIVE HEAT EXCHANGER. MAINTENANCE REPLACED THE RELIEF VALVE, AND THE SYSTEM WAS RETURNED TO SERVICE AT 0945 ON APR 4, 1984. ALL ACTIONS OCCURRED IN ACCORDANCE WITH SYSTEM DESIGN. SAFE PLANT CONDITIONS WERE MAINTAINED AT ALL TIMES.

[125] LA SALLE 2 DOCKET 50-374 LER 84-014
 HIGH PRESSURE CORE SPRAY JOCKEY PUMP FAILURE.
 EVENT DATE: 040384 REPORT DATE: 050384 NSSS: GE TYPE: BWR
 VENDOR: RELIANCE ELECTRIC COMPANY

(NSIC 189740) ON APR 3, 1984, THE UNIT 2 HIGH PRESSURE CORE SPRAY WATER LEG PUMP, 2E22-C003, MOTOR BEARING WAS DISCOVERED TO BE FAILING AND IN NEED OF REPLACEMENT. THE HIGH PRESSURE CORE SPRAY SYSTEM (BG) WAS DECLARED INOPERABLE AND THE PROVISIONS OF TECH SPEC 3.5.1 ACTION STATEMENT C.1 WERE COMPLIED WITH. REDUNDANT SAFETY SYSTEMS WERE AVAILABLE AT THE TIME OF THE OCCURRENCE ALLOWING PLANT OPERATION TO CONTINUE. THE PUMP MOTOR WAS REMOVED, THE BEARINGS IN THE MOTOR EXAMINED AND A NEW MOTOR, LIKE FOR LIKE REPLACEMENT, WAS INSTALLED. THE MOTOR WAS MEGGERED AND VERIFIED FOR PROPER ALIGNMENT AND ROTATION. REPAIRS TO THE UNIT 2 HIGH PRESSURE CORE SPRAY WATER LEG PUMP WERE COMPLETED ON APR 4, 1984.

[126] LA SALLE 2 DOCKET 50-374 LER 84-015
 FAILURE TO REALIZE LIMITING CONDITION OF OPERATION PRIOR TO CHANGING MODE.
 EVENT DATE: 041184 REPORT DATE: 050984 NSSS: GE TYPE: BWR

(NSIC 189681) ON APR 11, 1984 OPERATIONAL CONDITIONS WERE CHANGED WHILE A LIMITING CONDITION WAS BEING MET WITH RELIANCE ON THE ACTION STATEMENT. THE MODE SWITCH WAS TAKEN TO RUN FROM THE START-UP POSITION WITH THE 'B' CONTROL ROOM VENTILATION (VI) EMERGENCY MAKE-UP TRAIN OUT OF SERVICE. AT THE TIME OF THE OCCURRENCE THE 'A' CONTROL ROOM EMERGENCY MAKE-UP TRAIN WAS AVAILABLE PROVIDING REDUNDANT FUNCTION. AN ACTION ITEM RECORD HAS BEEN GENERATED TO TRAIN SHIFT SRO'S ON THE EVENT TO MINIMIZE THE POSSIBILITY OF A RECURRENCE OF THE EVENT.

[127] LA SALLE 2 DOCKET 50-374 LER 84-016
 REACTOR WATER CLEANUP ISOLATES ON HIGH AMBIENT TEMPERATURE.
 EVENT DATE: 042384 REPORT DATE: 051684 NSSS: GE TYPE: BWR
 VENDOR: RILEY COMPANY, THE - PANALARM DIVISION

(NSIC 190258) WITH LA SALLE COUNTY STATION UNIT 2 OPERATING AT 16% POWER ON APR 23, 1984, A DIVISION 2 REACTOR WATER CLEANUP (CE) HIGH AMBIENT TEMPERATURE ISOLATION SIGNAL WAS RECEIVED AT 0810 HRS. THIS OCCURRED ABOUT 5 MINS AFTER THE INDIVIDUAL TEMPERATURE SWITCHES WERE CHECKED FOR CURRENT TEMPERATURE DATA. THE DATA SHOWED AMBIENT TEMPERATURES LESS THAN 85 F WHICH IS WELL BELOW THE TRIP SETPOINT OF 116 F. THE REACTOR WATER CLEANUP SYSTEM WAS CHECKED FOR ROOM LEAKS, AND WHEN NONE WERE FOUND, THE SYSTEM WAS RESTARTED. THE SAME SWITCHES WERE CHECKED AGAIN, BUT WITH THE ISOLATION TEST SWITCHES IN 'TEST'. THE SAME DIVISION 2 ISOLATION ALARM AS WELL AS THE HIGH DIFFERENTIAL TEMPERATURE ALARM CAME UP AFTER 5 1/2 MINS. A WORK REQUEST WAS WRITTEN TO FIND THE CAUSE OF THE UNWARRANTED ISOLATION SIGNAL AND A CAUTION CARD WAS PLACED TO WARN OF THE PROBLEM.

[128] LA SALLE 2 DOCKET 50-374 LER 84-012
 REACTOR MANUAL SCRAM DUE TO LOSS OF NORMAL FEEDWATER.
 EVENT DATE: 042684 REPORT DATE: 042784 NSSS: GE TYPE: BWR
 VENDOR: BAILEY INSTRUMENT CO., INC.

(NSIC 189680) AT 0510 ON APR 26, 1984, UNIT 2 WAS MANUALLY SCRAMMED. PRIOR TO THE SCRAM A SHUTDOWN WAS IN PROGRESS. REACTOR SCRAM WAS PERFORMED AS A PRECAUTION TO PREVENT EQUIPMENT DAMAGE. AT THE TIME OF THE EVENT THE MAIN CONDENSER HOTWELL LEVEL BECAME EXCESSIVELY LOW DUE TO A STUCK LEVEL RECORDER WHILE THE LEVEL CONTROL SYSTEM WAS OPERATING IN MANUAL. ALSO THE SUCTION STRAINERS FOR THE CONDENSATE PUMPS BECAME INCREASINGLY PLUGGED DUE TO PLACING THE FEEDWATER HEATERS ON LINE EARLIER FOR THE FIRST TIME CAUSING FOREIGN MATERIALS TO BE CARRIED OVER INTO THE CONDENSER. THEREFORE A POTENTIAL LOSS OF THE CONDENSATE SYSTEM WAS POSSIBLE. THE AFFECTED STRAINERS HAVE BEEN CLEANED AND THE STRAINERS AND CONDENSATE POLISHERS WILL BE CLOSELY WATCHED DURING SUBSEQUENT FEEDWATER HEATER EVOLUTIONS. THE LEVEL RECORDER WAS REPAIRED AND A SPECIAL LOG OF HOTWELL LEVEL INITIATED WHILE LEVEL CONTROL IS IN MANUAL.

[129] LA SALLE 2 DOCKET 50-374 LER 84-017
 REACTOR SCRAMS ON LOSS OF FEEDWATER.
 EVENT DATE: 050384 REPORT DATE: 052384 NSSS: GE TYPE: BWR

(NSIC 190259) THE UNIT 2 REACTOR WAS MANUALLY SCRAMMED ON 5/3/84 AT 2340 WHEN IT BECAME APPARENT THAT THE REACTOR VESSEL LEVEL COULD NOT BE MAINTAINED DUE TO THE LOSS OF THE MOTOR DRIVEN FEEDWATER PUMP (MDRFP). THE TURBINE DRIVEN FEEDWATER PUMPS WERE VALVED OUT DUE TO THE SHUTDOWN IN PROGRESS. THE LOSS OF THE MDRFP WAS DUE TO A NON-LICENSED OPERATOR VALVING ERROR. VALVE 2CB037 WAS CLOSED INSTEAD OF VALVE 2FW037. THESE VALVES ARE ONLY ABOUT 5 FT APART. ERROR WAS DUE TO NOT COMPLETELY READING THE VALVE NUMBER. A SIGN HAS BEEN PLACED ON THE 2CB037 VALVE

WHICH WAS IMPROPERLY CLOSED. PROCEDURES WHICH DEAL WITH THESE VALVES WILL BE REVIEWED TO ENSURE THEY ARE PROPER AND REVISED AS NECESSARY. THE MDRFP HAS BEEN REPAIRED.

[130] LACROSSE DOCKET 50-409 LER 84-006
 REACTOR SCRAM DUE TO HIGH POWER/FLOW SIGNAL.
 EVENT DATE: 041984 REPORT DATE: 051684 NSSS: AC TYPE: BWR

(NSIC 190133) THE REACTOR AUTOMATICALLY SCRAMMED FROM 99% RATED THERMAL POWER DUE TO A HIGH POWER/RECIRCULATION FLOW SIGNAL. HIGHER THAN ACTUAL INDICATED FLUX ON NUCLEAR INSTRUMENTATION CHANNEL NO. 8, PROBABLY DUE TO A DECREASE IN FEEDWATER FLOW AND REACTOR WATER LEVEL WHICH ALLOWED MORE NEUTRONS TO REACH THE DETECTOR, CAUSED THE POWER/RECIRCULATION FLOW SIGNAL TO EXCEED THE SCRAM SETPOINT. TROUBLESHOOTING WAS PERFORMED ON THE FEEDWATER CONTROL CIRCUIT. THE REACTOR WATER LEVEL CONTROLLER'S AUTO/MANUAL SWITCH WAS FOUND TO BE MALFUNCTIONING. SINCE THE SWITCH IS ALWAYS MAINTAINED IN THE "AUTO" POSITION BY A MECHANICAL COVER, IT WAS REWIRED TO BE PERMANENTLY IN THE "AUTO" POSITION. THE REWIRING SHOULD HELP PREVENT A REOCCURRENCE OF THE PROBLEM. NUCLEAR INSTRUMENTATION (NI) CHANNEL 8 WAS TESTED WITH SATISFACTORY RESULTS. NI CHANNEL 8 HAS BEEN THE MOST SENSITIVE CHANNEL IN RESPONDING TO OTHER CHANGING PARAMETERS ALSO.

[131] MAINE YANKEE DOCKET 50-309 LER 84-003
 THE INADVERTENT OPENING OF A SAFEGUARDS VALVE SUPPLY BREAKER.
 EVENT DATE: 032784 REPORT DATE: 042584 NSSS: CE TYPE: PWR

(NSIC 189715) WHILE OPERATING AT 85% POWER DURING COASTDOWN OPERATIONS PRIOR TO A SCHEDULED REFUELING OUTAGE, THE POWER SUPPLY BREAKER FOR A SAFEGUARDS MOTOR OPERATED VALVE WAS FOUND OPEN FOR AN UNKNOWN REASON, RENDERING THE VALVE INOPERABLE. THE VALVE NORMALLY OPENS ON A RECIRCULATION ACTUATION SIGNAL TO SUPPLY ONE HIGH PRESSURE SAFETY INJECTION PUMP WITH ADEQUATE NPSH FOR LONG TERM CORE COOLING FLOW. INVESTIGATION BY PLANT SECURITY PERSONNEL DETERMINED THAT THE EVENT WAS ACCIDENTAL. CONTRACTOR PERSONNEL, WHO HAD BEEN WORKING IN CLOSE PROXIMITY TO THE MOTOR CONTROL CENTER BREAKER LOCATION APPROXIMATELY 12 HOURS BEFORE THE BREAKER WAS DISCOVERED OPEN, MAY HAVE INADVERTENTLY KICKED IT OPEN. THE VALVE COULD HAVE BEEN OUT OF SERVICE FOR UP TO 12 HOURS PRIOR TO DISCOVERY, THEREFORE, THE PLANT MAY HAVE OPERATED IN A DEGRADED MODE FOR A PERIOD OF TIME LONGER THAN THAT PERMITTED BY TECH SPECS. THE OPPOSITE ECCS TRAIN WAS OPERABLE DURING THE EVENT. THE BREAKER WAS CLOSED AND THE VALVE WAS TESTED OPERABLE WITHIN 10 MINUTES OF DISCOVERY OF THE OPEN BREAKER. A CORRECTIVE ACTION TO PREVENT RECURRENCE OF THIS EVENT WILL BE IMPLEMENTED PRIOR TO STARTUP FROM THE CURRENT REFUELING OUTAGE. MAINE YANKEE IS EXPLORING SEVERAL OPTIONS INTENDED TO ASSIST THE LICENSED OPERATORS IN IDENTIFYING SAFEGUARD VALVES WHICH ARE NOT IN THE PROPER POSITION FOR NORMAL PLANT OPERATION.

[132] MAINE YANKEE DOCKET 50-309 LER 84-004
 REFUELING WATER STORAGE TANK SIPHON HEATER RETURN LINE LEAK.
 EVENT DATE: 033084 REPORT DATE: 043084 NSSS: CE TYPE: PWR

(NSIC 189716) WHILE AT 84% POWER A GASKET FAILED IN THE SIPHON HEATER RETURN LINE TO THE REFUELING WATER STORAGE TANK. SLIGHTLY RADIOACTIVE WATER FROM THE TANK SPILLED ONTO THE GROUND, RAN INTO A NEARBY STORM DRAIN, AND MIXED WITH CIRCULATING WATER LEAVING THE PLANT. IMMEDIATE RADIOLOGICAL CONTROLS CONFINED CONTAMINATION TO THE LEAK SITE AND GROUND LEADING TO THE STORM DRAIN. WITHIN THREE HOURS THE LEAKAGE HAD BEEN REDUCED TO LESS THAN 1.0 GPM AND CHANNLED INTO A TEMPORARY TANK FOR PROCESSING IN THE LIQUID WASTE MANAGEMENT SYSTEM. A PERMANENT REPAIR WAS ACCOMPLISHED BY GASKET REPLACEMENT. THIS REPORT IS NOT REPORTABLE UNDER THE REQUIREMENTS OF TITLE 10 OF THE CODE OF FEDERAL REGULATIONS. THIS REPORT IS SUBMITTED ON A VOLUNTARY BASIS FOR INFORMATIONAL PURPOSES ONLY.

[133] MAINE YANKEE DOCKET 50-309 LER 84-006
 INADVERTENT SIAS OCCURS FOLLOWING SIAS LOGIC SURVEILLANCE INADVERTENT SAFETY
 INJECTION ACTUATION.
 EVENT DATE: 040584 REPORT DATE: 050784 NSSS: CE TYPE: PWR
 VENDOR: FISCHER & PORTER CO.

(NSIC 189717) THIS EVENT OCCURRED WHEN THE PLANT WAS IN THE REFUELING SHUTDOWN CONDITION, WITH THE SAFETY INJECTION ACTUATION SIGNAL (SIAS) IN BLOCK MODE. A TECHNICIAN WAS CALIBRATING THE SIAS SAFEGUARD CHANNELS. WHEN THE TECHNICIAN COMPLETED THE PROCEDURE HE TURNED OFF HIS CURRENT CALIBRATOR PRIOR TO DISCONNECTING FROM THE SIAS CIRCUITRY. THE CALIBRATOR CONTAINS A STORED ENERGY SOURCE WHICH IMMEDIATELY DISCHARGED INTO THE SIAS LOGIC CIRCUITRY. THIS CAUSED SIAS TO AUTOMATICALLY UNBLOCK AND ACTUATE. SINCE REACTOR COOLANT SYSTEM PRESSURE WAS ZERO, THE OPERATIONAL CONSEQUENCES OF THIS EVENT WERE MINIMAL. THE PLANT WAS SHUT DOWN WITH ALL THREE HIGH PRESSURE SAFETY INJECTION PUMPS DE-ENERGIZED. ALL EQUIPMENT ACTIVATED BY THE SIAS WAS QUICKLY RETURNED TO THE DESIRED OPERATING CONFIGURATION. AN INSTRUMENT AND CONTROLS SECTION BRIEFING WAS HELD TO DISCUSS THE IMPLICATIONS OF THIS TYPE OF PROBLEM AND A PRECAUTIONARY STEP WAS ADDED TO THE CALIBRATION PROCEDURE.

[134] MCGUIRE 1 DOCKET 50-369 LER 84-014
 DIESEL GENERATOR STARTS FOLLOWING BUS TRIP.
 EVENT DATE: 042084 REPORT DATE: 052184 NSSS: WE TYPE: PWR

(NSIC 190128) PERSONNEL ATTEMPTING TO TEST THE UNIT 1 ENGINEERED SAFETY FEATURES (ESF) ACTUATION OF UNIT 2 NUCLEAR SERVICE WATER NON-ESSENTIAL HEADER ISOLATION VALVE 2RN-43A INADVERTENTLY TRIPPED THE NORMAL INCOMING CIRCUIT BREAKER TO ESSENTIAL 4160V SWITCHGEAR 1ETA, DEENERGIZING THE BUS AT 1406 ON APR 20, 1984. DIESEL GENERATOR LOAD SEQUENCER 1A RESPONDED AS DESIGNED; SHEDDING LOADS FROM 1ETA, STARTING DG 1A, CLOSING THE DG CIRCUIT BREAKER, AND STARTING BLACKOUT LOADS THAT WERE AVAILABLE. UNIT 1 WAS IN MODE 5 AT THE TIME OF THE EVENT. THIS EVENT IS ATTRIBUTED TO PERSONNEL ERROR BECAUSE A JUMPER WIRE WAS ATTACHED TO THE WRONG PLACE IN THE CIRCUIT BEING TESTED, AND WAS INDEPENDENTLY VERIFIED AS BEING CORRECTLY INSTALLED. ALSO CONTRIBUTING TO THE EVENT WAS ADMINISTRATIVE/PROCEDURAL DEFICIENCY, DUE TO AN ERRONEOUS PROCEDURE AND MISLEADING ELECTRICAL ELEMENTARY DRAWINGS. OPERATORS RETURNED OFFSITE POWER TO 1ETA BY CLOSING THE NORMAL INCOMING CIRCUIT BREAKER. THE DG WAS THEN SHUT DOWN AND UNNECESSARY EQUIPMENT STOPPED. VALVE 2RN-43A WAS SUCCESSFULLY TESTED. APPROPRIATE PERSONNEL WILL BE COUNSELED.

[135] MCGUIRE 2 DOCKET 50-370 LER 84-011
 CONTROL SYSTEM POWER FAILURE CAUSES A TURBINE AND REACTOR TRIP.
 EVENT DATE: 042384 REPORT DATE: 052384 NSSS: WE TYPE: PWR

(NSIC 189678) ON APR 23, 1984 AT 0057, CONTROL ROOM ANNUNCIATOR "PROCESS CONTROL SYSTEM POWER SUPPLY FAILURE PROTECTION CABINET I" ALARMED AND STATUS ALARMS INDICATED A LOSS OF CHANNEL 1, WHICH WAS BEING USED FOR STEAM GENERATOR AND PRESSURIZER CONTROL. ALL 4 STEAM GENERATOR LEVELS BEGAN INCREASING BECAUSE THE 4 FEEDWATER REGULATOR VALVES OPENED. THE CONTROL OPERATORS PLACED THE 4 SG LEVEL CONTROLS INTO "MANUAL". ONE CONTROL OPERATOR MADE ADJUSTMENTS WITH THE LEVEL CONTROLLERS TO DECREASE LEVELS IN SG'S A AND B. ANOTHER CONTROL OPERATOR WAS ENSURING THAT THE CONTROLS WERE CHANGED FROM CHANNEL 1 TO CHANNEL 2. THEN HE BEGAN TO MAKE LEVEL ADJUSTMENTS ON SG'S C AND D. THE ADJUSTMENTS ON SG'S C AND D WERE NOT MADE IN TIME, WHICH ALLOWED SG D TO REACH THE HI-HI LEVEL TRIP SETPOINT AT 82% AT 0100. UNIT 2 WAS IN MODE 1, AT 100% POWER, AT THE TIME OF THE TURBINE/REACTOR TRIP. THIS EVENT IS ATTRIBUTED TO COMPONENT FAILURE DUE TO THE FAILURE OF THE MAIN POWER SUPPLY IN THE PROCESS CONTROL SYSTEM PROTECTION CABINET I. DESIGN DEFICIENCY ALSO CONTRIBUTED TO THE EVENT BECAUSE POWER TO BOTH THE MAIN AND BACK-UP POWER SUPPLIES IN EACH PROTECTION CABINET IS SUPPLIED BY 1

SUPPLY BREAKER FOR EACH CABINET. THE DEFECTIVE POWER SUPPLY WAS REPLACED WITH A SPARE, AND OPERATING PROCEDURES WERE REVISED. MODIFICATIONS WILL BE MADE TO PLACE THE BACK UP POWER SUPPLIES ON SEPARATE SUPPLY BREAKERS. THE REACTOR TRIPPED DUE TO A TURBINE TPIP ABOVE 42% POWER.

[136] MILLSTONE 1 DOCKET 50-245 LER 84-003E
SILVER CONCENTRATION IN OYSTERS EXCEEDS LIMIT.
EVENT DATE: 021384 REPORT DATE: 031684 NSSS: GE TYPE: BWR

(NSIC 190282) OVERLY CONSERVATIVE REPORTING REQUIREMENTS. A GAMMA SCAN PERFORMED ON 2 OYSTERS INDICATED THE PRESENCE OF AG-110M AT CONCENTRATIONS OF .25 PLUS OR MINUS 0.3 PCI/G AND .30 PLUS OR MINUS .02 PCI/G. THIS EXCEEDED THE CONTROL STATION AVERAGE ACTIVITY BY GREATER THAN A FACTOR OF TEN. THIS, THE DOSE CONSEQUENCE OF THIS EVENT IS INSIGNIFICANT. THE REPORTING REQUIREMENT IS OVERLY CONSERVATIVE. IN ORDER TO PREVENT FUTURE OVER-CONSERVATIVE REPORTS, PROPOSED RADIOLOGICAL EFFLUENT TECH SPECS WERE SUBMITTED TO THE NRC IN NOV. 1982. ONCE APPROVED, THESE SPECIFICATIONS WILL HAVE MORE REALISTIC REPORTING REQUIREMENTS.

[137] MILLSTONE 1 DOCKET 50-245 LER 84-006
REACTOR SCRAMS ON IRM SPIKE.
EVENT DATE: 041884 REPORT DATE: 051784 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CO.

(NSIC 189650) ON APRIL 18, 1984, AT 1255 HOURS, A SPURIOUS ELECTRONIC NOISE SPIKE IN THE REACTOR PROTECTION SYSTEM GENERATED AN INTERMEDIATE RANGE MONITOR HI HI CONDITION AND SUBSEQUENT REACTOR SCRAM. THERE WERE NO CONSEQUENCES. THE PLANT WAS SHUT DOWN FOR A PLANNED REFUEL OUTAGE WITH ALL RODS FULLY INSERTED AND NO FUEL MOVEMENT IN PROGRESS. THE PROBABLE CAUSE OF THE NOISE SPIKE WAS ONGOING PLANT MAINTENANCE ACTIVITIES.

[138] MILLSTONE 1 DOCKET 50-245 LER 84-009
HYDRAULIC SNUBBER FAILS.
EVENT DATE: 042584 REPORT DATE: 052584 NSSS: GE TYPE: BWR
VENDOR: BERGEN-PATTERSON PIPE SUPPORT CORPORATION

(NSIC 190245) ON APR 25, 1984, AT 0920 HRS, WHILE PERFORMING HYDRAULIC SNUBBER FUNCTIONAL TEST IN ACCORDANCE WITH TECH SPEC 4.6.I.3, SNUBBER NUMBER HSS-29 FAILED TO MEET BLEED RATE TENSION AND COMPRESSION REQUIREMENTS. ADDITIONALLY, INSPECTION OF THE SNUBBER REVEALED A MISSING WELD ON THE BUSHING WHERE THE SNUBBER FITS INTO THE BORE OF THE STRUT. AS REQUIRED BY TECH SPECS, AN ADDITIONAL SAMPLE OF 10 SNUBBERS WILL BE FUNCTIONALLY TESTED. ADDITIONAL INFORMATION, INCLUDING CAUSES AND CORRECTIVE ACTION FOR THIS SNUBBER AND ANY ADDITIONAL SNUBBERS THAT MAY NOT MEET THE SPECIFIC DESIGN ACCEPTANCE CRITERIA WILL BE PROVIDED IN A SUPPLEMENTAL REPORT. THE PLANT IS PRESENTLY SHUT DOWN FOR A PLANNED REFUEL OUTAGE.

[139] MILLSTONE 1 DOCKET 50-245 LER 84-008
ASME CLASS I PIPE WELD CRACKS FOUND.
EVENT DATE: 042784 REPORT DATE: 052484 NSSS: GE TYPE: BWR

(NSIC 190244) ON APR 27, AND MAY 7, 1984, AS A RESULT OF PERFORMING INSERVICE INSPECTION ON CLASS I SYSTEMS FOR THE 1984 REFUEL OUTAGE, INTERGRANULAR STRESS CORROSION CRACKING (IGSCC) WAS IDENTIFIED WITHIN THE HEAT AFFECTED ZONE OF CORE SPRAY WELD NUMBER CSBJ-12, CLEAN-UP WELD NUMBER CUAJ-22 AND REACTOR RECIRCULATION WELD NUMBER RRAJ-4. AS CORRECTIVE ACTION, DESIGN CHANGES HAVE BEEN GENERATED TO RESTORE THE PIPING SYSTEMS TO THEIR ORIGINAL DESIGN INTEGRITY. THE AFFECTED CORE SPRAY AND CLEAN-UP PIPING WILL BE CUT, REMOVED AND REPLACED WITH A MATERIAL THAT

RESISTS IGSCC. THE AFFECTED REACTOR RECIRCULATION PIPING WILL BE REPAIRED USING A WELD METAL BUILDUP PROCESS KNOWN AS WELD OVERLAY. THESE REPAIRS ARE SCHEDULED FOR COMPLETION PRIOR TO STARTUP. ANY ADDITIONAL FINDINGS WILL BE SUBMITTED IN AN UPDATE REPORT.

[140] MILLSTONE 2 DOCKET 50-336 LER 82-008 REV 1
 UPDATE ON REACTOR COOLANT PUMP SPEED SENSING BISTABLE TRIP SETPOINT DRIFT.
 EVENT DATE: 040282 REPORT DATE: 040284 NSSS: CE TYPE: PWR
 VENDOR: GENERAL ATOMIC CO.

(NSIC 190227) THE PLANT WAS IN STEADY STATE OPERATION AT 95% POWER. DURING THE MONTHLY SURVEILLANCE TESTING, THE SETPOINT FOR THE REACTOR COOLANT PUMP SPEED SENSING BISTABLE TRIP, ON CHANNEL B, WAS FOUND TO BE OUT OF SPECIFICATION IN A NON-CONSERVATIVE DIRECTION. THE PLANT WAS OPERATED IN ACCORDANCE WITH ACTION STATEMENT 2 OF TECH SPEC 4.3.1.1.1. SIMILAR OCCURRENCES: THE FOLLOWING LER'S ALL DEALT WITH INSTRUMENT DRIFT WITH THE GENERAL ATOMIC BISTABLE TRIP UNITS, 76-48, 78-24, 79-24, 81-16. THE CAUSE OF THE OUT OF SPECIFICATION SETPOINT WAS INSTRUMENT DRIFT WITHIN THE GULF ATOMIC BISTABLE TRIP UNIT, MODEL ELD-240. THE BISTABLE WAS IMMEDIATELY ADJUSTED TO TRIP WITHIN THE ALLOWABLE TOLERANCES. THE BISTABLE TRIP UNIT WAS REPLACED DURING THE 1984 REFUEL OUTAGE. THE NEW BISTABLE TRIP UNIT (ELECTRO-MECHANICS, MODEL 34860) WILL ENHANCE THE RELIABILITY OF THE AUCTIONEERED PROCESS LOOP SIGNALS.

[141] MILLSTONE 2 DOCKET 50-336 LER 84-007
 MISSED SURVEILLANCE.
 EVENT DATE: 042784 REPORT DATE: 052584 NSSS: CE TYPE: PWR

(NSIC 189959) DURING THE MONTH OF MAR 1984, WHILE AT 100% POWER, THE MONTHLY SURVEILLANCE FOR THERMAL MARGIN/LOW PRESSURE OPERABILITY CHECK WAS MISSED. THE SURVEILLANCE REQUIRED BY TECH SPEC 4.3.1.1.1, WAS MISSED DUE TO AN INSTRUMENT TECHNICIAN/ASSISTANT SUPERVISOR MISCOMMUNICATION. ANOTHER SURVEILLANCE WAS EXTRACTED FROM FILES AND PERFORMED IN IT'S PLACE. THE ASSISTANT SUPERVISOR THEN SIGNED OFF THE SURVEILLANCE AS COMPLETED. UPON DISCOVERY A REVIEW OF THE APRIL SURVEILLANCE VERIFIED THAT ALL 4 CHANNELS HAD REMAINED WITHIN SPECIFICATIONS. TO PREVENT A RECURRENCE THE I&C PREVENTATIVE MAINTENANCE PROGRAM WILL TRACK ALL I&C SURVEILLANCES AND THE ASSISTANT SUPERVISOR WILL BE RESPONSIBLE FOR OBTAINING THE CORRECT FORMS AS THE SURVEILLANCES ARE ASSIGNED. SIMILAR LERS: 78-25, 81-35, 81-45, 82-20, 82-34, 83-2.

[142] MONTICELLO DOCKET 50-263 LER 83-024
 REACTOR LOW LOW SCRAM SWITCH FAILS DUE TO SETPOINT DRIFT.
 EVENT DATE: 102783 REPORT DATE: 112383 NSSS: GE TYPE: BWR
 VENDOR: YARWAY CORP.

(NSIC 190230) DURING A ROUTINE SURVEILLANCE TEST, REACTOR LOW LEVEL SCRAM SWITCH LIS 2-3-57B WAS FOUND TO TRIP OUTSIDE OF THE ALLOWABLE DEVIATION ESTABLISHED BY TECH SPEC 3.1. TECH SPEC TABLE 3.1.1 ITEM 7 AND ACCOMPANYING NOTE 6 CALL FOR THE SETTING TO BE GREATER THAN 10'6" ABOVE ACTIVE FUEL. AS FOUND, SETTING WAS 9' 7-1/2" ABOVE ACTIVE FUEL. THE REDUNDANT SWITCHES WERE OPERABLE. EVENT CAUSED BY SETPOINT DRIFT. SWITCH IS A YARWAY TYPE 4418C. SWITCH RECALIBRATED AND PLACED ON ACCELERATED SURVEILLANCE SCHEDULE. REDUNDANT SWITCHES TESTED SATISFACTORILY.

[143] MONTICELLO DOCKET 50-263 LER 83-025
 ONE LOOP OF RHR SW DECLARED INOPERABLE.
 EVENT DATE: 120283 REPORT DATE: 123083 NSSS: GE TYPE: BWR
 VENDOR: POWELL, WILLIAM COMPANY, THE

(NSIC 190231) DURING MONTHLY SURVEILLANCE OF RHRSW SYSTEMS, #12 RHRSW PUMP DISCHARGE CHECK VALVE, RHRSW 1-2, FAILED TO SEAT PROPERLY. RHRSW B LOOP DECLARED INOPERABLE TO REPAIR #12 RHRSW PUMP DISCHARGE CHECK VALVE AND PERFORM MINOR WORK ON #14 RHRSW PUMP. TECH SPEC 3.5.C.3 ALLOWS ONE RHRSW LOOP TO BE INOPERABLE FOR 7 DAYS. REPORTED PER TECH SPEC 6.7.B.2.B. REPAIRS WERE COMPLETED IN 2 DAYS. NO PREVIOUS SIMILAR OCCURRENCES. REDUNDANT LOOP WAS OPERABLE AND TESTED DAILY PER TECH SPEC 4.5.C.3. VALVE DISC FAILED TO SEAT PROPERLY BECAUSE OF EXCESSIVE DISC STUD THREAD WEAR, PREVENTING PROPER DISC SEAT ALIGNMENT. WM. POWELL, 12", 300# SWING CHECK VALVE. WELD MATERIAL ADDED TO STUD, NEW THREADS MACHINED TO ACCOMMODATE ORIGINAL NUT. REMAINING RHRSW PUMP DISCHARGE CHECK VALVES WILL BE INSPECTED NEXT OUTAGE. RHRSW OPERABILITY TEST PERFORMED AFTER REPAIRS.

[144] MONTICELLO DOCKET 50-263 LER 84-011 REV 1
 UPDATE ON CRACK INDICATIONS ON PRIMARY SYSTEM PRESSURE BOUNDARY PIPING.
 EVENT DATE: 021884 REPORT DATE: 051584 NSSS: GE TYPE: BWR

(NSIC 190102) CRACK INDICATIONS HAVE BEEN FOUND IN THE FOLLOWING LOCATIONS: 1. RECIRCULATION SYSTEM SENSING LINE PENETRATION PIPING (PREVIOUSLY REPORTED IN LER 84-011-00), 2. RESIDUAL HEAT REMOVAL SYSTEM (PREVIOUSLY REPORTED IN LER 84-011-00), 3. RECIRCULATION SYSTEM PUMP SUCTION AND DISCHARGE VALVES, 4. RECIRCULATION SYSTEM DISCHARGE RISER "D" SAFE END. THE DEGRADED PIPING WILL BE REPLACED WITH IGSCC RESISTANT MATERIAL. THE VALVE MATERIAL WITH INDICATIONS WILL BE MACHINED SO AS TO REMOVE ALL AFFECTED MATERIAL.

[145] MONTICELLO DOCKET 50-263 LER 84-016
 SPURIOUS FUEL POOL MONITOR TRIP.
 EVENT DATE: 040884 REPORT DATE: 050884 NSSS: GE TYPE: BWR

(NSIC 189702) A SPURIOUS TRIP OF THE CHANNEL B FUEL POOL MONITOR ISOLATED THE REACTOR BUILDING VENTILATION AND STARTED THE STANDBY GAS TREATMENT SYSTEM.

[146] MONTICELLO DOCKET 50-263 LER 84-017
 EMERGENCY MODE OF CONTROL ROOM HVAC ACTUATED BY AMMONIA MONITOR TRIP.
 EVENT DATE: 042584 REPORT DATE: 052584 NSSS: GE TYPE: BWR

(NSIC 190103) THE EFT SYSTEM (CONTROL ROOM HVAC) TRANSFERRED TO THE EMERGENCY MODE WHEN THE AMMONIA MONITOR TAPE CASSETTE RAN OUT RESULTING IN A SPURIOUS TRIP OF THE MONITOR.

[147] MONTICELLO DOCKET 50-263 LER 84-018
 REACTOR BUILDING ISOLATION BY WIDE RANGE GAS MONITORS
 EVENT DATE: 042584 REPORT DATE: 052284 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ATOMIC CO.

(NSIC 190149) THE CHANNEL B REACTOR BLDG VENTILATION MONITOR ISOLATED THE REACTOR BLDG VENTILATION AND STARTED THE STANDBY GAS TREATMENT SYSTEM WHEN A NOISE SPIKE CAUSED IT TO REGISTER HIGH RADIATION.

[148] MONTICELLO DOCKET 50-263 LER 84-019
 EMERGENCY MODE OF CONTROL ROOM HVAC ACTUATED BY CHLORINE DETECTOR TRIP.
 EVENT DATE: 042784 REPORT DATE: 052984 NSSS: GE TYPE: BWR

(NSIC 189703) THE EFT SYSTEM (CONTROL ROOM HVAC) TRANSFERRED TO THE EMERGENCY MODE AS THE RESULT OF A TAPE CASSETTE JAM AND SUBSEQUENT SPURIOUS TRIP OF A CHLORINE MONITOR.

[149] NINE MILE POINT 1 DOCKET 50-220 LER 83-025E
 LLD FOR FISH ANALYSES NOT MET.
 EVENT DATE: 050183 REPORT DATE: 092383 NSSS: GE TYPE: BWR

(NSIC 190281) TEST PROCEDURE. WHILE REVIEWING ENVIRONMENTAL RADIATION FISH ANALYSIS SAMPLE DATA, IT WAS DETERMINED THAT THE LOWER LIMIT OF DETECTION SENSITIVITY (LLD) WAS NOT MET FOR SEVERAL RADIONUCLIDES DURING ANALYSIS OF MAY FISH SAMPLES (ENV. TECH SPEC TABLE 3.2-1 APPLIES). LERS 81-10, 81-51, 82-07, 82-12, AND 83-03 REPORTED SIMILAR OCCURRENCES. THE STATION TECH SPECS SPECIFY RADIOLOGICAL FISH ANALYSIS LLD TO BE 80 PCI/KG DRY WEIGHT. WHEN LABORATORY TEST DATA WAS CONVERTED FROM WET WEIGHT UNITS TO DRY WEIGHT UNITS, HIGHER LLD VALUES RESULTED. RADIOLOGICAL EFFLUENT TECH SPECS (RETS) ARE IN THE PROCESS OF BEING SUBMITTED TO UPDATE THIS PARAMETER TO THE CURRENT REGULATORY GUIDE VALUES; RECURRENCE OF THIS PROBLEM IS EXPECTED UNTIL THE RETS PROPOSAL IS APPROVED.

[150] NINE MILE POINT 1 DOCKET 50-220 LER 84-003
 TWELVE REACTOR HEAD SAFETY VALVES FAIL.
 EVENT DATE: 041284 REPORT DATE: 051284 NSSS: GE TYPE: BWR
 VENDOR: DRESSER INDUSTRIAL VALVE & INST DIV

(NSIC 189647) DURING THE CURRENT REFUELING OUTAGE, PROBLEMS WITH THE TESTING OF DRESSER SAFETY VALVES WERE ENCOUNTERED WHICH RESULTED IN THE INABILITY OF THE VALVES TO BE POPPED WITHIN PLUS OR MINUS 1% OF SET PRESSURE. THE CAUSE OF THE FAILURES IS UNDETERMINED BUT TEST LABORATORY PERSONNEL SUGGEST THAT THE FAILURES ARE DUE TO NORMAL WEAR AND TEAR ON THE VALVES DURING THEIR SERVICE LIVES. IN TOTAL, 12 OF THE 16 REACTOR HEAD SAFETY VALVES WERE FOUND TO BE OUTSIDE THE PLUS OR MINUS 1% TOLERANCE. CORRECTIVE ACTION TAKEN WAS TO DISASSEMBLE AND REPAIR THE VALVES.

[151] NINE MILE POINT 1 DOCKET 50-220 LER 84-006
 SCRAM DUE TO LOSS OF REACTOR PROTECTION SYSTEM BUSES.
 EVENT DATE: 041384 REPORT DATE: 051484 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 189648) DURING A REFUELING OUTAGE, WHILE PERFORMING MAINTENANCE ON AK BREAKERS, A NORMALLY OPEN TIE BREAKER WAS CLOSED TO FEED A POWERBOARD WHILE ANOTHER WAS OPENED TO PERFORM MAINTENANCE. SUBSEQUENT TO THIS ACTION, THE BREAKER FEEDING POWER TRIPPED OPEN DUE TO DIRTY CONTACTS CAUSING THE LOSS OF POWER TO THIS POWERBOARD. DUE TO A PERMISSABLE, BUT ABNORMAL BUS ALIGNMENT, A REACTOR PROTECTION SYSTEM (RPS) BUS, A REACTOR TRIP BUS, AND AN AREA RADIATION MONITOR FOR THE REFUEL BRIDGE LOST POWER. THIS RESULTED IN A FULL SCRAM SIGNAL AND THE INITIATION OF THE REACTOR BUILDING EMERGENCY VENT SYSTEM.

[152] NORTH ANNA 1 DOCKET 50-338 LER 84-004
 SEVERAL FIRE PROTECTION DEFICIENCIES FOUND.
 EVENT DATE: 050284 REPORT DATE: 052484 NSSS: WE TYPE: PWR
 OTHER UNITS INVOLVED: NORTH ANNA 2 (PWR)

(NSIC 189960) ON MAY 1, 1984, THE PRELIMINARY RESULTS OF A FIRE PROTECTION PROGRAM REANALYSIS, PROMPTED BY FURTHER INFORMATION OF THE 10 CFR 50 APPENDIX R REQUIREMENTS, WAS SUBMITTED TO NRC/NRR DIVISION OF LICENSING. THIS REPORT INCLUDED A DESCRIPTION OF PROPOSED MODIFICATIONS NECESSARY TO MEET THE APPENDIX R REQUIREMENTS AND SEVERAL INSTANCES WHERE PREVIOUSLY INSTALLED OR PROPOSED MODIFICATIONS REQUIRE UPGRADING. IN ADDITION, 17 EXEMPTION REQUESTS WITH THE REQUIRED JUSTIFICATION WERE ALSO SUBMITTED. THE REANALYSIS FINDINGS INDICATED THAT THERE ARE 6 INSTANCES OF PREVIOUSLY INSTALLED EQUIPMENT NOT MEETING THE REQUIREMENTS OF 10 CFR 50 APPENDIX R. THESE DETERMINATIONS WERE MADE AFTER A REAPPRAISAL OF THE APPENDIX R REQUIREMENTS AND RECENT REGULATORY CLASSIFICATIONS.

[153] NORTH ANNA 2 DOCKET 50-339 LER 84-004
 SURVEILLANCE INTERVAL EXCEEDED ON MOV THERMAL OVERLOAD DEVICES.
 EVENT DATE: 030884 REPORT DATE: 053184 NSSS: WE TYPE: PWR

(NSIC 189729) ON MARCH 8, 1984, WITH UNIT 2 OPERATING AT 100 PERCENT RATED THERMAL POWER, ENGINEERING PERSONNEL DISCOVERED THAT THE THERMAL OVERLOAD DEVICES ON SAFETY RELATED MOTOR OPERATED VALVES HAD NOT BEEN CALIBRATED WITHIN THE SPECIFIED SURVEILLANCE INTERVAL REQUIRED BY TECH SPEC 4.8.2.6.B. TWENTY-FIVE PERCENT OF THE MOTOR OPERATED VALVES IN TECH SPEC TABLE 3.8-2 WERE DECLARED INOPERABLE AND THEIR RESPECTIVE THERMAL OVERLOAD DEVICES WERE SUBSEQUENTLY CALIBRATED. THE CAUSE OF THE MISSED SURVEILLANCE WAS PERSONNEL ERROR. THE PROCEDURE PREVIOUSLY BELIEVED TO CALIBRATE THE THERMAL OVERLOAD DEVICES IN FACT ONLY TESTED THE BREAKER INTERNAL OVERLOADS. A PROCEDURE FOR VERIFYING THAT THE DEVICES ARE IN CALIBRATION WAS IMPLEMENTED AND A TOTAL OF 50 PERCENT OF THE THERMAL OVERLOAD DEVICES WERE TESTED AND FOUND SATISFACTORY. CORRECTIVE ACTIONS TAKEN TO PREVENT RECURRENCE WERE TO INCORPORATE THE NEW PROCEDURE INTO THE PERIODIC TEST SCHEDULING SYSTEMS. THE REMAINING 50 PERCENT OF THE THERMAL OVERLOAD DEVICES WILL BE TESTED DURING THE NEXT REFUELING OUTAGE.

[154] NORTH ANNA 2 DOCKET 50-339 LER 84-002
 MANUAL REACTOR TRIP FROM 2% POWER DUE TO LOSS OF NORMAL FEEDWATER.
 EVENT DATE: 050584 REPORT DATE: 051784 NSSS: WE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 189899) ON MAY 5, 1984, DURING A SCHEDULED RAMPDOWN FOR REACTOR TRIP BREAKER MAINTENANCE, UNIT 2 WAS MANUALLY TRIPPED FROM 2% POWER AFTER RECEIVING AN AUTOMATIC TURBINE TRIP SIGNAL AND A LOSS OF NORMAL FEEDWATER. THE TURBINE TRIP SIGNAL WAS DUE TO HIGH WATER LEVEL IN THE 5B FEEDWATER HEATER. A HI-HI LEVEL IN A 5TH POINT FEEDWATER HEATER CAUSES A TRIP OF THE MAIN CONDENSATE AND FEEDWATER PUMPS AND OPENS THE CONDENSER VACUUM BREAKER. THE REACTOR DID NOT RECEIVE AN AUTOMATIC REACTOR TRIP SINCE THE UNIT WAS BELOW THE P-10 SETPOINT OF 10% POWER. ALL AUTOMATIC REACTOR FEATURES FUNCTIONED NORMALLY. THE IRPI FOR CONTROL ROD H-14 INDICATED 25 STEPS AFTER THE TRIP. THE REACTOR WAS EMERGENCY BORATED FOR AT LEAST 7 MINUTES DUE TO THE APPARENT STUCK ROD. THE UNIT WAS STABLE IN MODE 3 IMMEDIATELY AFTER THE TRIP. THE 5B FEEDWATER HEATER LEVEL WAS ONLY HIGH FOR A FEW SECONDS. ONCE THE LEVEL DROPPED BACK BELOW THE HI-HI SETPOINT, NORMAL FEEDWATER WAS RESTORED AND THE AUXILIARY FEEDWATER PUMPS WERE SECURED.

[155] NORTH ANNA 2 DOCKET 50-339 LER 84-003
 REACTOR TRIP BREAKER MAINTENANCE.
 EVENT DATE: 050584 REPORT DATE: 051784 NSSS: WE TYPE: PWR

(NSIC 189961) ON MAY 5, 1984, UNIT 2 WAS TAKEN OFF LINE IN ORDER TO PERFORM MAINTENANCE AND TESTING ON THE REACTOR TRIP BREAKERS. THE MAINTENANCE AND TESTING WAS COMPLETED AND THE UNIT WAS BACK ON LINE AT 0055 ON MAY 8, 1984. THE MAINTENANCE PERFORMED WAS PREVENTATIVE AND INVOLVED DETAILED INSPECTIONS AND LUBRICATION. THE TESTS WERE TO DETECT LONG TERM DEGRADATION BY MEASURING UV COIL DROP OUT VOLTAGE, TRIP BAR ACTUATION FORCE AND FUNCTIONAL TESTING WITH ADDITIONAL WEIGHT ON THE TRIP BAR TO INCREASE THE FORCE REQUIRED TO TRIP THE BREAKER. SEVERAL MINOR PROBLEMS WERE DISCOVERED, NONE OF WHICH WOULD HAVE IMPAIRED BREAKER OPERATION.

[156] OYSTER CREEK DOCKET 50-219 LER 84-002
 FAILURE OF THE UNDERVOLTAGE TRIP DEVICE.
 EVENT DATE: 030284 REPORT DATE: 041984 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 189645) THE UNIT SUB-STATION (USS) CIRCUIT BREAKER TO MOTOR CONTROL CENTER

(MCC) 1B32 FAILED TO TRIP WHEN THE UNDERVOLTAGE DEVICE WAS DE-ENERGIZED. ALSO THE CIRCUIT BREAKERS TO THE SHUTDOWN COOLING PUMP (SDC) NU02B AND THE BUILDING EXHAUST FAN EF-1-6 FAILED TO TRIP WITHIN THE SPECIFIED TIME LIMIT IN THE PROCEDURE WHEN THEIR UV DEVICES WERE DE-ENERGIZED. THIS OCCURRENCE MAY HAVE AFFECTED THE EMERGENCY DG LOADING AND ITS LOADING SEQUENCE AS SPECIFIED IN THE TECH SPECS, SECTION 3.1, TABLE 3.1.1. THESE EVENTS IN THEMSELVES ARE NOT CONSIDERED TO BE REPORTABLE, BUT ARE BEING REPORTED UNDER 10 CFR 50.73 AS THEY MAY BE AN INDICATION OF A POTENTIAL GENERIC PROBLEM. IMMEDIATE CORRECTIVE ACTION WAS TO PERFORM PREVENTIVE MAINTENANCE (PM) ON THE CIRCUIT BREAKERS. THE TRIP SHAFT BEARINGS WERE CLEANED, LUBRICATED AND MEASURED TO HAVE A TORQUE OF 20 INCH-OUNCES (VS. AS FOUND VALUE OF 80 INCH-OUNCES). THE STATIC TIME DELAY UNITS WERE READJUSTED TO WITHIN SPECS. THE CIRCUIT BREAKERS WERE TESTED FOR OPERABILITY 3 TIMES AND WERE RETURNED TO SERVICE.

[157] OYSTER CREEK DOCKET 50-219 LER 84-005
ISOLATION CONDENSER PIPING LEAK NEAR WELD JOINT.
EVENT DATE: 032284 REPORT DATE: 050184 NSSS: GE TYPE: BWR

(NSIC 189646) THE SHELL SIDE OF BOTH ISOLATION CONDENSERS (NE01-A, NE01-B) WAS HYDROLAYZED AND COATED TO PROTECT AGAINST CORROSION. AS PART OF POST-MAINTENANCE TESTING, THE TUBE SIDE OF THE CONDENSERS WAS HYDROSTATICALLY TESTED TO VERIFY TUBE INTEGRITY. THE TEST WAS PERFORMED BY ISOLATING THE STEAM AND CONDENSATE PIPING ASSOCIATED WITH EACH CONDENSER, THEN PRESSURIZING THAT PORTION OF PIPING, AND CHECKING FOR LEAKS. ISOLATION CONDENSER NE01-B WAS TESTED FIRST, WITH NO APPARENT LEAKAGE. HOWEVER, THE HYDRO TEST ON ISOLATION CONDENSER NE01-A WAS NEVER COMPLETED. ON MAR 22, 1984 DURING THE HYDRO TEST BEING PERFORMED ON ISOLATION CONDENSER NE01-A, A LEAK WAS NOTICED NEAR AN INSULATED ELBOW ON THE CONDENSATE PIPING, DOWNSTREAM OF THE CONDENSER. THE INSULATION WAS REMOVED TO REVEAL A CRACK NEAR WELD NE-2-12. THE WELD AREA WAS THEN EXAMINED ULTRASONICALLY, WHICH PINPOINTED THE EXISTENCE OF A THROUGH-WALL CRACK APPROXIMATELY 5 INCHES LONG. THE INDICATIONS ARE THAT THE FAILURE MAY BE INTERGRANULAR STRESS CORROSION CRACKING. PLANS HAVE BEEN DEVELOPED TO INSPECT MORE OF THE WELDS IN THIS SYSTEM, INCLUDING THOSE ASSOCIATED WITH THE SECOND ISOLATION CONDENSER NE01-B.

[158] OYSTER CREEK DOCKET 50-219 LER 84-007
SGTS TRAIN NOT TESTED WITHIN REQUIRED TIME.
EVENT DATE: 040284 REPORT DATE: 051884 NSSS: GE TYPE: BWR

(NSIC 190243) AT APPROX. 1530 HRS ON APR 2, 1984, DG NO. 1 WAS DECLARED INOPERABLE AS A RESULT OF A FAILURE TO FAST START DURING THAT SEGMENT OF THE MONTHLY SURVEILLANCE. SINCE DG 1 IS THE EMERGENCY POWER SUPPLY FOR STANDBY GAS TREATMENT SYSTEM NO. 1 (SGTS 1), SGTS 1 MUST ALSO BE CONSIDERED INOPERABLE PURSUANT TO DEFINITION NO. 1.1 'OPERABLE-OPERABILITY' IN TECH SPECS. AT THIS TIME, TORUS PAINTING WORK WAS STOPPED AND 10 HR WAITING PERIOD BEGAN PRIOR TO TESTING SGTS II. TECH SPEC 3.5.B.3.B.1 REQUIRES A REDUNDANT SGTS TRAIN TO BE DEMONSTRATED OPERABLE WITHIN 2 HRS.

[159] OYSTER CREEK DOCKET 50-219 LER 84-004
SECONDARY CONTAINMENT INTEGRITY VIOLATED.
EVENT DATE: 042184 REPORT DATE: 052184 NSSS: GE TYPE: BWR

(NSIC 190242) WHILE PASSING THROUGH A 23'6" ELEVATION AIRLOCK OF THE REACTOR BLDG, A CONTRACTOR FOUND THAT BOTH THE INNER AND OUTER DOORS OF THE AIRLOCK WERE OPEN AT THE SAME TIME. THIS RESULTED IN A VIOLATION OF THE TECH SPECS, WHICH REQUIRE THAT AT LEAST ONE AIRLOCK DOOR BE CLOSED AT ALL TIMES TO MAINTAIN SECONDARY CONTAINMENT INTEGRITY. THE DOORS WERE CLOSED IMMEDIATELY AFTER THEY WERE FOUND OPEN TO RESTORE SECONDARY CONTAINMENT INTEGRITY. THE AIRLOCK DOORS

HAD BEEN VERIFIED SHUT EARLIER THAT DAY BY THE REACTOR BLDG OPERATOR AS PART OF THE REACTOR BLDG TOUR REQUIREMENTS.

[160] PALISADES DOCKET 50-255 LER 84-004
SAFETY INJECTION ACTUATION.
EVENT DATE: 040884 REPORT DATE: 050884 NSSS: CE TYPE: PWR

(NSIC 189701) ON APRIL 8, 1984, WHILE SHUT DOWN FOR REFUELING, ELECTRICAL CHECKOUT ACTIVITIES ON PREFERRED AC BUS (Y-20) (EF) RESULTED IN TWO (2) SPURIOUS RIGHT CHANNEL SAFETY INJECTION SIGNAL (SIS) ACTUATIONS. THE FIRST SIS ACTUATION OCCURRED AT 1702, AND WAS RESET AT 1704. THE SECOND ACTUATION OCCURRED AT 1710, AND WAS RESET AT 1715. INVESTIGATION INDICATES THAT EACH INCIDENT RESULTED FROM VOLTAGE SPIKES CAUSED BY A SHORT CIRCUIT IN A PIECE OF TEST EQUIPMENT (VOLTAGE CHECKING LIGHT) WHICH WAS BEING USED ON Y-20. THE VOLTAGE SPIKE CAUSED AN SIS BLOCK RELAY TO DROP OUT, ALLOWING A PREVIOUSLY PRESENT PCS LOW PRESSURE SIGNAL TO INITIATE A RIGHT CHANNEL SIS. PERSONNEL WHO WERE PERFORMING THE CHECKOUT WERE, AT THE TIME, UNAWARE THAT THEY HAD CAUSED THE FIRST SIS ACTUATION. CHECKOUT ACTIVITY CONTINUED ON Y-20 UNTIL THE SECOND OCCURRENCE, AT WHICH TIME SEVERAL FUSES (FU;EF) IN Y-20 BLEW. A REVIEW OF THE Y-20 CIRCUIT DESIGN REVEALED THAT CIRCUIT PROTECTION FEATURES IN Y-20 (FUSES (FU;EF), RELAYS (RLY: EF), BREAKER (BKR;EF) SHOULD HAVE FUNCTIONED TO PREVENT A VOLTAGE SPIKE FROM CAUSING AN SIS ACTUATION. CIRCUIT PROTECTION FEATURES WILL BE EVALUATED TO DETERMINE IF THEY ARE APPROPRIATE FOR THEIR APPLICATION IN Y-20.

[161] PEACH BOTTOM 2 DOCKET 50-277 LER 84-003 REV 1
UPDATE ON REACTOR VESSEL HEATUP RATE EXCEEDED 100 DEGREES F PER HOUR.
EVENT DATE: 013184 REPORT DATE: 050384 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CO.

(NSIC 190105) TECH SPEC 3.6.A.1 STATES THAT THE AVERAGE RATE OF REACTOR COOLANT TEMPERATURE CHANGE DURING NORMAL HEATUP OR COOLDOWN SHALL NOT EXCEED 100 F INCREASE (OR DECREASE) IN ANY 1 HR PERIOD. DURING STARTUP ON UNIT 2, THE REACTOR OPERATOR NOTED THAT THE HEATUP RATE WAS EXCEEDING THE TECH SPEC LIMIT OF 100 F IN A 1 HR PERIOD PER SURVEILLANCE TEST 9.12 (REACTOR VESSEL TEMPERATURES). IN RESPONDING, THE OPERATOR FAILED TO TAKE ADEQUATE CORRECTIVE ACTION RAPIDLY ENOUGH AND THE REACTOR COOLANT TEMPERATURE INCREASED BY 110 DEGREES F WITHIN A 1 HR PERIOD. GE HAS EVALUATED THE EXCESS HEATUP RATE AND CONCLUDED THAT IT HAD A MINIMAL EFFECT ON THE REACTOR PRESSURE VESSEL.

[162] PEACH BOTTOM 2 DOCKET 50-277 LER 84-002
AUTOMATIC INITIATION OF STANDBY GAS TREATMENT SYSTEM.
EVENT DATE: 032184 REPORT DATE: 041984 NSSS: GE TYPE: BWR
VENDOR: GENERAL ELECTRIC CO.

(NSIC 189656) ON MARCH 21, 1984, WITH UNIT 2 OPERATING AT 95% POWER, A PARTIAL ACTUATION OF THE PRIMARY CONTAINMENT ISOLATION SYSTEM (PCIS) OCCURRED AT 1:30 A.M. THE PARTIAL ACTIVATION RESULTED IN A MAIN STEAM TUNNEL VENTILATION TRIP AND AN AUTOMATIC START OF THE STANDBY GAS TREATMENT SYSTEM (SBGTS). THE EVENT WAS CAUSED BY A BURNED-OUT COIL IN RELAY 16A-K24 (GENERAL ELECTRIC COMPANY TYPE CR120A) WITHIN THE PCIS LOGIC. THE RELAY WAS REPLACED WITH THE 16A-K24A RELAY, AN AUXILIARY RELAY TO THE 16A-K24. THE 16A-K24A RELAY WAS REPLACED WITH A NEW RELAY, AND THE PCIS ISOLATION WAS RESET.

[163] PEACH BOTTOM 2 DOCKET 50-277 LER 84-006
UNMONITORED LIQUID RELEASE TO RIVER.
EVENT DATE: 032884 REPORT DATE: 042784 NSSS: GE TYPE: BWR
VENDOR: PERFEX, INC.

(NSIC 189657) WHILE AT POWER, A ROUTINE SAMPLE OF WATER TAKEN FROM THE HIGH PRESSURE SERVICE WATER (HPSW) PIPING WAS DISCOVERED TO BE CONTAMINATED. INVESTIGATION DETERMINED THAT THE ORIGIN OF CONTAMINATION INTO THE HPSW SYSTEM WAS THE PEACH BOTTOM UNIT 2 2B RESIDUAL HEAT REMOVAL (RHR) HEAT EXCHANGER. THE 2B RHR HEAT EXCHANGER WAS ISOLATED BY CLOSING VALVES IN THE HIGH PRESSURE SERVICE WATER SYSTEM ON MARCH 26, 1984. BASED ON A LEAK RATE TEST OF THE 2B RHR HEAT EXCHANGER, THE ESTIMATED RATE OF ACTIVITY RELEASED PER DAY PRIOR TO ISOLATION OF SYSTEM WAS CALCULATED AS 65 MICROCURIES PER DAY. INVESTIGATION DETERMINED THAT THE 2B RHR HEAT EXCHANGER LEAKED 65 MICROCURIES PER DAY INTO THE DISCHARGE POND VIA THE HIGH PRESSURE SERVICE WATER PIPING SYSTEM. THE TOTAL UNMONITORED RELEASE INTO THE DISCHARGE POND IS ESTIMATED TO BE APPROXIMATELY 1170 MICROCURIES TO 2150 MICROCURIES. AN EXAMINATION OF THE HEAT EXCHANGER REVEALED THAT THE LEAK WAS IN THE BELLOWS PORTION OF THE HEAT EXCHANGER. THE 2B RHR HEAT EXCHANGER WAS REPAIRED, LEAK TESTED, AND RETURNED TO SERVICE APRIL 26, 1984.

[164] PEACH BOTTOM 3 DOCKET 50-278 LER 83-018 REV 1
 UPDATE ON CONTROL ROD SCRAM INSERTION TIME EXCEEDED.
 EVENT DATE: 111783 REPORT DATE: 021084 NSSS: GE TYPE: BWR
 VENDOR: ASCO VALVES

(NSIC 189865) A POST-SCRAM INVESTIGATION OF SCRAM INSERTION TIMES IDENTIFIED THAT CONTROL RODS 34-35 AND 34-27 EXCEEDED THE ALLOWABLE LIMIT OF 7.00 SECONDS. REACTOR SHUTDOWN WAS IN PROGRESS AND NO ADDITIONAL CONTROL ROD PROBLEMS WERE IDENTIFIED. THE RATE OF REACTOR SHUTDOWN WAS NOT NOTICEABLY AFFECTED BY THE EXCESSIVE SCRAM TIME. THESE CONTROL RODS DID SCRAM BECAUSE OF THE PROPER OPERATION OF THE BACKUP SCRAM SOLENOID VALVES. TECH SPEC 3.3.C.3 IS APPLICABLE. CAUSE WAS FAILURE OF A SCRAM SOLENOID VALVE (ASCO HVA-405) IN BOTH HYDRAULIC CONTROL UNITS (HCUS). BOTH SOLENOIDS IN BOTH HCUS WERE REPLACED. GE EXAMINATION HAS DETERMINED THE CAUSE OF FAILURE AS FOREIGN MATERIAL ASSOCIATED WITH MAINTENANCE ACTIVITIES (LOCTITE 242). DELAY TO DISCOVER SLOW TIME OF CR 34-27 WAS DUE TO MISINTERPRETATION OF DATA.

[165] PEACH BOTTOM 3 DOCKET 50-278 LER 83-021
 MONITORING SYSTEM LOGIC BOARD FAIL
 EVENT DATE: 120383 REPORT DATE: 1. 983 NSSS: GE TYPE: BWR

(NSIC 190232) DURING NORMAL OPERATION, THE MOISTURE MONITORING SYSTEM INDICATED A MOISTURE ALARM AND A TROUBLE ALARM AT WELD 2-AHH-2 ON THE 12 INCH 'A' RECIRC PIPING LOOP. SHIFT SUPERVISION IMMEDIATELY INITIATED AN HOURLY MONITORING OF THE DRYWELL SUMP PUMP OUT RATES. INVESTIGATION FOUND NO EVIDENCE OF LEAKAGE AND DISCOVERED A FAILURE WITHIN THE LOGIC BOARD OF THE MONITORING SYSTEM. THE DEFECTIVE LOGIC BOARD WAS REPLACED BY THE VENDOR AND THE MONITORING SYSTEM WAS RETURNED TO SERVICE DEC 5, 1983. THE CAUSE OF THE FAILURE WAS LOGIC BOARD MISINTERPRETATION OF SENSOR OUTPUT. A NEW LOGIC BOARD WAS INSTALLED BY THE VENDOR ON DEC 5, 1983. THE NEW LOGIC BOARD WAS ADAPTED TO PREVENT SIMILAR OCCURRENCES ON DEC 14, 1983. THE DEFECTIVE LOGIC BOARD WAS REPAIRED AND REISSUED BY VENDOR TO PECO AS A SPARE ON DEC 14, 1983.

[166] PEACH BOTTOM 3 DOCKET 50-278 LER 84-001 REV 2
 UPDATE ON HPCI TURBINE EXHAUST LINE INNER RUPTURE DISC FAILS.
 EVENT DATE: 010684 REPORT DATE: 060184 NSSS: GE TYPE: BWR
 VENDOR: CONTINENTAL BOILER

(NSIC 190106) WHILE AT POWER DURING SURVEILLANCE TESTING, THE HPCI TURBINE EXHAUST RUPTURE DIAPHRAGM ALARM ANNUNCIATED FOLLOWING STARTUP OF THE UNIT 3 HPCI TURBINE. INVESTIGATION REVEALED THAT THE INNER RUPTURE DISC, PSD3-23-6, HAD RUPTURED. SINCE THE OUTER DISC HAD NOT RUPTURED, THE HPCI TURBINE REMAINED OPERABLE UNTIL IT WAS INTENTIONALLY REMOVED FROM SERVICE TO REPLACE THE INNER

RUPTURE DISC. PRIOR TO REMOVING THE TURBINE FROM SERVICE, THE SYSTEMS REQUIRED BY TECH SPEC 4.5.C.2 (RCIC, ADS, LPCI, AND CORE SPRAY) WERE VERIFIED TO BE OPERABLE. CAUSE OF THE EVENT IS UNDER INVESTIGATION. THE RUPTURE DISC WAS REPLACED AND HPCI WAS DECLARED OPERABLE FOLLOWING SURVEILLANCE TEST VERIFICATION.

[167] PEACH BOTTOM 3 DOCKET 50-278 LER 84-002 REV 1
 UPDATE ON REACTOR VESSEL HEATUP RATE EXCEEDED 100 DEGREES F PER HOUR.
 EVENT DATE: 012484 REPORT DATE: 050384 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 190107) TECH SPEC 3.6.A.1 STATES THAT AVERAGE RATE OF REACTOR COOLANT TEMPERATURE CHANGE DURING NORMAL HEATUP OR COOLDOWN SHALL NOT EXCEED 100 DEGREES F INCREASE (OR DECREASE) IN ANY 1 HR PERIOD. DURING A UNIT STARTUP, A CALCULATIONAL ERROR RESULTED IN A REACTOR HEATUP RATE OF 111 DEGREES F PER HR. UPON DISCOVERY OF THE ERROR, THE HEATUP RATE WAS REDUCED IMMEDIATELY BY THE REACTOR OPERATOR TO BRING THE UNIT TO LESS THAN ITS TECH SPEC LIMIT OF 100 DEGREES F PER HR. GE HAS EVALUATED THE EXCESS VESSEL HEATUP RATE AND CONCLUDED THAT IT HAD A MINIMAL EFFECT ON THE REACTOR PRESSURE VESSEL.

[168] PEACH BOTTOM 3 DOCKET 50-278 LER 84-003
 CORE SPRAY LOGIC LOST DUE TO SHORTED LIGHT SOCKET.
 EVENT DATE: 032984 REPORT DATE: 042784 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 189658) ON MARCH 29, 1984, THE B CORE SPRAY LOGIC FUSE 14A-F2B ON UNIT 3 WAS BLOWN DURING INSTRUMENT SURVEILLANCE TESTING DUE TO A SHORTED SOCKET ON INDICATING LIGHT 14A-DS36B. THIS DISABLED THE 3B CORE SPRAY LOGIC AND PARTS OF THE REDUNDANT INITIATING LOGIC CIRCUITS IN TWO OF THE EMERGENCY DIESELS, RHR, HPCI, AND THE 3A CORE SPRAY SYSTEMS. THE SHORTED SOCKET WAS REMOVED FROM THE LOGIC CIRCUIT AND THE FUSE WAS REPLACED. THE ELECTRICAL ENGINEERING DIVISION HAS BEEN REQUESTED TO REVIEW THE ECCS LOGIC DESIGN AND INITIATE MODIFICATIONS, IF APPROPRIATE.

[169] PILGRIM 1 DOCKET 50-293 LER 81-015 REV 1
 UPDATE ON LOW FLOW OF CARDOX SYSTEM.
 EVENT DATE: 041781 REPORT DATE: 031984 NSSS: GE TYPE: BWR
 VENDOR: CHEMETRON CORP.

(NSIC 189847) ON 4/17/81 AT 1130 HRS, ROUTINE SURVEILLANCE TESTING WAS BEING CONDUCTED ON THE CARDOX SYSTEM HOSE REELS AND NOZZLES. AFTER SUCCESSFULLY TESTING THE 51 FT. LEVEL HOSE STATION, A TEST WAS CONDUCTED ON THE 23 FT. LEVEL HOSE REEL AND NOZZLE. THE NOZZLE FAILED TO DELIVER AN ADEQUATE STREAM. A FIRE WATCH WAS IMMEDIATELY ESTABLISHED AS REQUIRED BY TECH SPECS. APPROX. 2 HRS LATER, THE SYSTEM WAS SATISFACTORILY RETESTED AND RETURNED TO SERVICE. CAUSE OF THIS EVENT WAS DETERMINED TO BE OPERATOR ERROR. ENGINEERING EVALUATION HAS DETERMINED THAT THE NOZZLES WILL NOT PERMIT CO2 DISCHARGE UNLESS THE TRIGGER ON THE HOSE STATION ACTUATION VALVE IS FULLY DEPRESSED. FIRE BRIGADE TRAINING WAS REVISED ACCORDINGLY AND FIRE BRIGADE MEMBERS WERE INSTRUCTED ON THE CORRECT METHOD OF ACTIVATING THE CARDOX SYSTEM.

[170] PILGRIM 1 DOCKET 50-293 LER 84-001
 TRANSFER OF RPS POWER TWICE CAUSES SCRAM.
 EVENT DATE: 031684 REPORT DATE: 041284 NSSS: GE TYPE: BWR

(NSIC 189708) ON 3/16/84 AND AGAIN ON 3/27/84, WHILE SHUT DOWN FOR REFUELING, A FULL SCRAM SIGNAL WAS GENERATED. NO FUPL WAS IN THE VESSEL, AND ALL CONTROL RODS WERE VALVED OUT AT THE TIME OF THE EVENTS. OPERATIONS INITIATED AN INVESTIGATION

WHICH CONCLUDED THAT THE SCRAMS OCCURRED WHEN THE POWER SUPPLY FOR "A" RPS WAS TEMPORARILY INTERRUPTED. CAUSE OF THE UNPLANNED SCRAM WAS DUE TO OPERATOR ERROR COMBINED WITH AN OFF-NORMAL CONFIGURATION OF THE RPS. DURING BOTH SCRAMS, THE OPERATOR FAILED TO REALIZE THAT A FULL SCRAM WILL OCCUR WHEN THE SCRAM DISCHARGE HIGH LEVEL SIGNAL IS BYPASSED AND A LOSS OF POWER TO EITHER RPS OCCURS. THERE WERE NO SYSTEM OR COMPONENT FAILURES DURING THIS EVENT. TO PRECLUDE RECURRENCE, OPERATIONS PERSONNEL WERE COUNSELLED ON THE CAUSE OF THE EVENT. IN ADDITION, A COPY OF THIS REPORT WILL BE FORWARDED TO ALL LICENSED OPERATORS AND THE TRAINING DEPARTMENT.

[171] PILGRIM 1 DOCKET 50-293 LER 84-002
 HFA REL. & PROBLEM.
 EVENT DATE: 031884 REPORT DATE: 041884 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 189709) ON 3/18/83, DURING A REFUELING OUTAGE, AN HFA RELAY IN THE REACTOR PROTECTION SYSTEM WAS FOUND TO BE HOT AND SMOKING. THE RELAY IS A GE 51 SERIES AC TYPE AND IS NORMALLY ENERGIZED. THERE WAS NO FUEL IN THE REACTOR VESSEL AT THE TIME OF THE EVENT. THE RELAY WAS IMMEDIATELY DEENERGIZED AND REPLACED WITH A GE "CENTURY" SERIES RELAY. THE RELAY, ALTHOUGH SMOKING, REMAINED OPERABLE. CAUSE IS ATTRIBUTED TO PREVIOUSLY IDENTIFIED GENERIC HFA RELAY PROBLEMS. LONG-TERM CORRECTIVE ACTION IS BEING DEVELOPED AND WILL BE INCLUDED IN THE RESPONSE TO IE BULLETIN NO. 84-02 ENTITLED "FAILURES OF GENERAL ELECTRIC TYPE HFA RELAYS IN USE IN CLASS IE SAFETY SYSTEMS."

[172] PILGRIM 1 DOCKET 50-293 LER 84-003
 DIESEL FIRE PUMP SURVEILLANCE MISSED.
 EVENT DATE: 031984 REPORT DATE: 041984 NSSS: GE TYPE: BWR

(NSIC 189710) ON 3/19/84, DURING A REFUELING OUTAGE, IT WAS DISCOVERED DURING A REVIEW OF EXCEPTION REPORTS, THAT THE ONCE/CYCLE DIESEL GENERATOR FIRE PUMP SURVEILLANCE TEST HAD NOT BEEN PERFORMED WITHIN THE INTERVAL REQUIRED BY PILGRIM NUCLEAR POWER STATION (PNPS) TECH SPEC. THE DIESEL FIRE PUMP WAS IMMEDIATELY DECLARED INOPERABLE, AND THE SURVEILLANCE TEST WAS COMPLETED ON 3/27/84. REDUNDANT FIRE PROTECTION EQUIPMENT WAS OPERABLE. CAUSE OF THE MISSED SURVEILLANCE WAS DUE TO INCORRECT INFORMATION IN THE SURVEILLANCE TRACKING PROGRAM DATA BASE. THE DATA BASE WAS REVISED AND REVIEWED TO ENSURE THAT SURVEILLANCE INTERVALS WERE CORRECT. TWO OTHER INTERVAL DISCREPANCIES WERE FOUND AND CORRECTED. ROOT CAUSE WAS DETERMINED TO BE PERSONNEL ERROR WHICH OCCURRED WHEN SURVEILLANCE INTERVAL WAS CHANGED IN VIOLATION OF A STATION PROCEDURE.

[173] POINT BEACH 2 DOCKET 50-301 LER 84-002
 CONTROL ROD OUT OF POSITION.
 EVENT DATE: 042484 REPORT DATE: 052484 NSSS: WE TYPE: PWR

(NSIC 189894) ON 4/24/84, THE NRC RESIDENT INSPECTOR NOTIFIED THE LICENSEE THAT HE CONSIDERED OPERATION WITH THE CONTROL RODS AT 225 STEPS A VIOLATION OF TECH SPECS. TECH SPEC 15.3.10.A STATES THAT THE SHUTDOWN BANK SHALL BE FULLY WITHDRAWN AND THE CONTROL BANKS INSERTED NO FURTHER THAN AS INDICATED IN FIGURE 15.3.10-1. FIGURE 15.3.10-1 CALLS FOR CONTROL BANKS "B&C" TO BE AT 228 STEPS FOR 100% POWER. THIS EVENT IS CONSIDERED REPORTABLE PER TECH SPEC 15.6.9.2.B.2. THE CONTROL RODS WERE INSPECTED DURING THE LAST REFUELING OUTAGE AND FOUND TO BE WEARING AT THE GUIDE CARD LOCATIONS. TO PREVENT FURTHER WALL LOSS IN THE SAME AREA, THE FULLY WITHDRAWN POSITION WAS CHANGED FROM 228 TO 225 STEPS. CONTROL BANKS "A, B, & C" WERE RETURNED TO 228 STEPS UPON BEING NOTIFIED AND A TECH SPEC CHANGE REQUEST FILED TO CHANGE FIGURE 15.3.10-1.

[174] PRAIRIE ISLAND 1 DOCKET 50-282 LER 83-023
 SAFETY INJECTION PUMP DAMAGED.
 EVENT DATE: 091583 REPORT DATE: 101483 NSSS: WE TYPE: PWR
 VENDOR: BINGHAM-WILLAMETTE CO.

(NSIC 189868) DURING SURVEILLANCE TEST, NO. 11 SAFETY INJECTION PUMP WAS DAMAGED. TECH SPEC 3.3.A.2 APPLIES. REDUNDANT EQUIPMENT WAS OPERABLE. PERSONNEL ERROR; SUCTION VALVE HAD BEEN MISTAKENLY LEFT CLOSED. THE PUMP WAS REPAIRED BUT SINCE THAT COULDN'T BE DONE IN 24 HRS, THE UNIT WAS TAKEN TO HOT SHUTDOWN FOR A DAY. PROCEDURES WILL BE CHANGED. FEASIBILITY OF ADDING PUMP SUCTION PRESSURE TRIPS IS BEING INVESTIGATED.

[175] PRAIRIE ISLAND 1 DOCKET 50-282 LER 83-028
 SURVEILLANCE TEST PERFORMED LATE.
 EVENT DATE: 103183 REPORT DATE: 113083 NSSS: WE TYPE: PWR

(NSIC 189869) DURING A REVIEW OF THE SURVEILLANCE PROGRAM IT WAS FOUND THAT ONE MONTHLY SURVEILLANCE TEST HAD BEEN DONE THREE TIMES IN THREE MONTHS BUT THAT THE INTERVAL BETWEEN TWO OF THE TESTS WAS MORE THAN ONE MONTH PLUS OR MINUS 25% AS LIMITED BY TECH SPECS 4.0. RECENT SIMILAR EVENT WAS RO 83-10. IN AUGUST THE TEST WAS DONE EARLY TO LESSEN THE WORKLOAD AT UNIT 2 REFUELING, BUT THE SCHEDULE WAS NOT THEN UPDATED. THE EVENT WAS DISCUSSED WITH THE GROUP SCHEDULER. ALL THE TESTS WERE ACCEPTABLE, IF NOT TIMELY.

[176] PRAIRIE ISLAND 1 DOCKET 50-282 LER 83-030 REV 1
 UPDATE ON DG SERVICE WATER PUMP INOPERABLE.
 EVENT DATE: 110483 REPORT DATE: 043084 NSSS: WE TYPE: PWR
 VENDOR: DYNALCO CORP.

(NSIC 189694) DURING POWER OPERATION, A CONTROL ROOM ANNUNCIATOR ON NO. 22 DIESEL COOLING WATER PUMP WAS ACTUATED AS A RESULT OF A FALSE SIGNAL IN A CONTROL CABLE WHICH SHOWED THE ENGINE WAS RUNNING WHEN IN FACT IT WAS NOT. THE ENGINE RUNNING SIGNAL BLOCKS ALL START SIGNALS, SO THE PUMP WAS INOPERABLE FOR A SHORT TIME. TECH SPEC 3.3.D APPLIES. REDUNDANT EQUIPMENT WAS OPERABLE. INADEQUATE INSTALLATION INSTRUCTIONS FOR THE DYNALCO CORP. SERIES DS900 DIGITAL SPEED INDICATOR. PHONE CONTACT WITH THE VENDOR PROVIDED THE INFORMATION TO MAKE A TROUBLE-FREE INSTALLATION AND THIS WAS DONE ON BOTH DIESEL COOLING WATER PUMPS.

[177] PRAIRIE ISLAND 2 DOCKET 50-306 LER 83-024
 STEAM FLOW TRANSMITTER FAILS TWICE.
 EVENT DATE: 100483 REPORT DATE: 110383 NSSS: WE TYPE: PWR
 VENDOR: ROSEMOUNT, INC.

(NSIC 190112) DURING POWER OPERATION, ONE STEAM FLOW TRANSMITTER FAILED LOW. DURING TROUBLESHOOTING, THE TRANSMITTER RETURNED TO NORMAL OUTPUT, SO BISTABLES WERE RETURNED TO NORMAL. FOUR DAYS LATER THE TRANSMITTER AGAIN FAILED LOW AND DURING TROUBLESHOOTING ITS OUTPUT AGAIN RETURNED TO NEAR NORMAL. THIS TIME BISTABLES WERE LEFT IN TRIP UNTIL A REPLACEMENT TRANSMITTER COULD BE INSTALLED. TECH SPEC TABLES 3.5-2 AND 3.5-4 APPLY. THIS TYPE OF FAILURE IS NOT REPETITIVE, BUT RECENT FAILURES OF THESE DEVICES ARE DESCRIBED IN RO 82-25 AND 83-22. THE CAUSE IS NOT KNOWN AT THIS TIME; THE VENDOR IS ANALYZING THE FAILED TRANSMITTER. A REPLACEMENT ROSEMOUNT MODEL 1153HD6 DIFFERENTIAL PRESSURE TRANSMITTER WAS INSTALLED.

[178] PRAIRIE ISLAND 2 DOCKET 50-306 LER 83-025
 CONTAINMENT AIR SAMPLE INLET ISOLATION VALVE FAILS TO FULLY CLOSE.
 EVENT DATE: 101183 REPORT DATE: 111083 NSSS: WE TYPE: PWR
 VENDOR: CONTROMATICS CORP.

(NSIC 189872) DURING SURVEILLANCE TEST, CV-31642, CONTAINMENT AIR SAMPLE INLET ISOLATION VALVE, DID NOT FULLY CLOSE. RECENT SIMILAR EVENT WAS RO 83-17. TECH SPEC 3.6.A.6 APPLIES. REDUNDANT VALVE WAS OPERABLE. LOOSE SET SCREW IN LIMIT SWITCH ACTUATOR ARM ALLOWED ACTUATOR ARM TO ROTATE AND IMPROPERLY CONTACT THE LIMIT SWITCH, PREVENTING FULL CLOSURE OF THE CONTROMATICS 1" F.P. SW VALVE. SET SCREW WAS TIGHTENED AND VALVE TESTED SATISFACTORILY. SIMILAR INSTALLATIONS WERE INSPECTED.

[179] QUAD CITIES 1 DOCKET 50-254 LER 84-005
 LINEAR INDICATION ON REACTOR RECIRCULATION SYSTEM WELDS.
 EVENT DATE: 041484 REPORT DATE: 050784 NSSS: GE TYPE: BWR
 VENDOR: DRAVO, INC.

(NSIC 189652) ON MARCH 6, 1984, QUAD CITIES UNIT ONE WAS SHUT DOWN FOR REFUELING. INDUCTION HEAT STRESS IMPROVEMENT (IHSI) PROCEDURES WERE PERFORMED ON THE REACTOR RECIRCULATION SYSTEM WELDS AS PART OF THE INSERVICE INSPECTION PROGRAM FOR LARGE BORE STAINLESS STEEL PIPING. FOLLOWING THE IHSI, VISUAL AND ULTRASONIC INSPECTIONS REVEALED SEVERAL WELD AREAS WITH WATER SEEPING FROM SMALL CRACKS. THIS REPORT IS AN INITIAL SUMMATION OF THOSE FINDINGS AS OF THIS REPORTING DATE, AND DOES NOT PRESENT THE COMPLETE RESULTS OF THE ONGOING INSERVICE INSPECTION PROGRAM. A SUPPLEMENTAL REPORT WILL BE SUBMITTED WHEN ALL INSPECTIONS AND REPAIRS HAVE BEEN COMPLETED.

[180] QUAD CITIES 1 DOCKET 50-254 LER 84-006
 SECONDARY CONTAINMENT POTENTIAL PROBLEM.
 EVENT DATE: 050184 REPORT DATE: 051284 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: QUAD CITIES 2 (BWR)

(NSIC 189700) PERFORMANCE OF MAINTENANCE ON TURBINE ISOLATION VALVES (ISV) AND MAIN STEAM ISOLATION VALVES (MSIV), REQUIRING VALVE DISASSEMBLY, RESULTED IN A COMMUNICATION VIA THE MAIN STEAM PIPING BETWEEN THE REACTOR BUILDING AND TURBINE BUILDING. ALTHOUGH BOTH UNITS WERE IN COLD SHUTDOWN AND SECONDARY CONTAINMENT WAS NOT REQUIRED AT THE TIME, A REVIEW OF THIS EVENT, IN LIGHT OF SECONDARY CONTAINMENT VALVE DISASSEMBLY DURING SINGLE UNIT OUTAGES, REVEALED A POTENTIAL FOR SECONDARY CONTAINMENT PROBLEMS. SINCE STATION PROCEDURES DID NOT ADDRESS SECONDARY CONTAINMENT CONCERNS WITH VALVE MAINTENANCE PROCEDURES, A PROCEDURE ASSURING SECONDARY CONTAINMENT DURING VALVE DISASSEMBLY AND PIPE REMOVAL WAS IMPLEMENTED.

[181] QUAD CITIES 2 DOCKET 50-265 LER 83-015 REV 1
 UPDATE ON VALVE AND PENETRATION LEAK RATE EXCEEDED.
 EVENT DATE: 091283 REPORT DATE: 031984 NSSS: GE TYPE: BWR

(NSIC 190233) ON SEPT 12, 1983, WHILE PERFORMING REFUELING OUTAGE LOCAL LEAK RATE TESTING, THE TOTAL MEASURED COMBINED LEAKAGE RATE FOR ALL PENETRATIONS AND VALVES, EXCEPT MAIN STEAM ISOLATION VALVES, WAS FOUND TO EXCEED 293.75 SCFH (0.60 LA). REPAIRS WERE PERFORMED DURING THE REFUELING OUTAGE TO GIVE A TOTAL MEASURED LEAK RATE (LESS MSIV'S) OF 238.15 SCFH (0.486 WT %/DAY). SEE CAUSES AND CORRECTIVE ACTIONS FOR VALVES AND PENETRATIONS WITH EXCESSIVE LEAKAGE IN THE REPORT. ALSO, REFERENCE APPENDIX C OF THE REPORT FOR SPECIFIC REPAIRS REQUIRED BY THE REFUELING OUTAGE LOCAL LEAK RATE TESTING PROGRAM.

[182] QUAD CITIES 2 DOCKET 50-265 LER 83-021 REV 5
 UPDATE ON RECIRCULATION SYSTEM PIPE CRACKING.
 EVENT DATE: 102883 REPORT DATE: 022884 NSSS: GE TYPE: BWR
 VENDOR: DRAVO, INC.

(NSIC 189864) DURING THE QUAD-CITIES UNIT 2 REFUEL OUTAGE, ULTRASONIC EXAMINATIONS OF LARGE BORE STAINLESS STEEL PIPE WELDS PERFORMED TO COMPLY WITH THE REQUIREMENTS OF THE NRC IGSCC INSPECTION ORDER IDENTIFIED 11 WELDS AS HAVING CRACK INDICATIONS. ALL OF THE WELDS WERE LOCATED ON THE REACTOR RECIRCULATION SYSTEM PIPING. THE SLOW GROWTH RATE, TYPICAL WITH THIS TYPE OF INDICATION, COMBINED WITH THE REDUCED ALLOWABLE CONTAINMENT LEAKAGE RATE, WOULD HAVE BEEN SUFFICIENT TO READILY IDENTIFY ANY POSSIBLE LEAKAGE AND PRECLUDE A GROSS FAILURE. THE CAUSE OF THIS OCCURRENCE IS POSTULATED AS BEING INTERGRANULAR STRESS CORROSION CRACKING. THE WELD REPAIR PROGRAM INVOLVED EITHER PERFORMING A WELD OVERLAY OR LEAVING THE WELD IN ITS PRESENT CONDITION. INDUCTION HEAT STRESS IMPROVEMENT (IHSI) WAS ALSO EMPLOYED IN ORDER TO ARREST FURTHER CRACK GROWTH. ADDITIONAL INSPECTION TECHNIQUES WERE USED ON SEVERAL WELDS, AND NO CRACK INDICATIONS COULD BE IDENTIFIED USING THESE ADVANCED TECHNIQUES.

[183] RANCHO SECO DOCKET 50-312 LER 84-017
 CORE FLOOD TANK VENT VALVE NOT SECURED.
 EVENT DATE: 042284 REPORT DATE: 052284 NSSS: BW TYPE: PWR

(NSIC 189720) ON APR 22, 1984, WHILE RANCHO SECO NUCLEAR GENERATING STATION WAS IN STARTUP AT 6.6% POWER, AN OPERATOR DISCOVERED THAT THE BREAKER FOR THE ELECTRICALLY OPERATED VENT VALVE HV-26511 ON THE 'A' CORE FLOOD TANK HAD NOT BEEN CLEARED. TECH SPEC 3.3.1.B.5 REQUIRES CORE FLOOD TANK ELECTRICALLY OPERATED VENT VALVES HV-26511 AND HV-26512 BE CLOSED AND BREAKERS TAGGED OPEN EXCEPT DURING NORMAL VENTING OPERATIONS. THE OPERATOR IMMEDIATELY TAGGED THE BREAKER OPEN AND NOTIFIED THE NRC AT 0954. OPERATING PROCEDURES WILL BE REVISED TO INCLUDE SPECIFIC INSTRUCTIONS REQUIRING THE OPERATORS TO ENSURE THAT VENT VALVE BREAKERS ARE TAGGED OPEN PRIOR TO STARTUP. THESE REVS WILL BE IN PLACE BY JUNE 30, 1984.

[184] RANCHO SECO DOCKET 50-312 LER 84-016
 CONTAINMENT ISOLATION VALVE STROKE TIME IN EXCESS OF TECH SPEC LIMIT.
 EVENT DATE: 042584 REPORT DATE: 051184 NSSS: BW TYPE: PWR
 VENDOR: VELAN VALVE CORP.

(NSIC 189665) ON MAY 3, 1984, WHILE THE STAFF OF THE TECHNICAL ASSISTANT TO THE MANAGER OF NUCLEAR OPERATIONS WAS REVIEWING AN OCCURRENCE DESCRIPTION REPORT (AN INTERNAL REPORTING SYSTEM CONTROLLED BY ADMINISTRATIVE PROCEDURE AP.22) FOR PROPER CLOSURE, IT WAS DETERMINED THAT VALVE SPV-24013, REACTOR COOLANT SYSTEM PUMP SEAL RETURN LINE ISOLATION VALVE, HAD EXCEEDED ITS TECH SPEC STROKE TIME LIMIT OF 8 SECONDS MAXIMUM BY 0.12 SECONDS. THE SURVEILLANCE TEST, PERFORMED ON APR 2, 1984 THAT HAD DETERMINED THIS HAD BEEN CLOSED OUT BASED ON THE ISSUANCE OF A NONCONFORMANCE REPORT AND AN OCCURRENCE DESCRIPTION REPORT ON THIS VALVE ON APR 4, 1984. BY TECH SPEC DEFINITION, THE VALVE WAS NOT OPERABLE. SUBSEQUENTLY, THE UNIT WAS BROUGHT TO POWER WITH THE VALVE STILL IN THIS CONDITION ON APR 25, 1984. ON MAY 3 A WORK REQUEST WAS WRITTEN TO CORRECT THIS PROBLEM AND THE VALVE WAS RETESTED ON THAT DATE AND FOUND ACCEPTABLE. THE APPROPRIATE PROCEDURES WILL BE REVISED SO THAT THE LIKELIHOOD OF SUCH EVENTS RECURRING IN THE FUTURE WILL BE MINIMIZED.

[185] ROBINSON 2 DOCKET 50-261 LER 83-031
 TWO CONTAINMENT ISOLATION VALVES FAIL TO CLOSE.
 EVENT DATE: 113083 REPORT DATE: 122983 NSSS: WE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 189863) ON NOV. 30, 1983, WITH THE UNIT IN COLD SHUTDOWN FOR A STEAM GENERATOR INSPECTION OUTAGE, 2 CONTAINMENT ISOLATION VALVES FAILED TO CLOSE ON A PHASE 'A' ISOLATION TEST. FIRE PROTECTION VALVE FP-258 AND WASTE DISPOSAL VALVE WD-1728 EACH HAVE A SECOND VALVE IN SERIES WHICH DID PROPERLY ISOLATE. THIS IS REPORTED PURSUANT TO TECH SPEC 6.9.2. FP-258 DID NOT OPERATE BECAUSE OF A MISALIGNED CONTACT IN A RELAY. WD-1728 DID NOT OPERATE BECAUSE OF A FAULTY SOLENOID. THE RELAY WAS REPAIRED, AND THE SOLENOID WAS REPLACED. THESE EVENTS ARE CONSIDERED NORMAL FAILURES, AND THEREFORE, NO FURTHER ACTION IS NECESSARY.

[186] ROBINSON 2 DOCKET 50-261 LER 84-002
FAILURE TO TEST A FIRE DAMPER.
EVENT DATE: 042784 REPORT DATE: 052584 NSSS: WE TYPE: PWR

(NSIC 189653) THE UNIT WAS SHUT DOWN WITH ALL FUEL IN THE SPENT FUEL PIT DURING A STEAM GENERATOR REPLACEMENT/REFUELING OUTAGE. THREE CURTAINS IN FIRE DAMPER FD-12 PARTIALLY FAILED THEIR OPERATIONAL SURVEILLANCE TEST (OST). IT WAS DETERMINED THAT FD-12 MAY NOT HAVE BEEN TESTED DURING THE LAST REFUELING OUTAGE AS REQUIRED BY TECH SPEC 4.14.5.1.A. IT APPEARS THAT ANOTHER DAMPER WAS TESTED IN PLACE OF FD-12 DURING THE LAST OST. THIS ERROR WAS DUE TO THE DAMPERS NOT BEING PROPERLY IDENTIFIED.

[187] SALEM 2 DOCKET 50-311 LER 84-009
NON-REPRESENTATIVE SAMPLE OF GAS DECAY TANK PRIOR TO RELEASE OF CONTENTS.
EVENT DATE: 083083 REPORT DATE: 051684 NSSS: WE TYPE: PWR

(NSIC 189718) ON APRIL 16, 1984, IT WAS DISCOVERED THAT THE SAMPLE ISOLATION VALVE FROM NO. 23 GAS DECAY TANK WAS INOPERABLE, DUE TO ITS AIR SUPPLY VALVE BEING CLOSED. THE AIR SUPPLY VALVE HAD BEEN CLOSED AND TAGGED ON MARCH 28, 1983. THE TAG HAD BEEN ADDED TO THE "SPECIAL INSTRUCTIONS" SECTION OF THE TAGGING REQUEST, AND WAS OVERLOOKED WHEN THE REQUEST WAS RELEASED. THE CONTENTS OF NO. 23 GAS DECAY TANK WAS RELEASED ON TWO OCCASIONS SINCE THAT TIME. ENVIRONMENTAL TECH SPECS REQUIRE THE TANK CONTENTS TO BE SAMPLED AND ANALYZED PRIOR TO RELEASES TO THE ATMOSPHERE. THE PRE-RELEASE SAMPLES WERE OBTAINED AS REQUIRED; ALTHOUGH, UNKNOWN TO THE CHEMIST, THE REMOTE OPERATED SAMPLE ISOLATION VALVE REMAINED SHUT. CONSEQUENTLY, THE SAMPLES WERE DRAWN ON A DEAD LEG OF PIPING, AND WERE NOT REPRESENTATIVE OF THE TANK CONTENTS. BOTH RELEASES WERE, HOWEVER, MONITORED BY THE RADIATION MONITORS, WHICH VERIFIED THAT BOTH RELEASES WERE WITHIN PRESCRIBED LIMITS. A REVIEW OF THE WASTE GAS SAMPLING SYSTEM WILL BE PERFORMED, FOR POSSIBLE DESIGN CHANGES TO PREVENT RECURRENCE. A REVISED RELEASE REPORT WILL BE SUBMITTED TO THE COMMISSION. AND, THE TAGGING PROCEDURE WILL BE REVISED TO FURTHER CLARIFY RESTRICTIONS ON PLACING BLOCKING POINTS IN THE SPECIAL INSTRUCTIONS OF THE TAGGING REQUEST.

[188] SALEM 2 DOCKET 50-311 LER 84-012
REACTOR TRIP DUE TO STEAM FLOW/FEED FLOW MISMATCH.
EVENT DATE: 042484 REPORT DATE: 052484 NSSS: WE TYPE: PWR
VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190113) ON APR 24, 1984, UNIT STARTUP OPERATIONS WERE IN PROGRESS. UPON LATCHING THE TURBINE, NO. 21 TURBINE STOP VALVE FAILED TO OPEN. PERSONNEL WERE IMMEDIATELY DISPATCHED TO INVESTIGATE. THE STOP VALVE WAS SUBSEQUENTLY OPENED, RESULTING IN AN INCREASE IN TURBINE SPEED, FOLLOWED BY A REACTOR/TURBINE TRIP. THIS WAS CAUSED BY THE SETTING OF A TERMINAL SPEED INTO THE SETTER DISPLAY UNIT, AND PLACING THE TURBINE CONTROL SYSTEM IN THE AUTOMATIC MODE OF OPERATION PRIOR TO HAVING ALL FOUR TURBINE STOP VALVES OPENED. THIS RESULTED IN A TURBINE GOVERNOR VALVE DEMAND SIGNAL, WHICH, UPON OPENING OF THE STOP VALVE, CAUSED A LARGE IN-RUSH OF STEAM TO THE TURBINE. THE REACTOR TRIP OCCURRED AS THE RESULT OF A STEAM FLOW/FEED FLOW MISMATCH, CAUSED BY THE SUDDEN STEAM DEMAND WHEN THE

TURBINE STOP VALVE WAS OPENED, COINCIDENT WITH A 25% LEVEL IN NO. 21 STEAM GENERATOR. THE TURBINE STOP VALVE DID NOT OPEN UPON LATCHING THE TURBINE DUE TO THE INOPERABILITY OF THE BYPASS VALVE PILOT VALVE. THE PILOT VALVE STROKE WAS ADJUSTED, AND THE VALVE WAS SATISFACTORILY TESTED. A CHANGE WAS MADE TO THE TURBINE OPERATING INSTRUCTION TO ENSURE THAT ALL TURBINE STOP VALVES ARE OPEN PRIOR TO INCREASING THE SPEED OF THE TURBINE. THE REACTOR PROTECTION SYSTEM FUNCTIONED AS DESIGNED.

[189] SALEM 2 DOCKET 50-311 LER 84-011
 STEAM GENERATOR FEEDWATER FLOW CHANNELS INOPERABLE.
 EVENT DATE: 042884 REPORT DATE: 052584 NSSS: WE TYPE: PWR
 VENDOR: BAILEY INSTRUMENT CO., INC.

(NSIC 189719) ON APRIL 28, 1984, WITH REACTOR POWER LEVEL AT SIX PERCENT AND THE TURBINE NOT LATCHED, TESTING WAS BEING PERFORMED ON NO. 23 STEAM GENERATOR WATER LEVEL CONTROL SYSTEM. THIS TESTING WAS THE RESULT OF TWO REACTOR TRIPS WHICH OCCURRED DUE TO HIGH-HIGH LEVEL IN NO. 23 STEAM GENERATOR. THE EVENTS SURROUNDING THOSE REACTOR TRIPS ARE DOCUMENTED IN LER 84-010-00. TEST RESULTS REVEALED THAT NO. 23 STEAM GENERATOR FEEDWATER FLOW INDICATION CHANNELS WERE NOT RESPONDING. BOTH CHANNELS WERE DECLARED INOPERABLE AND TECH SPEC LIMITING CONDITION FOR OPERATION 3.0.3 WAS ENTERED. IN ACCORDANCE WITH THE ACTION REQUIREMENTS, A UNIT SHUTDOWN WAS PERFORMED WITHIN ONE HOUR. RADIOGRAPHY OF NO. 23 STEAM GENERATOR FEEDWATER FLOW NOZZLE REVEALED THAT THE NOZZLE HAD MOVED APPROXIMATELY TWENTY-FOUR INCHES FROM ITS DESIGNED LOCATION; APPARENTLY AS A RESULT OF A PREVIOUS FEEDWATER HAMMER EVENT. NO. 23 FEEDWATER FLOW NOZZLES WAS REPLACED, AND THE FEED FLOW TRANSMITTERS WERE CALIBRATED. THE STEAM GENERATOR FEEDWATER LEVEL CONTROL SYSTEM FUNCTIONED AS DESIGNED DURING THE SUBSEQUENT STARTUP ON MAY 5, 1984. DUE TO A UNIT SHUTDOWN, WHICH IS REQUIRED BY THE TECH SPECS, THE EVENT IS REPORTABLE IN ACCORDANCE WITH 10CFR 50.73(A)(2)(I)(A).

[190] SAN ONOPRE 2 DOCKET 50-361 LER 83-142
 INOPERABLE CABLE TRAY FIRE BLANKETS.
 EVENT DATE: 120783 REPORT DATE: 010684 NSSS: CE TYPE: PWR
 OTHER UNITS INVOLVED: SAN ONOPRE 3 (PWR)
 VENDOR: JOHNS-MANVILLE CORP.

(NSIC 190093) ON 12/7/83, IT WAS DETERMINED THAT 89 CABLE TRAY FIRE BLANKETS, IN VARIOUS FIRE ZONES, IDENTIFIED DURING THE 18 MONTH ROUTINE FIRE RATED ASSEMBLY INSPECTION, CONCLUDED ON 11/4/83, WERE INOPERABLE. IN ACCORDANCE WITH LCO 3.7.9, ACTION STATEMENT 'A', COMPENSATORY FIRE WATCHES WERE ESTABLISHED WITHIN ONE HOUR OF DISCOVERY DURING THE INSPECTION. THE CAUSE OF THE INOPERABILITIES OF THE CABLE TRAY FIRE BARRIERS IS UNKNOWN, BUT IS BELIEVED TO BE DUE TO CONSTRUCTION ACTIVITIES. COMPENSATORY MEASURES WILL REMAIN IN EFFECT UNTIL THE FIRE BARRIERS ARE REPAIRED OR REPLACED.

[191] SAN ONOPRE 2 DOCKET 50-361 LER 83-146
 THREE SAFETY INJECTION TANKS OUT OF SERVICE.
 EVENT DATE: 122383 REPORT DATE: 010684 NSSS: CE TYPE: PWR
 VENDOR: ITT HAMMEL DAHL CONOFLOW

(NSIC 190094) ON 12/23/83, AT 0832, WITH UNIT 2 IN MODE 1, CONTRARY TO LCO 3.5.1.D, SAFETY INJECTION TANKS (SIT'S) 007 AND 010 EXCEEDED THEIR NITROGEN PRESSURE LIMIT OF 625 PSIG WHILE SIT 008 WAS BEING FILLED. LCO 3.0.3 WAS ENTERED SINCE LCO 3.5.1 ALLOWS ONLY ONE INOPERABLE SIT. AT 0834, SIT 008 WAS RETURNED TO SERVICE UPON COMPLETION OF THE FILLING PROCESS. AT 0837, SIT 010 NITROGEN PRESSURE WAS RETURNED WITHIN LIMITS AND LCO 3.0.3 WAS EXITED. EXCESSIVE NITROGEN PRESSURE OF SIT'S 007 AND 010 WAS DUE TO AN INCREASE IN THEIR WATER LEVEL. THIS WAS CAUSED BY THE INLEAKAGE OF WATER THROUGH THEIR FILL AND DRAIN VALVES WITH THE

COMMON FILL HEADER PRESSURIZED. THE SIT'S FILL AND DRAIN VALVES FOR BOTH UNITS WILL BE INSPECTED, TESTED AND REPAIRED AS NECESSARY DURING THEIR NEXT SCHEDULED OUTAGE.

[192] SAN ONOFRE 2 DOCKET 50-361 LER 84-013
CONTAINMENT NEGATIVE PRESSURE LIMIT EXCEEDED.
EVENT DATE: 030584 REPORT DATE: 040284 NSSS: CE TYPE: PWR

(NSIC 189901) ON 3/5/84, WITH UNIT 2 IN MODE 1 AT 100% POWER, CONTAINMENT PRESSURE INCREASED TO A POSITIVE 0.8 POUNDS PER SQUARE INCH GAGE (PSIG). OPERATORS COMMENCED VENTING THE CONTAINMENT AT 2213 THROUGH THE MINIPURGE EXHAUST SYSTEM IN ACCORDANCE WITH PROCEDURE S023-1-4.2, "CONTAINMENT PURGE AND RECIRCULATION FILTRATION SYSTEM." THE CONTAINMENT WAS VENTED FOR 2 HRS. CONTAINMENT PRESSURE WAS REDUCED TO LESS THAN A NEGATIVE 0.3 PSIG AT 2334, CONTRARY TO LIMITING CONDITION FOR OPERATION (LCO) 3.6.1.4. CONTAINMENT PRESSURE WAS RESTORED TO WITHIN THE LIMITS OF LCO 3.6.1.4 AT 0155. THE INCIDENT RESULTED FROM A MISINTERPRETATION OF THE VENTING PROCEDURE. THE PROCEDURE LIMITED VENTING OF THE CONTAINMENT TO MAXIMUM OF 2 HRS. THE OPERATORS INTERPRETED THE PROCEDURE AS REQUIRING 2 HRS OF VENTING AND DID NOT RECOGNIZE THAT THE CONTAINMENT PRESSURE WAS APPROACHING TECH SPEC LIMITS DURING THE VENTING. THE RESPONSIBLE OPERATORS HAVE BEEN COUNSELED AND HAVE RECEIVED ADDITIONAL INSTRUCTION CONCERNING THE USE OF PROCEDURES AND THE TECH SPECS.

[193] SAN ONOFRE 2 DOCKET 50-361 LER 84-019
CEAC 1 DNBR TRIP.
EVENT DATE: 032484 REPORT DATE: 042384 NSSS: CE TYPE: PWR

(NSIC 189732) ON MARCH 24, 1984, AT 1934, WITH UNIT 2 IN MODE 1 AT 100% POWER, A FALSE POSITION INDICATION FOR CONTROL ELEMENT ASSEMBLY (CEA) 20 ON CONTROL ELEMENT ASSEMBLY CALCULATOR (CEAC) 1 RESULTED IN PENALTY FACTORS BEING GENERATED BY CEAC 1, WHICH, WHEN USED BY THE CORE PROTECTION CALCULATORS, RESULTED IN A REACTOR TRIP DUE TO LOW DEPARTURE FROM NUCLEATE BOILING RATIO (DNBR) TRIPS ON ALL FOUR REACTOR PROTECTION SYSTEM CHANNELS. FOLLOWING THE REACTOR TRIP, THE EMERGENCY FEEDWATER SYSTEM ACTUATED ON LOW STEAM GENERATOR LEVEL DUE TO SHRINK. NO SYSTEMS OR COMPONENTS MALFUNCTIONED DURING THIS EVENT. THE SPECIFIC CAUSE FOR THE FALSE POSITION INDICATION FOR CEA 20 HAS NOT BEEN DETERMINED. EXTENSIVE TROUBLESHOOTING AND COMPONENT REPLACEMENT PERFORMED DURING PREVIOUS SIMILAR CEA 20 POSITION INDICATION FAILURES (SEE LER'S 83-069, 83-087, 83-124 AND 83-155) HAVE NOT PERMANENTLY RESOLVED THIS PROBLEM. AS CORRECTIVE ACTION FOR THIS EVENT, A MULTIPURPOSE ACQUISITION AND CONTROL SYSTEM CHASSIS WAS REPLACED IN CEAC 1. THE REMOVED CHASSIS IS BEING TESTED TO DETERMINE IF A FAULT EXISTS.

[194] SAN ONOFRE 2 DOCKET 50-361 LER 84-021
SPURIOUS TOXIC GAS ISOLATION SYSTEM (TGIS) ACTUATIONS.
EVENT DATE: 033084 REPORT DATE: 042684 NSSS: CE TYPE: PWR
OTHER UNITS INVOLVED: SAN ONOFRE 3 (PWR)

(NSIC 189676) ON MAR 30, 1984, AT 1216, A SPURIOUS TOXIC GAS ISOLATION SYSTEM (TGIS) ACTUATION OCCURRED. SUBSEQUENT TO THIS DATE ADDITIONAL SPURIOUS ACTUATIONS OCCURRED ON APR 5, 7, 10, 11, 12, 15, 19, 22 AND 23. THE CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM (CREACUS) (EIS SYSTEM IDENTIFIER VI) ACTUATED ON EACH TGIS. FOR EACH OCCURRENCE, THE ACTUATION WAS VERIFIED TO BE SPURIOUS AND TGIS WAS RESET. THE SPURIOUS TGIS ACTUATIONS WERE THE RESULT OF VERY CONSERVATIVE SETPOINTS. THESE SETPOINTS RESULTED FROM THE ORIGINAL ANALYSIS WHICH CONTAINED UNNECESSARY CONSERVATISMS. SEE ALSO LER 84-012 (DOCKET NO. 50-361). THE LONG TERM CORRECTIVE ACTION WILL BE TO REANALYZE THE BASIS FOR THE TGIS SETPOINTS AND PROVIDE A TECH SPEC AMENDMENT TO PERMIT MORE APPROPRIATE TGIS SETPOINTS. IN ADDITION, A REQUEST FOR EXEMPTION FROM REPORTING INVALID

IN LER 84-015, WILL BE TO WRAP OR SEPARATE APPROPRIATE CABLES OR CABLE TRAYS, OR TO REVISE THE PHA TO CLARIFY APPROPRIATE CABLE WRAPPING REQUIREMENTS. THIS REPORT IS ALSO SUBMITTED TO FULFILL THE REQUIREMENTS OF LICENSE CONDITION 2.G. RELATING TO LICENSE CONDITIONS 2.C.(14)A AND 2.C.(12)A OF OPERATING LICENSES NPF-10 AND NPF-15 FOR UNITS 2 AND 3, RESPECTIVELY.

[198] SAN ONOFRE 2 DOCKET 50-361 LER 84-026
 SPURIOUS TOXIC GAS ISOLATION SYSTEM (TGIS) ACTUATIONS.
 EVENT DATE: 042784 REPORT DATE: 052584 NSSS: CE TYPE: PWR

(NSIC 189902) ON APR 27, 1984, AT 1300 AND 1314, SPURIOUS TOXIC GAS ISOLATION SYSTEM (TGIS) (EII SYSTEM IDENTIFIER JE) ACTUATIONS OCCURRED. SUBSEQUENT TO THIS DATE ADDITIONAL SPURIOUS ACTUATIONS OCCURRED ON APR 30, MAY 6, 11, 16, 21 AND 22. THE CONTROL ROOM EMERGENCY AIR CLEANUP SYSTEM (CREACUS) (EII SYSTEM IDENTIFIER VI) ACTUATED ON EACH TGIS. FOR EACH OCCURRENCE, THE ACTUATION WAS VERIFIED TO BE SPURIOUS AND TGIS WAS RESET. THE SPURIOUS TGIS ACTUATIONS WERE THE RESULT OF VERY CONSERVATIVE SETPOINTS. THESE SETPOINTS RESULTED FROM THE ORIGINAL ANALYSIS WHICH CONTAINED UNNECESSARY CONSERVATISMS. SEE ALSO LER 84-021 (DOCKET NO. 50-361). THE LONG TERM CORRECTIVE ACTION WILL BE TO REANALYZE THE BASIS FOR THE TGIS SETPOINTS AND PROVIDE A TECH SPEC AMENDMENT TO PERMIT MORE APPROPRIATE TGIS SETPOINTS. IN ADDITION, A REQUEST FOR EXEMPTION FROM REPORTING INVALID ACTUATIONS OF THE TGIS UNDER 10 CFR 50.72 AND 10 CFR 50.73 IS BEING CONSIDERED. THERE ARE NO REASONABLE OR CREDIBLE CIRCUMSTANCES WHICH COULD HAVE INCREASED THE SEVERITY OF THIS INCIDENT. NO PLANT SYSTEMS OR COMPONENTS FAILED AS A RESULT OF THIS EVENT.

[199] SAN ONOFRE 3 DOCKET 50-362 LER 83-107
 CONDENSATE STORAGE TANK HAS LOW LEVEL.
 EVENT DATE: 111983 REPORT DATE: 121983 NSSS: CE TYPE: PWR

(NSIC 190095) ON 11/19/83, AT 0213, WITH UNIT 3 IN MODE 1, BOTH MAIN FEEDWATER PUMPS TRIPPED DUE TO LOW SUCTION PRESSURE. THE OPERATOR MANUALLY TRIPPED THE REACTOR AND ACTUATED THE AUXILIARY FEEDWATER (AFW) SYSTEM. DURING PLANT STABILIZATION CONDENSATE STORAGE TANK (CST) 3T-121'S LEVEL DROPPED BELOW THE LIMIT OF LCO 3.7.1.3, AND THE ASSOCIATED ACTION STATEMENT WAS INVOKED. THE CAUSE WAS THE HIGH WATER DEMAND PLACED ON 3T-121 BY THE AFW SYSTEM. 3T-121'S LEVEL WAS RESTORED ON 11/19/83 AT 0405. A REVIEW OF THE AUTOMATIC LEVEL CONTROL SYSTEM FOR THE CST AND A PROPOSED TECH SPEC CHANGE ON ITS MINIMUM LEVEL REQUIREMENTS ARE IN PROGRESS. (SEE ALSO LER 83-078, DOCKET NO. 50-361).

[200] SAN ONOFRE 3 DOCKET 50-362 LER 84-012
 MAIN STEAM ISOLATION VALVES INOPERABLE.
 EVENT DATE: 033084 REPORT DATE: 043084 NSSS: CE TYPE: PWR

(NSIC 189734) ON 3/30/84 AT 0500, WITH UNIT 3 IN MODE 3, MAIN STEAM ISOLATION VALVES (MSIV'S) 3HV8204 AND 3HV8205 FAILED TO CLOSE WITHIN FIVE SECONDS AS REQUIRED BY TECH SPEC SURVEILLANCE REQUIREMENT 4.7.1.5. 3HV8204 AND 3HV8205 SHUT IN SEVEN (7) AND FIVE AND ONE-HALF (5.5) SECONDS, RESPECTIVELY. BOTH VALVES WERE MAINTAINED CLOSED TO FULLY MEET THEIR INTENDED SAFETY FUNCTION. INVESTIGATION DETERMINED THAT THE CYLINDER NITROGEN PRESSURE WHICH PROVIDES THE CLOSING FORCE FOR THE MSIV'S WAS LESS THAN THE EXPECTED 1120 TO 1130 PSIG WITH THE MSIV'S CLOSED. HOWEVER, THE NITROGEN PRESSURE WAS ABOVE THE MINIMUM SPECIFIED 2000 PSIG WITH THE MSIV'S OPEN PRIOR TO PERFORMING THE SURVEILLANCE. WE ARE CONSIDERING CHANGES TO THE LOW PRESSURE ALARM SETPOINT TO PROVIDE BETTER DETECTION OF LOW DOME NITROGEN PRESSURE. ADDITIONALLY, A TECH SPEC CHANGE WILL BE SUBMITTED TO INCREASE THE MSIV CLOSURE TIME FROM FIVE (5) TO SIX (6) SECONDS. THE SIX (6) SECOND CLOSURE HAS BEEN SHOWN TO RESULT IN CONSEQUENCES CONSERVATIVELY BOUNDED BY

THE EXISTING SAFETY ANALYSIS. THE CYLINDERS WERE CHARGED TO 1125 PSIG. 3HV8204 AND 3HV8205 STROKED SATISFACTORILY ON APRIL 1 AND APRIL 2, 1984, RESPECTIVELY.

[201] SAN ONOFRE 3 DOCKET 50-362 LER 84-013
DOSE EQUIVALENT IODINE LIMITS EXCEEDED.
EVENT DATE: 033084 REPORT DATE: 042684 NSSS: CE TYPE: PWR

(NSIC 189735) PURSUANT TO LIMITING CONDITION FOR OPERATION (LCO) 3.4.7, ACTION STATEMENT 'D' OF APPENDIX A, TECH SPECS TO FACILITY OPERATING LICENSE NPF-15 FOR SAN ONOFRE UNIT 3, THIS SUBMITTAL PROVIDES THE REQUIRED 30-DAY WRITTEN LER FOR AN OCCURRENCE INVOLVING THE REACTOR COOLANT SYSTEM SPECIFIC ACTIVITY. ON 3/30/84, AT 1900, WITH UNIT 3 IN MODE 3 FOLLOWING A REACTOR SHUTDOWN FOR MAINTENANCE, A REACTOR COOLANT SYSTEM (RCS) SAMPLE ANALYSIS INDICATED THAT RCS SPECIFIC ACTIVITY EXCEEDED 1.0 MICROCURIE/GRAM DOSE EQUIVALENT (DE) I-131. PURIFICATION FLOW WAS INCREASED AND RCS ACTIVITY WAS REDUCED TO LESS THAN 1.0 MICROCURIE/GRAM DE I-131 AT 0020 ON 4/1/84. ON 4/1/84, AT 0905, WITH UNIT 3 IN MODE 2 AT 5% POWER, RCS SAMPLE ANALYSIS AGAIN INDICATED THAT RCS ACTIVITY EXCEEDED 1.0 MICROCURIE/GRAM DOSE EQUIVALENT (DE) I-131. PURIFICATION FLOW WAS INCREASED AND RCS ACTIVITY WAS REDUCED TO LESS THAN 1.0 MICROCURIE/GRAM DE I-131 AT 1310 ON 4/1/84. NO FURTHER CORRECTIVE ACTION IS PLANNED.

[202] SAN ONOFRE 3 DOCKET 50-362 LER 84-015
DOSE EQUIVALENT IODINE LIMITS EXCEEDED.
EVENT DATE: 042784 REPORT DATE: 052984 NSSS: CE TYPE: PWR

(NSIC 189903) PURSUANT TO LIMITING CONDITION FOR OPERATION (LCO) 3.4.7, ACTION STATEMENT D OF APPENDIX A, TECH SPECS TO FACILITY OPERATING LICENSE NPF-15 FOR SAN ONOFRE UNIT 3, THIS SUBMITTAL PROVIDES THE REQUIRED 30-DAY WRITTEN LICENSEE EVENT REPORT (LER) FOR 3 OCCURRENCES INVOLVING THE REACTOR COOLANT SYSTEM SPECIFIC ACTIVITY EXCEEDING 1.0 MICROCURIE/GRAM DOSE EQUIVALENT (DE) I-131 AT 1005 ON APR 27, 1984 WITH UNIT 3 IN MODE 1 AT 80% POWER; AT 0330, ON MAY 5, 1984 WITH UNIT 3 IN MODE 3; AND AT 0820, MAY 7, 1984 WITH UNIT 3 IN MODE 1 AT APPROXIMATELY 20% POWER. RCS ACTIVITY WAS REDUCED TO LESS THAN 1.0 MICROCURIE/GRAM DE I-131 WITHIN 48 HRS AFTER EACH OCCURRENCE BY PURIFICATION FLOW. DURING THE THIRD OCCURRENCE, ON MAY 7, 1984, A REQUIRED RCS SAMPLE DUE AT 2025 WAS DELAYED UNTIL 2200 BECAUSE ALL ACTIVITIES INVOLVING CONTAMINATED SYSTEMS INCLUDING RCS SAMPLING, WERE SUSPENDED PENDING INVESTIGATION OF A PLANT VENT STACK ALARM. AS A RESULT, THE 4 HR LIMIT REQUIRED BY LCO 3.4.7, ACTION STATEMENT 'D', WAS NOT MET. IN ADDITION, IT WAS DETERMINED THAT THERE HAVE BEEN PAST OCCURRENCES WHEN RCS SAMPLES WERE NOT TAKEN AND ANALYZED WITHIN THE REQUIRED 4 HRS DUE TO A MISUNDERSTANDING OF THE SAMPLING INTERVAL LIMIT. WE WILL CONTINUE TO MONITOR AND EVALUATE PRIMARY COOLANT ACTIVITY.

[203] SAN ONOFRE 3 DOCKET 50-362 LER 84-017
HIGH STEAM GENERATOR WATER LEVEL REACTOR TRIPS.
EVENT DATE: 050584 REPORT DATE: 052184 NSSS: CE TYPE: PWR

(NSIC 189904) ON MAY 5, 1984, WITH UNIT 3 IN MODE 2 AT .3% POWER, AND ON MAY 8, 1984, WITH UNIT 3 IN MODE 1 AT 8% POWER, A REACTOR TRIP OCCURRED ON HIGH STEAM GENERATOR WATER LEVEL. BOTH TRIPS RESULTED FROM OVERFEEDING THE STEAM GENERATORS WITH THE FEEDWATER CONTROL SYSTEM (EIS SYSTEM CODE JB) IN MANUAL CONTROL DURING ROUTINE REACTOR SHUTDOWNS. ALL PLANT SYSTEMS RESPONDED NORMALLY TO STABILIZE PLANT CONDITIONS DURING THESE EVENTS. MANUAL STEAM GENERATOR LEVEL CONTROL IS DIFFICULT AT LOW POWER DUE TO THE "SHRINK" AND "SWELL" RESPONSES OF STEAM GENERATOR WATER LEVEL. AS PREVIOUSLY REPORTED IN LER 84-020 (DOCKET NO. 50-361), DESIGN CHANGES TO OPTIMIZE STEAM GENERATOR WATER LEVEL CONTROL AT ALL POWER LEVELS ARE UNDER CONSIDERATION. THERE ARE NO REASONABLE OR CREDIBLE ALTERNATIVE CIRCUMSTANCES UNDER WHICH THIS EVENT WOULD HAVE BEEN MORE SEVERE.

[204] SEQUOYAH 1 DOCKET 50-327 LER 83-009
 CONTROL ROD POSITION INDICATION SYSTEM INOPERABLE.
 EVENT DATE: 013183 REPORT DATE: 021183 NSSS: WE TYPE: PWR

(NSIC 189874) UNIT 1 IN MODE 1 AT 100% POWER. AT 1226 HRS DURING THE PERFORMANCE OF SPECIAL TEST INSTRUCTION 82-06, THE CONTROL ROD POSITION INDICATION SYSTEM WAS INOPERABLE WHEN THE INDICATED POSITION FOR ALL RODS DEVIATED GREATER THAN 12 STEPS FROM ACTUAL ROD POSITION. THIS EVENT CAUSED ENTRY INTO LCOS 3.1.3.2 AND 3.0.3. SPECIAL TEST INSTRUCTION 82-06 WAS BEING RUN UNDER DEGRADED VOLTAGE CONDITIONS. WHEN THE 480 V SHUTDOWN BOARD VOLTAGE WAS REDUCED TO 410 VOLTS, THIS CAUSED THE ROD POSITION INDICATION SYSTEM TO INDICATE ERRONEOUS POSITIONS. AT 1228 HRS, 480 V BOARD VOLTAGE WAS RAISED AND ALL ROD POSITIONS INDICATED NORMAL. EMPHASIS WAS PLACED ON A MORE DETAILED EVALUATION OF DEGRADED VOLTAGE TESTS, IF REQUIRED, IN THE FUTURE.

[205] SEQUOYAH 1 DOCKET 50-327 LER 84-023
 POWER OPERATED RELIEF VALVES INOPERABLE.
 EVENT DATE: 040284 REPORT DATE: 050184 NSSS: WE TYPE: PWR
 OTHER UNITS INVOLVED: SEQUOYAH 2 (PWR)

(NSIC 189898) WHILE PERFORMING SURVEILLANCE INSTRUCTION (SI) 92, "REMOTE SHUTDOWN MONITORING INSTRUMENTATION - PRESSURIZER PRESSURE CHANNEL CALIBRATIONS," THE ALARM INDICATING LIGHTS ON THE BISTABLES OF THE POWER OPERATED RELIEF VALVES (PORV) APPEARED TO BE REVERSED FOR THE CORRECT BISTABLE ACTION. THE WIRING AND OPERATION OF THE BISTABLES AND CONTROLLER MODULE WAS INVESTIGATED AND THOUGHT TO BE INCORRECT. THE WIRING ON THE PORVS FOR BOTH UNITS WAS MODIFIED TO THIS NEW POSITION. LATER, THE WIRING AND BISTABLE OPERATION WAS REVIEWED AND MORE THOROUGHLY INVESTIGATED WITH ADDITIONAL INFORMATION AND DRAWINGS. THIS ADDITIONAL INVESTIGATION SHOWED THAT THE PORVS HAD BEEN MODIFIED TO AN INOPERABLE (REVERSE FROM NORMAL) STATE. THE PORVS WERE IMMEDIATELY BLOCKED ON THE OPERATING UNIT WHILE BOTH PORVS ON BOTH UNITS WERE REWIRED AND TESTED TO BE IN THE CORRECT WIRING CONFIGURATION AND OPERATING CORRECTLY. THE SURVEILLANCE INSTRUCTION HAS BEEN REVISED TO EXPLAIN PORV OPERATION AND TO GIVE DETAILS OF BISTABLE ACTION. THE ADMINISTRATIVE INSTRUCTION (AI-25) HAS BEEN REVISED TO BETTER CONTROL WIRING CHANGES.

[206] SEQUOYAH 1 DOCKET 50-327 LER 84-026
 REACTOR TRIPS ON LOW SG LEVEL.
 EVENT DATE: 041784 REPORT DATE: 051584 NSSS: WE TYPE: PWR

(NSIC 189725) AT 2148 ON 04/17/84, UNIT 1 EXPERIENCED A REACTOR TRIP. UNIT 1 WAS IN MODE 1 (2240 PSIG, 556 DEGREES F) AT 30% REACTOR POWER JUST PRIOR TO THE EVENT. A TURBINE TRIP OCCURRED DUE TO FAILURE OF A GENERATOR STATOR COOLING WATER PUMP. SUBSEQUENT LOW-LOW LEVEL IN STEAM GENERATOR NUMBER THREE RESULTED IN A REACTOR TRIP FROM APPROXIMATELY 18% REACTOR POWER. UNIT 1 STABILIZED AT 547 DEGREES F FOLLOWING THE REACTOR TRIP.

[207] SEQUOYAH 1 DOCKET 50-327 LER 84-028
 AUXILIARY BUILDING VENTILATION ISOLATION.
 EVENT DATE: 041884 REPORT DATE: 051784 NSSS: WE TYPE: PWR

(NSIC 189727) A HIGH RADIATION ALARM WAS ACTUATED WHICH CAUSED AN AUXILIARY BUILDING ISOLATION (ABI) TO OCCUR. INVESTIGATION REVEALED THAT PERSONNEL WERE PLACING BORIC ACID EVAPORATOR 'B' IN SERVICE AND DRAINING THE VENT HEADER AT THE SAME TIME THAT THE VOLUME CONTROL TANK WAS BEING BURPED (VENTED). THIS SIMULTANEOUS ACTION INCREASED THE VENT HEADER PRESSURE AND CAUSED EXCESSIVE GAS TO BE VENTED CAUSING THE AUXILIARY BUILDING VENTILATION SYSTEM TO ISOLATE.

[208] SEQUOYAH 1 DOCKET 50-327 LER 84-030
 THIMBLE TUBE EJECTION.
 EVENT DATE: 041984 REPORT DATE: 051884 NSSS: WE TYPE: PWR

(NSIC 190122) ON 4/19/84, UNIT 1 WAS IN MODE 1 (2235 PSIG, 558 DEGREES F) AT 30% REACTOR POWER WITH MAINTENANCE PERSONNEL CLEANING INCORE DETECTOR THIMBLE TUBES. A HIGH PRESSURE CONNECTION ON THE THIMBLE TUBE AT THE SEAL TABLE FAILED RESULTING IN A REACTOR COOLANT SYSTEM PRESSURE BOUNDARY LEAK OF APPROX. 25-35 GPM AND EJECTION OF ONE INCORE DETECTOR THIMBLE TUBE AT 2100 CST.

[209] SEQUOYAH 1 DOCKET 50-327 LER 84-027
 CONTAINMENT BUILDING VENTILATION ISOLATIONS.
 EVENT DATE: 042084 REPORT DATE: 051884 NSSS: WE TYPE: PWR

(NSIC 189726) A HIGH RADIATION ALARM WAS ACTUATED WHICH CAUSED A CONTAINMENT VENTILATION ISOLATION (CVI) TO OCCUR. INVESTIGATION REVEALED THAT A VOLTAGE SPIKE OCCURRED AS A RESULT OF ELECTROMAGNETIC INTERFERENCE (EMI) WHICH WAS GENERATED BY SLIPPAGE OF THE FILTER PAPER IN TWO INCIDENTS AND STRAY SIGNALS IN ANOTHER INCIDENT. RADIATION LEVELS WERE NOT ABOVE NORMAL DURING THIS TIME. THE INADVERTENT HIGH RADIATION ALARM WAS RESET AND THE MONITOR WAS RETURNED TO SERVICE. A TIME DELAY IS BEING ADDED TO THE ACTUATION SIGNAL TO ALLOW TIME FOR SPIKES TO DECAY.

[210] SEQUOYAH 1 DOCKET 50-327 LER 84-031
 PRESSURIZER SAFETY RELIEF VALVE INOPERABLE REQUIRING REACTOR SHUTDOWN.
 EVENT DATE: 050584 REPORT DATE: 060184 NSSS: WE TYPE: PWR
 VENDOR: CORSBY VALVE & GAGE CO.
 MASONEILAN INTERNATIONAL, INC.

(NSIC 189669) AT 1800 CST ON 5/5/84, UNIT 1 INITIATED A PLANT SHUTDOWN REQUIRED BY TECH SPECS DUE TO AN INOPERABLE PRESSURIZER SAFETY RELIEF VALVE. THE UNIT WAS IN MODE 3 (547 DEGREES F, 2235 PSIG) JUST PRIOR TO INITIATION OF A SHUTDOWN. ON 5/6/84 AT 0117 CST WITH THE UNIT IN MODE 4 (330 DEGREES F, 600 PSIG), A REACTOR TRIP OCCURRED ON LOW-LOW STEAM GENERATOR LEVEL IN THE NUMBER 1 STEAM GENERATOR.

[211] SEQUOYAH 1 DOCKET 50-327 LER 84-029
 THREE AUXILIARY BLDG VENTILATION ISOLATIONS OCCUR.
 EVENT DATE: 050784 REPORT DATE: 053084 NSSS: WE TYPE: PWR

(NSIC 190121) A HIGH RADIATION ALARM WAS ACTUATED WHICH CAUSED AN AUXILIARY BLDG. ISOLATION (ABI) TO OCCUR. INVESTIGATION REVEALED THAT IN 2 INCIDENTS, BECAUSE DETECTOR OUTPUT IS NOT STABLE AND THE RADIATION LEVEL IS SO CLOSE TO THE SETPOINT, NORMAL FLUCTUATIONS OF THE DETECTOR TRIPPED THE ALARM. IN ANOTHER INCIDENT, THE POWER SOURCE FOR A RADIATION MONITOR WAS TRANSFERRED FROM ONE BOARD TO ANOTHER WHICH CAUSED AN ALARM. RADIATION LEVELS WERE NOT ABOVE NORMAL DURING THIS TIME.

[212] SEQUOYAH 1 DOCKET 50-327 LER 84-032
 REACTOR TRIP ON LOW FW FLOW AND LOW SG LEVEL.
 EVENT DATE: 051084 REPORT DATE: 060184 NSSS: WE TYPE: PWR

(NSIC 189670) ON 5/10/84 AT 2322 CST, WITH UNIT 1 IN MODE 1 (553 DEGREES F, 2240 PSIG) AT 30% REACTOR POWER, A REACTOR TRIP OCCURRED ON LOW FEEDWATER FLOW COINCIDENT WITH LOW STEAM GENERATOR LEVEL IN THE NUMBER 2 STEAM GENERATOR.

[213] ST. LUCIE 1 DOCKET 50-335 LER 84-002
 INCOMPLETE SURVEILLANCE OF STEAM GENERATOR.
 EVENT DATE: 050484 REPORT DATE: 060384 NSSS: CE TYPE: PWR

(NSIC 189958) THIS WAS FPL'S FIRST PERFORMANCE OF A STEAM GENERATOR EDDY CURRENT TESTING PROGRAM FOR AN OPERATING UNIT. THE INSPECTION WAS SUPPORTED BY FPL TRAINED PERSONNEL, COMPLIMENTED BY CONTRACTOR PERSONNEL AS ADVISORS. THE PROGRAM WAS DESIGNED TO INSPECT APPROX. 9% OF THE TUBES IN EACH STEAM GENERATOR, THEREBY ADDRESSING FPL AND INDUSTRY CONCERNS. THIS REQUIRED THAT THE INITIAL PROGRAM INCLUDE SEVERAL DISCRETE AREAS WITHIN THE GENERATOR. A PORTION OF THE STEAM GENERATOR TUBES WERE INSPECTED TO TECH SPEC REQUIREMENTS, WHILE THE FULL LENGTH OF OTHER TUBES WERE EXAMINED TO ADDRESS THE INDUSTRY FINDINGS (I.E., ON THE OPPOSITE LEGS OF THE GENERATORS). DURING THE INSPECTIONS, IT WAS NECESSARY TO INCREASE THE INSPECTION OF THE "1A" GENERATOR TO 100% TO SATISFY TECH SPEC CATEGORY C3, AS WELL AS FPL CONCERNS. THE INSPECTION PROGRAM IN "1B" WAS ALSO INCREASED TO ADDRESS SIMILAR AREAS OF CONCERN. DURING THE EXPANDED PROGRAM IN THE 1B GENERATOR, WE FOUND INDICATIONS WHICH PLACED US IN TECH SPEC CATEGORY C2. TO ADDRESS THESE CIRCUMSTANCES WE DECIDED TO INSPECT THE STEAM GENERATORS FROM BOTH (HOT LEG/COLD LEG) CHANNEL HEADS AND INCREASED THE INSPECTION OF THE "1B" GENERATOR TO 100% EVEN THOUGH WE WERE, AND REMAINED IN, CAT 2. WE DECIDED TO INCREASE THE INSPECTION TO FULL LENGTH IN BOTH GENERATORS. THIS RESULTED IN GOING BACK INTO MANY OF THE PREVIOUSLY INSPECTED TUBES TO INSPECT THE OPPOSITE LEG.

[214] ST. LUCIE 2 DOCKET 50-389 LER 84-004
 REACTOR TRIP DUE TO LOW STEAM GENERATOR LEVEL.
 EVENT DATE: 020984 REPORT DATE: 030984 NSSS: CE TYPE: PWR
 VENDOR: ALLIS CHALMERS
 CORSBY VALVE & GAGE CO.
 INGERSOL-RAND CO.

(NSIC 189905) WHILE AT 100% POWER THE MAIN FEEDWATER PUMP TRIPPED DUE TO LOW SUCTION PRESSURE. THE REACTOR SUBSEQUENTLY TRIPPED ON LOW SG LEVEL. FOLLOWING THE TRIP THE 2C AUXILIARY FEEDWATER PUMP STARTED THEN TRIPPED ON OVERSPEED. A SINGLE STEAM SAFETY VALVE ON THE 'A' STEAM GENERATOR ALSO STUCK PARTIALLY OPEN FOLLOWING THE TRIP. APPROX. 40 MINS. WAS REQUIRED TO RESEAT THE SAFETY. COOLDOWN FROM THE OPEN SAFETY WAS SUCCESSFULLY CONTROLLED. THE CAUSE OF THE LOW SUCTION PRESSURE TO THE FEEDWATER PUMPS WAS NOT POSITIVELY DETERMINED. CONDENSATE PUMP VENT LINE DESIGN PROBABLY CONTRIBUTED. THE DESIGN IS BEING CHANGED TO ALLOW PROPER VENTING DURING STRAINER CLEANING. THE 2C AUXILIARY FEEDWATER PUMP TRIPPED DUE TO TRANSIENTS ON A POWER SUPPLY DURING AUXILIARY FEEDWATER ACTUATION. THE CAUSE WAS NOT IMMEDIATELY KNOWN. HOWEVER, REPEATED TESTING, OVER A PERIOD OF 6 DAYS, REVEALED THE PROBLEM. A MODIFICATION HAS BEEN COMPLETED TO ELIMINATE THIS PROBLEM. THE SAFETY STUCK OPEN BECAUSE A COTTER PIN WAS MISSING FROM A SPINDLE NUT. WHEN THE SAFETY OPENED (AS EXPECTED) THE NUT VIBRATED DOWN AND HELD THE VALVE PARTIALLY OPEN. THE NUT PIN WAS REPLACED AND ALL SAFETIES WERE CHECKED. THIS IS THE FIRST LER OF A REACTOR TRIP CAUSED BY A TRIP OF A FEEDWATER PUMP.

[215] SUMMER 1 DOCKET 50-395 LER 84-023
 ENGINEERING SAFETY FEATURE ACTUATION OCCURS.
 EVENT DATE: 041784 REPORT DATE: 051784 NSSS: WE TYPE: PWR

(NSIC 189745) AT 1025 HRS ON APR 17, 1984, WITH THE PLANT IN MODE 5, AN INADVERTENT UNDERVOLTAGE SIGNAL OCCURRED ON ENGINEERED SAFETY FEATURES (ESF) BUS 1DA. THE SIGNAL ACTUATED THE ESF LOAD SEQUENCER (ESFLS) AND ATTEMPTED TO START 'A' DIESEL GENERATOR WHICH WAS TAGGED OUT OF SERVICE FOR MAINTENANCE. THE ESFLS STRIPPED ALL NON-ESSENTIAL LOADS AND OPENED THE NORMAL INCOMING BREAKER TO BUS 1DA. THE INOPERABLE DIESEL INTERRUPTED FURTHER OPERATION OF THE ESFLS AT THIS

POINT. THE DEENERGIZED BUS PREVENTED OPERATION OF ANY SAFETY FEATURE EQUIPMENT. OPERATIONS PERSONNEL RESTORED THE NORMAL INCOMING POWER TO BUS 1DA AT 1050 HRS AFTER IDENTIFYING THE CAUSE OF THE EVENT.

[216] SUMMER 1 DOCKET 50-395 LER 84-024
 MAIN TURBINE TRIP REACTOR TRIP.
 EVENT DATE: 042284 REPORT DATE: 052284 NSSS: WE TYPE: PWR
 VENDOR: ANCHOR/DARLING VALVE CO.

(NSIC 189906) ON APR 22, 1984, WITH REACTOR POWER AT 12%, AND ON APR 29, 1984, WITH REACTOR POWER AT 11%, THE REACTOR TRIPPED DUE TO A MAIN TURBINE TRIP. BOTH MAIN TURBINE TRIPS OCCURRED AS A RESULT OF MAIN TURBINE SHAFT OIL PUMP LOW DISCHARGE PRESSURE WHILE ROLLING THE MAIN TURBINE UP TO 1800 RPM. THE REACTOR PROTECTION SYSTEM FUNCTIONED PROPERLY ON BOTH EVENTS, AND ENGINEERING SAFETY FEATURE ACTUATED AS DESIGNED (I.E., EMERGENCY FEEDWATER PUMP START ON LOW-LOW STEAM GENERATOR LEVEL). THE CAUSES OF THESE EVENTS WERE ATTRIBUTED TO CONSERVATIVE SWITCH SETTINGS AND LOSS OF SUCTION ON THE MOTOR SUCTION PUMP. INSPECTION OF THE MOTOR SUCTION PUMP AND CHECK VALVE WILL BE PERFORMED DURING THE FIRST REFUELING OUTAGE. THE PROCEDURE HAS BEEN CHANGED TO DELETE THE HEAD CORRECTION ON THE PRESSURE SWITCH, AND THE PRESSURE SWITCH SETPOINT WILL BE CHANGED DURING THE FIRST REFUELING OUTAGE.

[217] SUMMER 1 DOCKET 50-395 LER 84-025
 REACTOR TRIPS FOLLOWING TURBINE THRUST BEARING WEAR DETECTOR MODIFICATION.
 EVENT DATE: 042584 REPORT DATE: 052584 NSSS: WE TYPE: PWR

(NSIC 190131) AT APPROXIMATELY 0247 HRS, APR 25, 1984, THE REACTOR TRIPPED FROM 100% INDICATED POWER AS A RESULT OF A MAIN TURBINE TRIP. THE TRIP OCCURRED AS THE MAIN TURBINE THRUST BEARING WEAR DETECTOR WAS BEING RETURNED TO SERVICE FOLLOWING A MODIFICATION. FOLLOWING THE SCRAM, FEEDWATER REGULATING VALVES A AND B DID NOT AUTOMATICALLY CLOSE UPON THE REACTOR TRIP COINCIDENT WITH LOW TAVG. FEEDWATER ISOLATION WAS ESTABLISHED BY THE AUTOMATIC CLOSURE OF THE MAIN FEEDWATER ISOLATION VALVES. THE CAUSE OF THIS EVENT WAS DUE TO PERSONNEL ERROR. THE TECHNICIAN DID NOT ADEQUATELY REVIEW THE SYSTEM STATUS PRIOR TO PERFORMING THE WORK. THIS EVENT WAS DISCUSSED WITH THE INDIVIDUAL INVOLVED, AND THE IMPORTANCE OF FULLY UNDERSTANDING A JOB, NO MATTER HOW SIMPLE, WAS EMPHASIZED.

[218] SUMMER 1 DOCKET 50-395 LER 84-026
 MAIN STEAM ISOLATION OCCURS.
 EVENT DATE: 050584 REPORT DATE: 060484 NSSS: WE TYPE: PWR
 VENDOR: WESTINGHOUSE ELECTRIC CORP.

(NSIC 190132) ON MAY 5, 1984, AT 1929 HRS, WITH THE PLANT IN MODE 3 (HOT STANDBY), A MAIN STEAM ISOLATION (ENGINEERED SAFETY FEATURES ACTUATION) OCCURRED BECAUSE OF A HI STEAM FLOW SIGNAL COINCIDENT WITH A LO-LO REACTOR COOLANT SYSTEM (RCS) TAVE SIGNAL (533 F). THE HI STEAM FLOW BISTABLES HAD BEEN TRIPPED TO ALLOW MAINTENANCE ON THE C LOOP MAIN STEAM FLOW TRANSMITTER IPT-494. MAINTENANCE WORK WAS SIMULTANEOUSLY BEING PERFORMED ON THE MASTER MAIN STEAM DUMP CONTROLLER WHEN THE ISOLATION OCCURRED. DURING INSTALLATION OF ELECTRONIC CARDS INTO THE CONTROLLER, THE STEAM DUMP MANUAL/AUTO STATION GENERATED A 50% DEMAND SIGNAL TO THE STEAM DUMP SYSTEM. THE OPENING OF THE MAIN STEAM DUMP VALVES COOLED THE RCS FROM 557 F TO 551 F. THE COINCIDENCE OF THE RCS LO-LO TAVE AND THE TRIPPED HI STEAM FLOW BISTABLES SATISFIED THE ACTUATION LOGIC FOR MAIN STEAM ISOLATION. THE OPERATORS TOOK PROMPT ACTION TO TERMINATE THE STEAM DUMP AND REESTABLISHED RCS NORMAL OPERATING TEMPERATURE AND PESSURE FOR MODE 3. THE LICENSEE HAS REPEATEDLY ATTEMPTED TO INDUCE A SPURIOUS MASTER MAIN STEAM DUMP CONTROLLER OUTPUT BY ALTERNATING THE INSTALLATION AND REMOVAL OF ELECTRONIC CARDS IN THE CONTROLLER.

THE PERMISSIVE WAS REINSTALLED AND PERMANENT MODIFICATIONS WERE COMPLETED DURING THE TIE-IN OUTAGE.

[227] SUSQUEHANNA 1 DOCKET 50-387 LER 82-024 REV 1
 UPDATE ON POTENTIAL FAILURE OF THE EMERGENCY SERVICE WATER SYSTEM.
 EVENT DATE: 101582 REPORT DATE: 032784 NSSS: GE TYPE: BWR

(NSIC 189859) DURING AN OUTAGE FROM STARTUP TESTING, IT WAS DETERMINED THAT A FAILURE OF ONE OF SEVERAL VALVES TO OPEN WOULD CAUSE A LOSS OF FLOW IN THE EMERGENCY SERVICE WATER SYSTEM, THUS RENDERING THE DG'S INOPERABLE SHORTLY AFTER THEIR INITIATION. NO ADVERSE CONSEQUENCES EXIST, IN THAT, THE UNIT WILL REMAIN SHUT DOWN UNTIL A RESOLUTION IS DETERMINED AND IMPLEMENTED. THE EVENT IS THE RESULT OF FINDING AN UNANALYZED SINGLE FAILURE WHICH RENDERS THE ESW SYSTEM INOPERABLE. NO IMMEDIATE CORRECTIVE ACTION WAS TAKEN EXCEPT TO PREVENT STARTUP. A LOW FLOW DETECTOR WAS ADDED TO THE ESW SYSTEM TO DETECT AND BYPASS THE FAILED VALVE.

[228] SUSQUEHANNA 1 DOCKET 50-387 LER 83-066 REV 1
 UPDATE ON EMERGENCY SERVICE WATER CHECK VALVE FAILURE.
 EVENT DATE: 041483 REPORT DATE: 030784 NSSS: GE TYPE: BWR
 VENDOR: PACIFIC VALVES, INC.

(NSIC 189877) DURING THE IMPLEMENTATION OF A PLANT MODIFICATION TO REMOVE THE INTERNALS OF A PACIFIC CHECK VALVE IN THE EMERGENCY SERVICE WATER SYSTEM TO CORRECT A RECOGNIZED DEFICIENCY IN THOSE VALVES, THE VALVE DISC WAS FOUND LODGED IN THE PIPE AND VARIOUS SMALL VALVE PARTS WERE MISSING. THERE WERE NO ADVERSE CONSEQUENCES IN THAT ADEQUATE SYSTEM FLOW WAS ACHIEVED EACH TIME THE SYSTEM WAS STARTED. CHECK VALVE WEAR WAS CAUSED BY EXTENSIVE SYSTEM RUN-TIME DURING THE RESOLUTION OF THE ESW WATER HAMMER PROBLEM ENCOUNTERED LAST YEAR. A GENERIC PROBLEM WITH OTHER PACIFIC CHECK VALVES HAS BEEN IDENTIFIED AND A PROGRAM DEVELOPED FOR THEIR TESTING.

[229] SUSQUEHANNA 1 DOCKET 50-387 LER 83-140 REV 1
 UPDATE ON HPCI COOLING WATER VALVE OPERATOR FAILS.
 EVENT DATE: 092783 REPORT DATE: 040684 NSSS: GE TYPE: BWR
 VENDOR: LIMITORQUE CORP.

(NSIC 189878) DURING A HPCI OPERABILITY SURVEILLANCE, THE VALVE WHICH CONTROLS COOLING WATER FLOW TO THE HPCI LUBE OIL COOLER AND BAROMETRIC CONDENSER WOULD NOT CYCLE ELECTRICALLY. THE VALVE STROKED FREELY WHEN OPERATED MANUALLY. INVESTIGATION SHOWED THAT THE VALVE MOTOR'S OVERLOAD HEATERS HAD BURNED OPEN AND THAT THE VALVE OPERATOR MOTOR WAS DAMAGED. HPCI INITIATION CAPABILITY WAS NOT AFFECTED AND THE VALVE COULD HAVE BEEN OPERATED MANUALLY. THE REMAINING ECCS WERE AVAILABLE. VALVE ELECTRICAL INOPERABILITY RESULTED WHEN THE TORQUE SWITCH DID NOT ACTUATE DUE TO CONDITIONS IN THE SPRING PACK. THE SPRING PACK WAS CLEANED AND REASSEMBLED AND DAMAGED COMPONENTS REPLACED. THE VALVE WAS SUCCESSFULLY TESTED AND RETURNED TO SERVICE. AN INVESTIGATION WAS COMPLETED WHICH DETERMINED THAT THE CIRCUMSTANCES WHICH RESULTED IN THIS LER ARE UNIQUE. NO ADDITIONAL INVESTIGATIONS ARE PLANNED.

[230] SUSQUEHANNA 1 DOCKET 50-387 LER 83-153 REV 1
 UPDATE ON INVERTER FUSE BLOWS.
 EVENT DATE: 110283 REPORT DATE: 032084 NSSS: GE TYPE: BWR
 VENDOR: TOPAZ ELECTRONICS

(NSIC 189879) WHILE SHUTDOWN AT 1940 HRS ON 11-2-83, A FUSE BLEW THAT WAS SUPPLYING POWER TO A TOPAZ INVERTER. THIS EVENT IS REPORTABLE PER TECH SPEC

6.9.1.9.B. THE INVERTER SUPPLIES POWER TO REACTOR CORE ISOLATION COOLING (RCIC) INSTRUMENTATION AND SPEED CONTROL CIRCUITRY AT THE REMOTE SHUTDOWN PANEL (RSP). THE OPERATION OF RCIC FROM THE RSP WAS AFFECTED, BUT THE SYSTEM FUNCTIONED NORMALLY IN ALL OTHER ASPECTS. RCIC WAS NOT REQUIRED TO BE OPERATED FROM THE RSP DURING THIS PERIOD. THE FUSE HAS BEEN REPLACED WITH A TYPE FNM-10, 10 AMP SLOW BLOW FUSE BASED ON DISCUSSIONS WITH GE AND BUSSMAN. RECORDERS WERE INSTALLED IN THE CIRCUIT TO MONITOR OPERATING CHARACTERISTICS AND ENVIRONMENTAL CONDITIONS. THE MONITORED PARAMETERS WERE WITHIN NORMAL RANGES. NO ADDITIONAL CIRCUIT MONITORING IS PLANNED. NO FURTHER ACTIONS REQUIRED. SYSTEM OPERATION HAS BEEN SATISFACTORY.

[231] SUSQUEHANNA 1 DOCKET 50-387 LER 84-000S
 HPCI ACTUATES.
 EVENT DATE: 110283 REPORT DATE: 011884 NSSS: GE TYPE: BWR

(NSIC 190284) MAIN STEAM LINE HIGH RAD SIGNAL. THIS SPECIAL REPORT, RLQUIRED BY TECH SPEC 3.5.1 ACTION F AND 6.9.2, DOCUMENTS AN EMERGENCY CORE COOLING SYSTEM ACTUATION WHICH RESULTED IN INJECTION OF WATER INTO THE REACTOR COOLANT SYSTEM. A REACTOR SCRAM OCCURRED ON NOV 2, 1983 DUE TO A MAIN STEAM LINE HIGH RADIATION SIGNAL. THE PLANT RESPONDED TO THE TRANSIENT AS DESIGNED. THE RESPONSE INCLUDED AN AUTOMATIC HIGH PRESSURE COOLANT INJECTION (HPCI) INITIATION AND INJECTION. AS OF THE NOV 2, 1983 OCCURENCE, THE TOTAL ACTUATIONS OF HPCI WAS 13 AND A CONSERVATIVE ANALYSIS IADICATED THE USAGE FACTOR FOR ALL AFFECTED NOZZLES WAS LESS THAN 0.70.

[232] SUSQUEHANNA 1 DOCKET 50-387 LER 83-156 REV 1
 UPDATE ON SAFETY RELIEF VALVE ACOUSTIC MONITOR TRIP.
 EVENT DATE: 111083 REPORT DATE: 033084 NSSS: GE TYPE: BWR

(NSIC 190237) AT 1105 AND 1205 HRS ON 11-10-83, 0% POWER, OPERATING CONDITION 2, THE ACOUSTIC CHANNEL MONITORING SAFETY RELIEF VALVE (SRV) PSV-1F013B TRIPPED AND WAS RESET DURING 3 SEPARATE OCCURENCES RESULTING IN TECH SPEC 3.3.7.5, ACTION 80(B). THE 3RD TRIP RESULTED FROM CIRCUIT 1N OPERATION AND WOULD NOT RESET UNTIL THE CIRCUIT GAINS WERE READJUSTED. ON 12-4-83 THE CHANNEL FAILED; UNIT 1 WAS SHUT DOWN FOR THE TIE-IN OUTAGE WITH UNIT 2. PRIMARY SYSTEM INTEGRITY WAS MAINTAINED AND NO RELEASE OF RADIATION OCCURRED. ALL TRIPS WERE DUE TO SPURIOUS RESPONSES FROM THE MONITOR. THE 1ST AND 2ND TRIPS WERE RESET BY DE-ENERGIZING THE CHANNEL. AFTER REMOVAL AND REINSERTION OF THE CIRCUIT CARD FOR INSPECTION, THE CHANNEL TRIPPED AND WOULD NOT RESET. THE INPUT TERMINALS WERE CLEANED; THE GAINS CYCLED; THE CABLE AND CHARGE CONVERTER WERE REPLACED BY 1-27-84; THE CHANNEL CLEARED AND PROPER OPERATION WAS VERIFIED.

[233] SUSQUEHANNA 1 DOCKET 50-387 LER 83-165
 DIESEL GENERATOR TRIPS ON OVERVOLTAGE.
 EVENT DATE: 112883 REPORT DATE: 122883 NSSS: GE TYPE: BWR
 VENDOR: COOPER-BESSEMER CO.

(NSIC 190238) DURING SURVEILLANCE TESTING DG 'D' WAS DECLARED INOPERABLE DUE TO A GENERATOR OVERVOLTAGE ALARM/TRIP FROM STARTUP RESULTING IN LCO PER TECH SPEC 3.8.1.1. INVESTIGATIONS SHOWED THE GENERATOR VOLTAGE ADJUSTMENT WAS GREATER THAN 4250 VOLTS RESULTING IN THE ALARM/TRIP; GENERATOR VOLTAGE ADJUSTMENT WAS RESET TO 4250 VOLTS AND DG 'D' WAS RESTARTED. DURING THE EVENT 2 INDEPENDENT SOURCES REMAINED AVAILABLE TO THE CLASS 1E DISTRIBUTION SYSTEM, AND THE REMAINING 3 DIESEL GENERATOPS WERE OPERABLE. THE GENERATOR VOLTAGE ADJUSTMENT WAS NOT PROPERLY SET RESULTING IN THE GENERATOR OVERVOLTAGE ALARM/TRIP AT 4368 VOLTS; THE GENERATOR VOLTAGE ADJUSTMENT WAS RESET TO 4250 VOLTS AND DG 'D' WAS RESTARTED. THIS EVENT HAS BEEN PLACED ON THE SUPERVISOR OF OPERATIONS WEEKLY MEETING AGENDA

TO EMPHASIZE THE PROPER SETTING OF THE GENERATOR VOLTAGE ADJUSTMENT FOR PROPER DIESEL OPERATION.

[234] SUSQUEHANNA 1 DOCKET 50-387 LER 83-168 REV 1
 UPDATE ON SBTG VENT RADIATION MONITOR FAILS.
 EVENT DATE: 120983 REPORT DATE: 022884 NSSS: GE TYPE: BWR
 VENDOR: EBERLINE INSTRUMENT CORP.

(NSIC 189880) BETWEEN DEC 4 THRU 9, 1983, THE ALARMS/INDICATION/RECORDS FOR THE SAMPLE FLOW RATE OF THE STANDBY GAS TREATMENT VENT RADIATION MONITOR WAS LOST. A MICROPROCESSOR ANALYZING THE FLOW RATE DATA FAILED; THE WORD "NORMAL" WAS PRINTED FOR THE CHANNEL OUTPUT DURING EACH DAILY SURVEILLANCE. WHEN DISCOVERED, LCO PER TECH SPEC 3.3.7.11 WAS ENTERED, THE MICROPROCESSOR WAS REPLACED AND THE SYSTEM RETURNED TO SERVICE. DURING THE EVENT, SAMPLE FLOW WAS NOT LOST AND ALL OTHER AL/RMS/INDICATION/PRINTOUTS FUNCTIONED PROPERLY. THE CAUSE OF THIS EVENT WAS THE FAILURE OF THE MICROPROCESSOR, WHICH WAS REPLACED. THE DAILY SURVEILLANCE PROCEDURE IS BEING CHANGED TO GIVE THE OPERATOR MORE INFORMATION TO INTERPRET THE OUTPUT AND TO ENSURE THAT THE WORD "NORMAL" IS NOT RELIED UPON AS THE SOLE INDICATOR OF CHANNEL CONDITION.

[235] SUSQUEHANNA 1 DOCKET 50-387 LER 83-164 REV 2
 UPDATE ON POTENTIAL OVERLOAD OF CRD CLAMPS.
 EVENT DATE: 122183 REPORT DATE: 052184 NSSS: GE TYPE: BWR

(NSIC 190096) TEST PERFORMED BY TELEDYNE, REQUESTED BY PP&L, INDICATED THE 3-WAY CLAMPS ON THE CRD INSERT AND WITHDRAWAL LINES MAY NOT BE ABLE TO WITHSTAND WORST CASE AXIAL WATER HAMMER LOADS. LCO PER TECH SPEC 3.1.2.1.C WAS ENTERED TO PREVENT ROD MOVEMENT IN ORDER TO RESTRAIN LOADS ON THE LINES. A REVIEW OF DESIGN/AS-BUILT INFORMATION REVEALED ADDITIONAL SUPPORTS OUTSIDE CONTAINMENT REQUIRING DESIGN DRAWING/HANGER MODIFICATIONS. MODIFICATION TO CRD INSERT/WITHDRAWAL LINE SUPPORTS IN CONTAINMENT RESULTED FROM TELEDYNE ANALYSIS BASED ON NEWLY DEFINED HYDRODYNAMIC LOADS. MODIFICATIONS TO DESIGN DRAWINGS AND SUPPORTS OUTSIDE CONTAINMENT WERE A RESULT OF CHANGES IN CRD INSTALLERS LOADS DURING UNIT 1 CONSTRUCTION; AND REANALYSIS USING NEWLY DEFINED HYDRODYNAMIC LOADS.

[236] SUSQUEHANNA 1 DOCKET 50-387 LER 84-001 REV 1
 UPDATE ON H2O2 ANALYZER CATALYST NOT SUITED FOR POST ACCIDENT ENVIRONMENT.
 EVENT DATE: 010384 REPORT DATE: 040984 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: SUSQUEHANNA 2 (BWR)
 VENDOR: COMSIP CUSTOM LINE CORP.

(NSIC 190260) THE H2O2 ANALYZERS IN THE CONTAINMENT ATMOSPHERE MONITORING SYSTEM WERE DECLARED INOPERABLE BASED ON INFORMATION SUPPLIED BY THE VENDOR (COMSIP INC.). UNIT 1 WAS SHUT DOWN FOR A TIE-IN OUTAGE WITH UNIT 2, WHICH IS UNDER CONSTRUCTION, WHEN THE CONDITION WAS IDENTIFIED TO THE PLANT STAFF. ERRORS MADE BY COMSIP DURING THE DESIGN OF THE CATALYSTS RESULTED IN THE CATALYSTS NOT BEING CAPABLE OF WITHSTANDING THE IODINE CONCENTRATION THAT WOULD EXIST IN THE CONTAINMENT OF A 3000 MEGAWATT THERMAL REACTOR UNDER THE WORST CONDITIONS. COMSIP HAS SUBSEQUENTLY DEVELOPED A MODIFIED CATALYST CAPABLE OF OPERATING UNDER THE WORST CASE CONDITIONS. H2O2 ANALYZERS IN THE CONTAINMENT ATMOSPHERE MONITORING SYSTEM FOR UNITS 1 AND 2 HAVE BEEN SUPPLIED WITH THE NEWLY MODIFIED CATALYSTS. THE TIME REQUIRED TO STABILIZE AND CALIBRATE THE ANALYZERS HAS INCREASED FROM 5 MINS TO 8 HRS, AND 5 MINS TO 45 MINS RESPECTIVELY. NEITHER CHANGE AFFECTS THE SAFE OPERATION OF THE SUSQUEHANNA NUCLEAR STATION. THE APPLICABLE PROCEDURES HAVE BEEN MODIFIED TO REFLECT THE CHANGES IN H2O2 ANALYZER STABILIZATION AND CALIBRATION TIMES. UNIT 1 WAS SHUT DOWN FOR THE TIE-IN OUTAGE WITH UNIT 2 WHEN THE MODIFICATION TO THE ANALYZERS WAS IDENTIFIED AND PERFORMED.

[237] SUSQUEHANNA 1 DOCKET 50-387 LER 84-002 REV 1
 UPDATE ON EMERGENCY SERVICE WATER SPRAY NETWORKS IN DEGRADED CONDITION.
 EVENT DATE: 010684 REPORT DATE: 022884 NSSS: GE TYPE: BWR
 VENDOR: JAMES BURY CORP.
 SPRAY ENGINEERING COMPANY

(NSIC 190261) BECAUSE THE 'B1' EMERGENCY SERVICE WATER (ESW) SPRAY NETWORK INLET VALVE WAS LEAKING PAST ITS SEAT, THE 'B1' SPRAY RISERS COULD NOT BE PUMPED DOWN. TO PREVENT THE WATER IN THE RISERS FROM FREEZING, THE APPROPRIATE ESW PUMPS (B/D) WERE RUN INTERMITTENTLY, DISCHARGING THROUGH THE 'B' NETWORK. ICE FORMATION ON THE SPRAY NOZZLES CAUSED SOME SPRAY DISTRIBUTION ARMS TO BREAK OFF OF THE RISER ASSEMBLIES. INVESTIGATION SHOWED THAT THERE WAS MINIMAL THREAD ENGAGEMENT BETWEEN THE DISTRIBUTION ARM COUPLING AND RISER NIPPLE FOR MOST DISTRIBUTION ASSEMBLIES. THE DISTRIBUTION ARMS WERE WELDED TO THE DISTRIBUTION ARM COUPLING AND THE COUPLING WELDED TO THE RISER NIPPLE FOR ALL ASSEMBLIES. PROCEDURAL CHANGES AND A PREVENTIVE MAINTENANCE ACTIVITY WILL BE IMPLEMENTED WHICH WILL PREVENT RECURRENCE OF THIS EVENT.

[238] SUSQUEHANNA 1 DOCKET 50-387 LER 84-003 REV 1
 UPDATE ON CIRCUIT ISOLATORS PROVIDE INSUFFICIENT ISOLATION.
 EVENT DATE: 010684 REPORT DATE: 041084 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: SUSQUEHANNA 2 (BWR)
 VENDOR: TECHNOLOGY FOR ENERGY CORP.

(NSIC 190262) DURING THE UNIT 1 - UNIT 2 TIE-IN OUTAGE A DESIGN REVIEW SUSPECTED TWENTY-SEVEN SIGNAL ISOLATORS PURCHASED FROM THE TECHNOLOGY FOR ENERGY CORPORATION OF NOT PROVIDING ADEQUATE ELECTRICAL ISOLATION BETWEEN CLASS 1E AND NON 1E CIRCUITS. SPECIFICALLY, THE POWER SUPPLY AND OUTPUT OF THE SIGNAL ISOLATOR IS CONNECTED THRU THE ISOLATOR; THIS CAN POTENTIALLY RESULT IN THE FAULTING OF A CLASS 1E SOURCE OF POWER SHOULD AN ELECTRICAL FAULT OCCUR IN THE ISOLATOR'S SIGNAL OUTPUT CIRCUITRY. OF THE 27 ISOLATORS, 15 WERE INSTALLED IN UNIT 2 FOR WHICH A REPORT (PLA-2089) HAS BEEN SUBMITTED TO THE NRC. ONE OF THE 27 WAS LOCATED IN STORAGE. ELEVEN WERE INSTALLED IN UNIT 1; 6 WERE INSTALLED IN THE AVERAGE POWER RANGE MONITORING SYSTEM (APRMS); 4 WERE INSTALLED IN THE EMERGENCY SERVICE WATER SYSTEM, AND ONE WAS LOCATED IN THE HPCI CIRCUITRY. THE TEC ISOLATORS AT UNIT 2 PRESENT NO IMMEDIATE SAFETY CONCERNS SINCE, AT THE TIME, UNIT 2 WAS NOT YET LICENSED. ALL 11 ISOLATORS AT UNIT 1 PRESENT NO SAFETY CONCERN SINCE ALL ARE EITHER SUPPLIED WITH NON 1E POWER SOURCES OR REMAIN DISCONNECTED FROM THEIR POWER SOURCES AT THIS TIME.

[239] SUSQUEHANNA 1 DOCKET 50-387 LER 84-018
 REACTOR RECIRCULATION PUMP DISCHARGE VALVE STEM GALLING.
 EVENT DATE: 030384 REPORT DATE: 051584 NSSS: GE TYPE: BWR
 VENDOR: ATLAS CORP.

(NSIC 189683) DURING THE PERFORMANCE OF SURVEILLANCE NO-164-001, "RECIRCULATION PUMP DISCHARGE VALVE AND BYPASS OPERABILITY TEST," ON MAR 3, 1984 PRIOR TO UNIT 1 RESTART, RECIRCULATION DISCHARGE VALVE 1F031B FAILED TO OPERATE. AS A RESULT, UNIT 1 WAS COOLED DOWN AND THE VALVE WAS DISASSEMBLED. INSPECTION SHOWED THAT THE VALVE'S STEM WAS BINDING WITH THE UPPER AND INTERMEDIATE PACKING GLANDS UPON STROKING. THE GALLING OF THE VALVE'S STEM WAS EXTENSIVE, REQUIRING IT TO BE REPLACED. THE UPPER AND INTERMEDIATE PACKING GLANDS WERE MACHINED TO ALLOW GREATER TOLERANCE BETWEEN THE STEM AND GLANDS. ALIGNMENT BETWEEN THE NEW STEM AND THE PACKING GLANDS WAS ASSURED BY VERIFYING PROPER CLEARANCE UTILIZING FEEDER GAUGES AT THE TIME THE PACKING GLANDS WERE INSTALLED. SIMILAR SUCTION AND DISCHARGE VALVES ON THE RECIRCULATION LOOPS FOR BOTH UNITS 1 AND 2 WERE INSPECTED AND PROPER PACKING GLAND-STEM CLEARANCE ADJUSTMENTS PERFORMED. UNIT 1 REMAINED SHUT DOWN DURING THIS EVENT; PRIMARY SYSTEM INTEGRITY WAS MAINTAINED AND NO RELEASE OF RADIATION OCCURRED.

[240] SUSQUEHANNA 1 DOCKET 50-387 LER 84-014
 TRANSFORMER TRIP CAUSES CREOASS AND SBTG INITIATION.
 EVENT DATE: 030584 REPORT DATE: 040584 NSSS: GE TYPE: BWR
 OTHER UNITS INVOLVED: SUSQUEHANNA 2 (BWR)

(NSIC 189449) AT 1315 HRS ON 3/5/84 WITH UNIT 1 SHUTDOWN AND UNIT 2 IN PRE-OPERATIONAL TESTING, TRANSFORMER T20, ONE OF TWO OFF-SITE SOURCES OF POWER, TRIPPED RESULTING IN ISOLATION OF REACTOR BUILDING VENTILATION ZONES II AND III (UNIT 2 REACTOR BUILDING AND THE COMMON UNIT REFUELING AREAS) AND THE INITIATION OF CREOASS AND SBTG. ALSO DURING THIS EVENT, THE MOTOR OPERATED AIR BREAKER (MOAB) FOR T20 FAILED TO OPEN AND A PORTION OF THE COMMONWEALTH PHONE SYSTEM ON THE SOUTH PERIPHERY OF UNIT 2 WAS LOST. INVESTIGATIONS REVEALED THAT THE LIKELY CAUSE FOR T20 TO TRIP WAS DUE TO THE MOMENTARY CLOSURE OF RELAY CONTACTS IN THE TRANSFORMER HIGH SPEED GROUND SWITCH (HSGS) CONTROL CIRCUIT, THOUGHT TO BE CAUSED BY AN EMPLOYEE BUMPING THE CABINET CONTAINING THE RELAY'S CONTACTS, CAUSING THE HSGS TO CLOSE. THE CAUSE FOR THE MOAB NOT OPERATING WAS ATTRIBUTED TO LOOSE SET SCREWS IN AUXILIARY CONTACTS IN THE HSGS. DURING THE EVENT, HSGS RED LIGHT INDICATION IN THE CONTROL ROOM FAILED TO OPERATE DUE TO THE SAME PROBLEM. T20 TRIPPING CAUSED A MOMENTARY LOSS OF POWER TO RADIATION MONITORS IN ZONES II AND III RESULTING IN AN ISOLATION OF THOSE ZONES AND HENCE, INITIATION OF CREOASS AND SBTG. SYSTEM ALIGNMENT WAS RESTORED UPON A LOAD TRANSFER TO T10, THE ALTERNATE OFF-SITE SOURCE OF POWER. COMMUNICATIONS WITH NRC WERE NOT INTERRUPTED DURING THE EVENT. PRIMARY SYSTEM INTEGRITY WAS MAINTAINED AND NO RELEASE OF RADIATION OCCURRED.

[241] SUSQUEHANNA 1 DOCKET 50-387 LER 84-022
 SPURIOUS ACTUATION OF TURBINE BUILDING SPING FLUSH.
 EVENT DATE: 033184 REPORT DATE: 043084 NSSS: GE TYPE: BWR
 VENDOR: EBERLINE INSTRUMENT CORP.

(NSIC 189685) AT 0732 HRS ON 3/31/84 WITH UNIT 1 AT FULL POWER AN NPO ON ROUNDS FOUND PURGE FLOW, AND AT THE SAME TIME, THE TURBINE BLDG SPING LOCAL PANEL INDICATING THE PURGE MODE OF OPERATOR ALARMS OCCURRED IN THE PRINTOUT OF THE CONTROL TERMINAL IN THE CONTROL ROOM. AN LCO WAS ENTERED PER TECH SPEC SECTION 3.3.7.11. IMMEDIATE CORRECTIVE ACTION WAS TAKEN BY RESETTING THE PURGE AND ENSURING THAT NORMAL SAMPLE FLOW WAS ESTABLISHED. INVESTIGATION INDICATES THE TURBINE BLDG SPING PURGE COMMAND WAS NOT ENTERED AT EITHER THE LOCAL OR REMOTE CONTROL CONSOLES NOR WAS THERE ANY REASON TO BELIEVE THAT THE COMMAND WAS INITIATED BY DEPRESSING THE PURGE PUSH BUTTON ON THE LOCAL SPING PANEL. DISCUSSION WITH THE SPING VENDOR, EBERLINE CORPORATION, INDICATES THAT A FLUCTUATION IN THE INPUT VOLTAGE TO THE SPING'S AUTO PURGE OPTION MAY CAUSE A SPURIOUS 'PURGE' COMMAND. IN AN ATTEMPT TO PREVENT A RECURRENCE OF THIS EVENT, A PULL UP RESISTOR IS BEING ADDED TO THE SPING'S AUTO PURGE INPUT CIRCUIT THAT WILL HAVE THE EFFECT OF MAINTAINING A CONSTANT INPUT VOLTAGE AND THUS ELIMINATING THE POSSIBILITY OF A SPURIOUS SPING PURGE. OPERATOR AWARENESS IDENTIFIED THE OCCURRENCE OF THIS EVENT AND RESULTED IN THE SPING BEING RETURNED TO SERVICE IN APPROXIMATELY 44 MIN.

[242] SUSQUEHANNA 1 DOCKET 50-387 LER 84-023
 HIGH SODIUM PENTABORATE CONCENTRATION IN SBLC TANK.
 EVENT DATE: 040484 REPORT DATE: 050484 NSSS: GE TYPE: BWR

(NSIC 189741) ON APR 4, 1984, THE 31-DAY CHEMISTRY SURVEILLANCE OF THE UNIT 1 STANDBY LIQUID CONTROL (SBLC) SYSTEM INDICATED THAT THE SODIUM PENTABORATE (NA2B10) CONCENTRATION IN THE SBLC TANK WAS 14.33%. THIS VALUE IS ABOVE THE TECH SPEC LIMIT FOR THE TANK VOLUME AT THE TIME OF SAMPLING. DEMINERALIZED WATER WAS ADDED AND THE TANK AIR SPARGED FOR APPROX. 1 HR. THE SOLUTION WAS RETESTED AND THE FINAL NA2B10 CONCENTRATION WAS WITHIN TECH SPEC LIMITS.

[243] SUSQUEHANNA 1 DOCKET 50-387 LER 84-019
 INADVERTENT ENGINEERED SAFETY FEATURE ACTUATION OCCURS.
 EVENT DATE: 041584 REPORT DATE: 051584 NSSS: GE TYPE: BWR

(NSIC 189684) ON APR 15, 1984, IN ACCORDANCE WITH THE STATION'S APPROVED PERSONNEL PROTECTION PROCEDURE, OPERATION'S PERSONNEL REMOVED 2 FUSES ASSOCIATED WITH UNIT 2 PRIMARY CONTAINMENT ISOLATION LOGIC BECAUSE OF WORK BEING DONE TO INCORPORATE AN APPROVED MODIFICATION INTO THE LOGIC CIRCUITRY. DUE TO A BYPASS JUMPER WHICH HAD BEEN INCORRECTLY INSTALLED BY CONSTRUCTION PERSONNEL, THE FUSE REMOVAL CAUSED A FALSE HIGH DRYWELL PRESSURE SIGNAL. THIS RESULTED IN ACTUATION OF THE COMMON CONTROL ROOM EMERGENCY OUTSIDE AIR SUPPLY SYSTEM AND STANDBY GAS TREATMENT SYSTEM. THESE SYSTEMS ARE ENGINEERED SAFETY FEATURES. THE FUSES WERE REINSTALLED AND EQUIPMENT RETURNED TO ITS NORMAL STATUS. THE JUMPER WAS SUBSEQUENTLY INSTALLED PROPERLY AND THE MODIFICATION COMPLETED.

[244] SUSQUEHANNA 1 DOCKET 50-387 LER 84-025
 TWO MAIN TURBINE SURVEILLANCES COMPLETED LATE.
 EVENT DATE: 043084 REPORT DATE: 053084 NSSS: GE TYPE: BWR

(NSIC 190263) THE WEEKLY SUPVEILLANCE OPERABILITY TESTS OF THE MAIN TURBINE BYPASS VALVES AND THE MAIN TURBINE OVERSPEED PROTECTION SYSTEM VALVES WERE COMPLETED APPROX. 5 HRS LATE. A MEMO HAS BEEN SENT TO SHIFT SUPERVISION EMPHASIZING THE IMPORTANCE OF REVIEWING SURVEILLANCE SCHEDULES ON A SHIFTLY BASIS.

[245] SUSQUEHANNA 2 DOCKET 50-388 LER 84-001
 RPS ACTUATES ON SPURIOUS IRM SIGNAL.
 EVENT DATE: 040584 REPORT DATE: 050484 NSSS: GE TYPE: BWR
 VENDOR: GENERAL ELECTRIC CO.

(NSIC 189742) ON APR 5, 1984, DURING INITIAL FUEL LOAD, THE UNIT EXPERIENCED A REACTOR PROTECTION SYSTEM ACTUATION ON A SPURIOUS SIGNAL FROM INTERMEDIATE RANGE MONITOR CHANNEL 'D'. THE CHANNEL'S VOLTAGE PREAMPLIFIER WAS REPLACED AND THE CHANNEL HAS WORKED PROPERLY SINCE.

[246] SUSQUEHANNA 2 DOCKET 50-388 LER 84-003
 REACTOR SCRAMS SIX TIMES DUE TO A SPURIOUS IRM SIGNAL.
 EVENT DATE: 040984 REPORT DATE: 050984 NSSS: GE TYPE: BWR

(NSIC 189744) ON APR 9, 1984 UNIT 2 EXPERIENCED SIX SCRAMS WITHIN APPROX. 1 HR. NO UPSCALE TRIP LAMPS FOR THE ASSOCIATED NUCLEAR INSTRUMENTATION CHANNELS WERE LIT. (THE UPSCALE TRIP LAMPS LATCH AND MUST BE MANUALLY RESET AT THE DRAWER.) IT HAS BEEN CONCLUDED THAT AN INTERMITTENT FAULT IN THE INOPERATIVE TRIP CIRCUITS FOR ONE OR MORE OF THE ASSOCIATED NUCLEAR INSTRUMENTATION CHANNELS (THIS FUNCTION AUTOMATICALLY RESETS) WAS THE CAUSE OF THE SCRAMS. THE WEEKLY FUNCTIONAL TESTS HAVE BEEN SATISFACTORILY PERFORMED SINCE THIS EVENT.

[247] SUSQUEHANNA 2 DOCKET 50-388 LER 84-002
 CORE ALTERATIONS PERFORMED WITH SRM CHANNEL 'A' INOPERABLE.
 EVENT DATE: 041084 REPORT DATE: 051084 NSSS: GE TYPE: BWR
 VENDOR: GEN ELECTRIC SUPPLY CO

(NSIC 189743) AT 0145 HRS ON 4/11/84 DURING THE INITIAL FUEL LOAD OF UNIT 2, A PLANT CONTROL OPERATOR (PCO) DISCOVERED SOURCE RANGE MONITOR (SRM) CHANNEL 'A', 1 OF 4 SOURCE RANGE MONITORING CHANNELS FOR THE CORE, IN BYPASS. A LIMITING CONDITION FOR OPERATION (LCO) PRECLUDING ANY CORE ALTERATIONS WAS ENTERED PER TECH SPEC 3.9.2(C). SOURCE RANGE MONITOR 'A' WAS PLACED IN BYPASS AT 1245 HRS ON 4/10/84 WHILE ATTEMPTING TO TRANSFER CORE NEUTRON MONITORING FROM FUEL LOAD

CHAMBER (FLC) 'A' TO SOURCE RANGE DETECTOR 'A'. BY 1505 TECHNICIANS DETERMINED SOURCE RANGE DETECTOR 'A' COULD NOT BE CALIBRATED DUE TO A FAULTY CABLE BETWEEN THE DETECTOR AND ITS PREAMPLIFIER; FLC 'A' WAS RECONNECTED TO THE MONITOR OF SOURCE RANGE CHANNEL 'A'. INSTRUMENT RESPONSE VERIFICATION WAS COMPLETED BY 1615 HRS; THE CHANNEL 'A' BYPASS SWITCH, HOWEVER, WAS NOT RESTORED TO ITS NORMAL POSITION. AT 1830 HRS THE PCO PERFORMED SURVEILLANCE SO-200-006 "SHIFTLY SURVEILLANCE OPERATING LOG" AND NOTED THE 'A' SRM WAS BYPASSED BUT CAME TO THE CONCLUSION THAT 'A' FLC WAS IN SERVICE. WHILE CHANNEL 'A' REMAINED IN BYPASS, 1 WATCH RELIEF AND 1 SHIFT TURNOVER OCCURRED AT 1900 AND 2330 HRS, RESPECTIVELY. AT 0147 HRS ON 4/11/84 CORE ALTERATIONS WERE HALTED AND THE CHANNEL 'A' SRM BYPASS WAS REMOVED.

[248] THREE MILE ISLAND 2 DOCKET 50-320 LER 83-064
 MINOR REPAIRS REQUIRED ON DIKES.
 EVENT DATE: 110283 REPORT DATE: 041184 NSSS: BW TYPE: PWR
 OTHER UNITS INVOLVED: THREE MILE ISLAND 1 (PWR)

(NSIC 189873) THE SEMI-ANNUAL DIKE INSPECTION COMPLETED ON NOV 2, 1983, IDENTIFIED TWO AREAS OF MINOR DIKE DEGRADATION. DEPRESSIONS WERE FOUND IN THE WEST AND SOUTH DIKES. EXCESS VEGETATION WAS FOUND ON THE EAST AND WEST DIKES. THIS EVENT HAD NO EFFECT ON EITHER UNIT AT THREE MILE ISLAND. THE DIKE DEGRADATION WAS DUE TO NATURAL CAUSES. REPAIRS TO THE DIKE SYSTEM WERE COMPLETED ON DEC 14, 1983.

[249] TROJAN DOCKET 50-344 LER 84-006
 REACTOR TRIP AND MAIN STEAM CHECK VALVE FAILURE.
 EVENT DATE: 042784 REPORT DATE: 052584 NSSS: WE TYPE: PWR
 VENDOR: ATWOOD & MORRILL CO., INC.

(NSIC 189962) ON APR 27, 1984 AT 6:27 PM, AN AUTOMATIC REACTOR TRIP OCCURRED DUE TO 'C' STEAM GENERATOR 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 NON-RETURN CHECK VALVES HAD FAILED TO CLOSE. THE VALVES WERE CLOSED MANUALLY AND WILL BE MODIFIED DURING THE 1984 REFUELING OUTAGE TO PREVENT RECURRENCE.

[250] TROJAN DOCKET 50-344 LER 84-008
 MISSED SURVEILLANCE FOR SEALED RADIOACTIVE SOURCES.
 EVENT DATE: 042784 REPORT DATE: 052984 NSSS: WE TYPE: PWR

(NSIC 189673) DURING THE PERFORMANCE OF A QUALITY ASSURANCE AUDIT ON APR 27, 1984 IT WAS DISCOVERED THAT THE TECH SPEC PERIODIC SURVEILLANCE REQUIREMENT FOR LEAKAGE TESTING OF 8 SEALED SOURCES CONTAINING MIXED ISOTOPE RADIOACTIVE MATERIAL WAS NOT MET. TECH SPEC 3.7.7.1 REQUIRES THAT EACH SEALED SOURCE CONTAINING RADIOACTIVE MATERIAL IN EXCESS OF THOSE QUANTITIES SPECIFIED IN 10 CFR 30.71 OR GREATER THAN 0.1 MICROCURIE OF OTHER MATERIAL BE TESTED FOR LEAKAGE EVERY SIX MONTHS. THE CAUSE OF THIS EVENT WAS PERSONNEL ERROR BY THE RADIATION PROTECTION TECHNICIAN AND THE SUPERVISOR REVIEWING THE SOURCE RECEIPT INFORMATION. FOLLOWING DISCOVERY OF THIS ERROR, THE SEALED SOURCES WERE TESTED FOR LEAKAGE AND FOUND TO MEET THE LIMITS OF TECH SPEC 3.7.7.1. RADIATION PROTECTION PROCEDURE RP-108, "SEALED SOURCE CONTROL AND HANDLING PROCEDURE," IS BEING REVISED TO ENSURE THE ACTIVITY OF ALL ISOTOPES IN MIXED STANDARDS ARE CORRECTLY CALCULATED AND COMPARED TO THE TECH SPEC LIMIT.

[251] TROJAN DOCKET 50-344 LER 84-007
 INADVERTENT SAFETY INJECTION ACTUATION FROM LIFTING INCORRECT ELECTRICAL LEADS.
 EVENT DATE: 042884 REPORT DATE: 052284 NSSS: WE TYPE: PWR

(NSIC 189730) DURING PERFORMANCE OF A PERIODIC SURVEILLANCE TEST, POT-2-5, AT 1624 ON APRIL 28, 1984 A SPURIOUS SAFETY INJECTION ACTUATION OCCURRED FROM INADVERTENT ACTUATION OF TWO CONTAINMENT HIGH PRESSURE BISTABLES. THE TEST REQUIRED ELECTRICAL LEADS TO BE LIFTED ON TWO REFUELING WATER STORAGE TANK (RWST) LEVEL BISTABLES TO ALLOW THE INJECTION OF TEST SIGNALS FOR AN ANNUAL SURVEILLANCE TEST. THE TECHNICIAN PERFORMING THIS TEST INADVERTENTLY LIFTED THE POWER LEADS FOR TWO OF THE BISTABLE FORM 'C' CONTACTS ON THE RWST LEVEL SWITCHES. SINCE EACH OF THESE RWST BISTABLE CONTACTS SHARE A COMMON POWER SUPPLY LOOP WITH AN ASSOCIATED CONTAINMENT HIGH PRESSURE TRANSMITTER, TWO OUT OF THREE CONTAINMENT HIGH PRESSURE BISTABLES ACTUATED TO PROVIDE THE COINCIDENCE FOR A SAFETY INJECTION. AT THE TIME OF THE EVENT THE PLANT WAS IN MODE 3, HOT STANDBY, WITH RCS TEMPERATURE AT 525F AND RCS PRESSURE AT 2230 PSIG. THIS WAS THE TENTH ACTIVATION OF THE ECCS AND IS REPORTED IN ACCORDANCE WITH TECH SPEC 6.9.2. THE NRC WAS NOTIFIED OF THIS EVENT IN ACCORDANCE WITH 10 CFR 50.72(B)(2)(II). THE CAUSE OF THIS EVENT WAS PERSONNEL ERROR CAUSED IN PART BY A PROCEDURAL DEFICIENCY. THE RWST LEVEL BISTABLES HAVE AN UNUSUAL TERMINAL BOARD CONFIGURATION WHICH CONTRIBUTED TO THE TECHNICIAN'S LIFTING THE INCORRECT LEADS. IN ADDITION, THE PERIODIC SURVEILLANCE PROCEDURE DID NOT SPECIFICALLY LIST WHICH LEADS SHOULD BE LIFTED. THIS PROCEDURE IS BEING REVISED.

[252] TROJAN DOCKET 50-344 LER 84-009
 FAILURE OF CONTAINMENT LOW RANGE NOBLE GAS DETECTOR.
 EVENT DATE: 042984 REPORT DATE: 052984 NSSS: WE TYPE: PWR
 VENDOR: VICTOREEN INSTRUMENT DIVISION

(NSIC 189674) A CONTAINMENT PROCESS EFFLUENT AND RADIATION MONITOR (PERM-1C) WHICH MEASURES CONTAINMENT AIR NOBLE GAS (LOW RANGE) AND PROVIDES AUTOMATIC ISOLATION OF CONTAINMENT PURGE AND VENTILATION ON HIGH RADIATION LEVELS WAS FOUND TO BE INOPERABLE DURING CONTROL ROOM ROUTINE SURVEILLANCE. THE CONTAINMENT ATMOSPHERE HAD BEEN VENTED TO THE ENVIRONMENT EARLIER WHILE THE PERM WAS INOPERABLE IN VIOLATION OF TECH SPEC 3.3.3.1, 3.6.3.1, 3.3.2.1, AND TABLE 4.3-2. THE CAUSE OF THE MALFUNCTION WAS DETERMINED TO BE IMPROPER MAKEUP OF ELECTRICAL CONTACTS DUE TO CONTACT OXIDATION IN THE PERM CONTROL SWITCH WHICH PREVENTED PROPER SWITCH OPERATION TO SAMPLE THE EXHAUST DUCTING DURING CONTAINMENT ATMOSPHERE DISCHARGE. THE CONTROL SWITCH WAS SUBSEQUENTLY CYCLED AND OPERATED PROPERLY.

[253] TURKEY POINT 3 DOCKET 50-250 LER 84-014
 REACTOR TRIP DUE TO LOSS OF POWER TO A VITAL PANEL.
 EVENT DATE: 042484 REPORT DATE: 052484 NSSS: WE TYPE: PWR

(NSIC 189651) ON 4/24/84, A REACTOR TRIP OCCURRED. THE ROOT CAUSE WAS DETERMINED TO STEM FROM A PERSONNEL ERROR THAT PROPAGATED INTO THE REACTOR TRIP. A TURBINE OPERATOR (TO) TAKING THE 'A' "STANDBY" (AS) STATIC INVERTER OUT OF SERVICE ERRONEOUSLY OPENED THE OUTPUT BREAKER OF AN ADJACENT "NORMAL" (3A) STATIC INVERTER THAT WAS IN SERVICE SUPPLYING POWER TO A VITAL PANEL. LOSS OF POWER TO THE VITAL PANEL RESULTED IN A TURBINE RUNBACK. UPON REALIZING HIS ERROR, THE TO RECLOSED THE 3A INVERTER'S OUTPUT BREAKER. HOWEVER, DUE TO THE CURRENT SURGE ASSOCIATED WITH INSTANTANEOUSLY PICKING UP ALL OF THE LOADS, COUPLED WITH AN INSTRUMENT POWER SUPPLY FAILURE IN A RACK POWERED BY THE 3A INVERTER, A CURRENT LIMITER IN THE 3A INVERTER CAUSED ITS OUTPUT VOLTAGE TO GO LOW. A SECOND TURBINE RUNBACK OCCURRED WHEN THE 3A INVERTER'S OUTPUT VOLTAGE WENT LOW AND RESULTED IN A REACTOR TRIP. ALL EQUIPMENT FUNCTIONED AS DESIGNED ON INITIATION OF THE ENGINEERED SAFETY FEATURE ACTUATION SIGNAL (ESFAS) GENERATED IN THE REACTOR PROTECTION SYSTEM (RPS). SIMILAR OCCURRENCES: LER 250-84-003.

[254] TURKEY POINT 3 DOCKET 50-250 LER 84-016
 ISOTOPIC ANALYSIS FOR IODINES NOT PERFORMED ON TIME.
 EVENT DATE: 051384 REPORT DATE: 061284 NSSS: WE TYPE: PWR

(NSIC 190101) ON MAY 13, 1984, AN ISOTOPIC ANALYSIS FOR IODINES IN THE REACTOR COOLANT SYSTEM (RCS) WAS NOT PERFORMED WITHIN THE TIME INTERVAL REQUIRED BY TECH SPECS. THE ROOT CAUSE HAS BEEN DETERMINED TO STEM FROM INADEQUATE COMMUNICATIONS BETWEEN OPERATIONS AND CHEMISTRY PERSONNEL THAT RESULTED IN THE RCS SAMPLES BEING OBTAINED APPROX. 1 HR TOO EARLY. IMMEDIATE CORRECTIVE ACTIONS INCLUDED DISCUSSIONS WITH PLANT PERSONNEL DURING EFFORTS TO DETERMINE THE ROOT CAUSE OF THE OCCURRENCE, ADDITIONAL TRAINING OF CHEMISTRY PERSONNEL ON THE APPLICABLE NUCLEAR CHEMISTRY PROCEDURE, ESTABLISHMENT OF A NEW METHOD FOR DETERMINING THE NEED TO PERFORM SAMPLING AND ISOTOPIC ANALYSIS FOR IODINES IN THE RCS AND AN INCREASED EMPHASIS TO BOTH OPERATIONS AND CHEMISTRY PERSONNEL TO MAINTAIN AN AWARENESS OF TECH SPEC REQUIREMENTS AND THEIR FULFILLMENT. LONG TERM CORRECTIVE ACTIONS WILL CONSIDER THE POSSIBILITY OF PROVIDING AN INTEGRATED POWER METER WITH ALARM CAPABILITIES. THE SPECIFIC ACTIVITY OF THE RCS, INCLUDING IODINES, DID NOT EXCEED THE LIMITS DEFINED IN THE TECH SPEC. SIMILAR OCCURRENCES: LER 251-83-019.

[255] VERMONT YANKEE DOCKET 50-271 LER 84-001 REV 1
 UPDATE ON REACTOR TRIP DUE TO PRESSURE TRANSIENT.
 EVENT DATE: 010584 REPORT DATE: 022784 NSSS: GE TYPE: BWR
 VENDOR: GLESNER INDUSTRIAL SUPPLY
 ROSEMOUNT, INC.

(NSIC 190104) AS A RESULT OF AN INSTABILITY IN THE TURBINE CONTROL SYSTEM, A PRESSURE TRANSIENT WAS GENERATED WHICH RESULTED IN A REACTOR TRIP. THE REACTOR TRIP OCCURRED AT 1042 PSIG AND RESULTED IN A PRESSURE DECREASE TO 847 PSIG WHERE A GROUP 1 PCIS ISOLATION OCCURRED. REACTOR LEVEL THEN DECREASED TO A LEVEL OF 122 INCHES, AS A RESULT OF THE ISOLATION, WHERE GROUPS 2, 3, 4 & 5 PCIS ISOLATIONS OCCURRED. LEVEL THEN RECOVERED TO A LEVEL OF 180 INCHES. AFTER SHUTDOWN, THE TURBINE CONTROL SYSTEM WAS INSPECTED AND TESTING WAS PERFORMED TO DETERMINE THE CAUSE OF THE PRESSURE TRANSIENT. SINCE THE MAIN FEED PUMP TRIP OCCURRED ABOVE THE REQUIRED VALUE, THE INSTRUMENTS WHICH PROVIDE THIS TRIP WERE CHECKED AND ONE CHANNEL WAS RECALIBRATED.

[256] VERMONT YANKEE DOCKET 50-271 LER 84-003
 ENVIRONMENTAL SAMPLING ANALYSIS NOT PERFORMED.
 EVENT DATE: 041284 REPORT DATE: 051184 NSSS: GE TYPE: SWR

(NSIC 189654) FOR THE PERIOD OF 3/13/84 TO 3/20/84, WEEKLY AIR PARTICULATE AND CHARCOAL SAMPLES WERE TAKEN AS REQUIRED BY TECH SPEC SEC. 4.9.D.2 AND TABLE 3.9.1. THE SAMPLES WERE PREPARED FOR SHIPMENT TO THE ANALYTICAL LABORATORY, BUT WERE NEVER RECEIVED. INVESTIGATION INDICATES THAT THE SAMPLES WERE MISTAKENLY DISCARDED AS RUBBISH. A REVIEW OF THE RECORDS FOR THE WEEKS PRIOR TO AND FOLLOWING THE MISSED ANALYSIS DID NOT REVEAL ANY REASON TO SUSPECT OTHER THAN NORMAL READINGS.

[257] VERMONT YANKEE DOCKET 50-271 LER 84-004
 REACTOR SCRAMS DUE TO MSIV CLOSURE.
 EVENT DATE: 041784 REPORT DATE: 051684 NSSS: GE TYPE: BWR
 VENDOR: NUMATICS

(NSIC 189655) AS A RESULT OF A MALFUNCTION OF THE PNEUMATIC PILOT VALVE ON MSIV-2-80C DURING BIWEEKLY PARTIAL CLOSURE TESTING, THE VALVE WENT COMPLETELY SHUT RESULTING IN A PRIMARY CONTAINMENT ISOLATION DUE TO HIGH STEAM FLOW IN THE REMAINING THREE STEAM LINES. THIS IN TURN CAUSED A REACTOR SCRAM DUE TO CLOSURE

OF THE MSIV'S. THE PNEUMATIC PILOT VALVE ASSEMBLY ON MSIV 2-80C WAS REPLACED, AND PROPER VALVE OPERATION VERIFIED.

[258] VERMONT YANKEE DOCKET 50-271 LER 84-005
 HPCI VALVE INOPERABLE.
 EVENT DATE: 042084 REPORT DATE: 052184 NSSS: GE TYPE: BWR

(NSIC 189704) ON 4/20/84, AT APPROXIMATELY 0445, THE OPERATORS WERE PERFORMING MONTHLY HPCI VALVE OPERABILITY. UPON STARTING THE AUXILIARY OIL PUMP, IT WAS OBSERVED THAT THE TRIP THROTTLE VALVE DID NOT OPEN. THE SCRO PUSHED THE HPCI HIGH WATER LEVEL RESET AT WHICH TIME THE VALVE OPENED. LATER THE OPERATORS REALIZED THAT A PROBLEM WITH HPCI OPERABILITY HAD EXISTED BETWEEN THE TIME OF THE LAST SCRAM ON 4/16/84 (REF. LER 84-04) AND WHEN THE RESET BUTTON WAS PUSHED ON 4/20/84. TO PREVENT REOCCURRENCE, A CHECK-OFF SHEET WILL BE ADDED TO THE STARTUP PROCEDURE, OP 0100 TO INSURE ALL REQUIRED SYSTEM RESETS HAVE BEEN RESET FOLLOWING ANY SHUTDOWN. AN ADDITIONAL STEP WILL BE ADDED TO THE SCRAM PROCEDURE, OP 3100, FINAL CONDITIONS, REQUIRING THE OPERATOR TO PUSH ALL RESET BUTTONS AS LISTED IN THE STARTUP PROCEDURE.

[259] WPPSS 2 DOCKET 50-397 LER 83-003 REV 1
 UPDATE ON FIRE DAMPERS FAIL TO MEET STANDARDS.
 EVENT DATE: 122283 REPORT DATE: 032884 NSSS: GE TYPE: BWR
 VENDOR: RUSKIN MANUFACTURING COMPANY

(NSIC 189881) A WALKDOWN WAS PERFORMED ON FIRE DAMPERS AND THOSE LISTED BELOW WERE FOUND WHICH DID NOT MEET UL FIRE RATING REQUIREMENTS, THUS VIOLATING TECH SPEC 3/4.7.7. THE SYSTEM REMAINED FULLY FUNCTIONAL EVEN THOUGH THE DAMPERS WERE NOT IN COMPLIANCE WITH UL STANDARDS. THUS POTENTIAL CONSEQUENCES WERE MINIMAL. DAMPER IDENTIFICATION: WMA-FD 1, -2, -3, -6, -7, -8, -9, -10, -11, -14, AND DRA-FD-34-1.

[260] WPPSS 2 DOCKET 50-397 LER 84-015
 LOSS OF DIVISION 1 CRITICAL 120V AC.
 EVENT DATE: 030784 REPORT DATE: 032184 NSSS: GE TYPE: BWR
 VENDOR: ELGAR, CORP.

(NSIC 189746) WHILE ATTEMPTING TO ISOLATE A GROUND ON THE DIVISION 1 DC BUS, THE OPERATOR SECURED THE SOURCE OF DC POWER TO THE DIVISION 1 INVERTER. THE OPERATOR HAD FIRST TRANSFERRED THE UPS LOAD TO THE ALTERNATE AC SOURCE. THE LOSS OF DC TO THE INVERTER RESULTED IN TRIPPING OF THE DC INPUT CIRCUIT BREAKER AND CLEARING OF THE DC INPUT FUSE. THE OPERATOR FAILED TO NOTE THAT THE INVERTER HAD TRIPPED AND PUSHED THE FORWARD TRANSFER PUSHBUTTON. THE INVERTER STATIC SWITCH TRANSFERRED TO THE INVERTER SOURCE WHICH RESULTED IN LOSS OF POWER TO THE DIVISION 1 INSTRUMENT POWER SUPPLY. THE PAZ RELAY CABINET RELAYS DEENERGIZED, RESULTING IN INADVERTENT ISOLATION.

[261] WPPSS 2 DOCKET 50-397 LER 84-026
 ACTIVATION OF PRE-ACTION AND DELUGE SYSTEMS.
 EVENT DATE: 032184 REPORT DATE: 041884 NSSS: GE TYPE: BWR

(NSIC 189747) AN IONIZATION DETECTOR WAS ACTIVATED AND TRIPPED A PRE-ACTION SYSTEM, WHICH STARTED THE FIRE PUMPS. THE ENSUING PRESSURE SURGE TRIPPED ANOTHER PRE-ACTION SYSTEM AND MOMENTARILY LIFTED 2 DELUGE VALVES FOR THE STANDBY GAS TREATMENT TRAINS A AND B, ONE OF WHICH DID NOT RESET PROPERLY. WATER CAUSED NO DAMAGE BECAUSE OPERATORS ISOLATED THE ONE SYSTEM WHICH DID NOT RESET PROPERLY. THE SYSTEMS WERE RESET AND TESTED AND PLACED IN SERVICE. PUMP PRESSURE START

SWITCHES WERE CHECKED, AND A DESIGN CHANGE REQUESTED TO EVALUATE MEANS OF MITIGATING THE PRESSURE SURGES ON PUMP STARTS.

[262] WPPSS 2 DOCKET 50-397 LER 84-027
 GROUNDS IN MSRV SOLENOIDS.
 EVENT DATE: 032284 REPORT DATE: 041884 NSSS: GE TYPE: BWR
 VENDOR: CORSBY VALVE & GAGE CO.

(NSIC 189748) GROUNDS ON THE 125V DC INSTRUMENT BUS WERE TRACED TO MAIN STEAM RELIEF SOLENOID VALVES MSRV-4B AND MSRV-3C. DURING THE STARTUP TEST PROGRAM, 5 MSRV SOLENOIDS WERE DETERMINED TO HAVE GROUNDS AND WERE REPLACED. AFTER CONSULTATION WITH GENERAL ELECTRIC, ALL INSTALLED MSRV SOLENOIDS, ACTIVE OR NOT, WERE TESTED FOR GROUNDING BY MEGGER. AFTER MEGGER TESTING, THE SOLENOID COIL RESISTANCE WAS MEASURED. EACH ACTIVE SOLENOID WAS CYCLED 10 TIMES AND A FINAL GROUND CHECK WAS PERFORMED. VOLTAGE SPIKE SUPPRESSION DIODES HAD BEEN INSTALLED ACROSS EACH SOLENOID CIRCUIT PRIOR TO THIS TESTING. 8 MORE SOLENOID GROUNDS WERE FOUND DUE TO THIS INVESTIGATION. THIS WAS REPORTED PURSUANT TO 10 CFR 50.72(B)(2)(III). THIS LER PROVIDES WRITTEN FOLLOW-UP PURSUANT TO 10 CFR 50.73(A)(2)(V)(D).

[263] WPPSS 2 DOCKET 50-397 LER 84-028
 UNSCHEDULED REACTOR PROTECTION SYSTEM ACTUATION.
 EVENT DATE: 032884 REPORT DATE: 042584 NSSS: GE TYPE: BWR

(NSIC 189686) ON 3/28/84, A REACTOR PROTECTION SYSTEM (RPS) UNSCHEDULED ACTUATION OCCURRED DUE TO SCRAM DISCHARGE VOLUME HIGH LEVEL. MAINTENANCE ACTIVITIES IN PROGRESS ON 3 CONTROL ROD DRIVE (CRD) HYDRAULIC CONTROL UNITS (HCU) REQUIRED VALVE LINEUPS WHICH SET UP A FLOW PATH FROM THE REACTOR PRESSURE VESSEL (RPV) TO THE SCRAM DISCHARGE VOLUME VIA THE CRD WITHDRAW LINES. ANOTHER MAINTENANCE ACTIVITY, ADDING A VACUUM BREAKER TO THE SCRAM DISCHARGE VOLUME, WAS IN PROGRESS AND THIS ACTIVITY REQUIRED A VALVE LINEUP THAT INCLUDED DANGER TAGGING SHUT THE DISCHARGE VOLUME VENT AND DRAIN VALVES. LEAKAGE FROM THE RPV TO THE ISOLATED DISCHARGE VOLUME FILLED THE DISCHARGE VOLUME UNTIL THE LEVEL SENSING INSTRUMENTS ACTUATED, CAUSING AN UNSCHEDULED RPS ACTUATION.

[264] WPPSS 2 DOCKET 50-397 LER 84-029
 DIESEL GENERATORS TESTED WITHOUT PRELUBE/WARMUP.
 EVENT DATE: 040984 REPORT DATE: 050384 NSSS: GE TYPE: BWR
 VENDOR: GENERAL MOTORS

(NSIC 189749) 04/19/84 - PERFORMED SURVEILLANCE ON #1 STANDBY DG (1A) WITHOUT PRELUBE/WARMUP IN VIOLATION OF TECH SPEC 4.8.1.1.2.A.4. 04/09/84 - PERFORMED SURVEILLANCE ON #2 STANDBY DG (1B) WITHOUT PRELUBE/WARMUP IN VIOLATION OF THE TECH SPEC 4.8.1.1.2.A.4. EVENTS ARE THE RESULT OF RECENT CHANGES TO TECH SPEC REQUIRING ACTION THAT THE COMPONENT DESIGN CURRENTLY DOES NOT ALLOW. CORRECTIVE ACTION 1- OBTAIN TECH SPEC CHANGE TO ALLOW STARTING OF DG WITHOUT PRELUBE/WARMUP, 2- OBTAIN DESIGN CHANGE AND PERFORM MODIFICATION TO ALLOW OPERATION AT LOWER SPEEDS.

[265] WPPSS 2 DOCKET 50-397 LER 84-032
 IMPROPER OPERATION OF PRIMARY CONTAINMENT AIRLOCK.
 EVENT DATE: 041184 REPORT DATE: 051084 NSSS: GE TYPE: BWR

(NSIC 189689) DURING INITIAL PLANT OPERATION AND HEATUP, ENTRIES INTO THE PRIMARY CONTAINMENT (P.C.) WERE REQUIRED FOR MINOR MAINTENANCE, INSPECTION OF PIPE WHIP RESTRAINTS, AND HANGER INSPECTION. ON 4/11/84, PERSONNEL ENTERING P.C. NOTICED THE INNER DOOR OF THE P.C. AIRLOCK STARTING TO OPEN, WHILE THEY WERE CLOSING THE

OUTER DOOR. THE INNER DOOR WAS IMMEDIATELY CLOSED, THE INTERLOCK MECHANISM INSPECTED AND FOUND TO BE DISENGAGED. THE INTERLOCK MECHANISM WAS ENGAGED, THE OUTER DOOR WAS CLOSED, AND A NORMAL AIRLOCK OPERATION CONTINUED.

[266] WPPSS 2 DOCKET 50-397 LER 84-037
 LOOSE PARTS DETECTION DAMAGED.
 EVENT DATE: 041184 REPORT DATE: 051884 NSSS: GE TYPE: BWR

(NSIC 189752) DURING INITIAL PLANT HEATUP THE PIPING IN THE PRIMARY CONTAINMENT WAS BEING INSPECTED FOR MOVEMENT AND LOOSE PARTS DETECTOR CHANNEL 6 WAS DAMAGED. THE DAMAGE OCCURRED WHEN AN ATTEMPT TO REMOVE INSULATION WAS MADE PRIOR TO REMOVING THE DETECTOR. THIS DETECTOR MONITORS THE A-RECIRCULATION PUMP (RRC-P-1A) SUCTION. THE CAUSE OF THE MALFUNCTION HAS BEEN DETERMINED TO BE EITHER THE DETECTOR OR THE CABLE OR BOTH. REPLACEMENT WAS PLANNED DURING AN OUTAGE WHICH WAS TO OCCUR ON 5-1-84; HOWEVER, PLANT TESTING HAS POSTPONED THE OUTAGE. WE HAVE ALSO EXPERIENCED DIFFICULTY IN OBTAINING A NEW DETECTOR AND THE PRESENT DELIVERY DATE IS LATE MAY. THE PLANT OUTAGE IS PRESENTLY SCHEDULED FOR 5-21-84 AND INCLUDES PLANS TO RESTORE CHANNEL 6 TO OPERABLE STATUS.

[267] WPPSS 2 DOCKET 50-397 LER 84-030
 UNSCHEDULED INITIATION OF CR EMERGENCY FILTRATION UNITS.
 EVENT DATE: 041284 REPORT DATE: 051084 NSSS: GE TYPE: BWR
 VENDOR: LIMITORQUE CORP.

(NSIC 189687) A GROUND ON A REACTOR CORE ISOLATION COOLING SYSTEM MOTOR OPERATED VALVE (EPN: RCIC-V-113) INDUCED SPIKES TO THE CONTROL ROOM OUTSIDE AIR RADIATION MONITORING SYSTEM AS THE VALVE WAS STROKED. THE SPIKES WERE OF SUFFICIENT MAGNITUDE TO CAUSE ACTUATION OF THE CONTROL ROOM EMERGENCY FILTRATION UNITS. TROUBLESHOOTING REVEALED A GROUNDED VARISTOR, WHICH WHEN REWORKED CORRECTED THE PROBLEM.

[268] WPPSS 2 DOCKET 50-397 LER 84-033
 ISOLATION ACTUATIONS OCCUR DUE TO CONSERVATIVE SETPOINTS OF TEMPERATURE SWITCHES.
 EVENT DATE: 041284 REPORT DATE: 051084 NSSS: GE TYPE: BWR

(NSIC 189750) DURING PLANT HEATUP, ISOLATIONS HAVE OCCURRED DUE TO CONSERVATIVE INITIAL SETPOINTS OF THE TEMPERATURE MONITORING SWITCHES WHICH ACTUATE THE NUCLEAR STEAM SUPPLY SHUTOFF SYSTEM (NSSSS). ACTUATIONS ON 4-12-84, 4-18-84, AND 4-19-84 CAUSED ISOLATION OF THE REACTOR WATER CLEANUP (RWCU) SYSTEM. THE AREA OF THE ALARM WAS INSPECTED TO VERIFY THERE WAS NO STEAM LEAKAGE. NEW SETPOINTS WERE DETERMINED, THE SWITCHES RESET, AND THE RWCU SYSTEM RETURNED TO SERVICE.

[269] WPPSS 2 DOCKET 50-397 LER 84-034
 CONTAINMENT TEMPERATURE INDICATORS HAVE FALSE READINGS.
 EVENT DATE: 041584 REPORT DATE: 051184 NSSS: GE TYPE: BWR

(NSIC 189690) DURING INITIAL PLANT HEATUP, 4 OF 43 CONTAINMENT TEMPERATURE INDICATORS EXCEEDED 150F, THE HIGHEST READING BEING 165F FOR A PERIOD GREATER THAN 8 HOURS (APPROXIMATELY 16 HOURS). THE AVERAGE DRYWELL TEMPERATURE DID NOT EXCEED 135F AS PER TECH SPEC 3.6.1.7. THE FOUR TEMPERATURE DETECTORS ARE LOCATED IN AREAS OF STAGNATE AIR FLOW. THE CONCERNED AREAS DO NOT CONTAIN COMPONENTS WHICH ARE REQUIRED TO PERFORM AN ACTIVE SAFETY FUNCTION. ADDITIONAL SEALING WAS COMPLETED ON INSTALLED INSULATION, AND MINOR HVAC DUCT MODIFICATIONS TO FACILITATE AIR DISTRIBUTION IN CONTAINMENT WERE PERFORMED. ON 4/28/84 A SIMILAR OCCURRENCE WAS RECORDED IN THAT THE 150F LIMIT WAS EXCEEDED BY 8F. A FOLLOW-UP REPORT WILL BE SUBMITTED.

[270] WPPSS 2 DOCKET 50-397 LER 84-035
 RWCU ISOLATES DUE TO FLOW MISMATCH.
 EVENT DATE: 042084 REPORT DATE: 051884 NSSS: GE TYPE: BWR

(NSIC 189751) THE REACTOR WATER CLEANUP SYSTEM (RWCU) ISOLATION VALVES RWCU-V-1 & 4 WERE CYCLED CLOSED VIA A LEAK DETECTION SYSTEM HIGH DELTA FLOW SIGNAL. THE HIGH DELTA FLOW OCCURRED WHILE TRANSFERRING THE RWCU SYSTEM FROM THE RECIRCULATION MODE TO THE BLOWDOWN MODE. AFTER AN INSPECTION TO INSURE THAT NO ACTUAL LEAK EXISTED, THE ISOLATION SIGNAL WAS RESET AND THE RWCU SYSTEM RETURNED TO SERVICE IN THE BLOWDOWN MODE. THE HIGH DELTA FLOW CONDITION WAS CAUSED BY THE TRANSFER FROM RECIRCULATION TO BLOWDOWN. THE PRESENT DESIGN CALLS FOR THE ALARM AND THE ISOLATION SIGNAL INITIATION TO BE SET AT THE SAME POINT; HOWEVER, THERE IS A 45 SECOND TIME DELAY PRIOR TO ACTUATION OF THE ANNUNCIATOR AND THEREFORE ANNUNCIATOR ACTUATION AND ISOLATION SIGNAL INITIATION OCCUR SIMULTANEOUSLY. ENGINEERING EVALUATION OF THIS CONDITION HAS BEEN REQUESTED TO DETERMINE ADEQUACY. THE OPERATING PROCEDURE HAS BEEN REVIEWED AND IT DOES CONTAIN ADEQUATE CAUTION NOTES TO WARN OPERATORS THAT FLOW ADJUSTMENTS SHOULD BE MADE IN SMALL INCREMENTS.

[271] WPPSS 2 DOCKET 50-397 LER 84-036
 REACTOR SCRAM DURING FEEDWATER CONTROL SYSTEM ADJUSTMENT.
 EVENT DATE: 042384 REPORT DATE: 051884 NSSS: GE TYPE: BWR

(NSIC 189907) DURING INITIAL POWER OPERATION TEST EQUIPMENT WAS INSTALLED TO FACILITATE TROUBLESHOOTING OF THE FEEDWATER CONTROL SYSTEM. THE TEST EQUIPMENT WAS INSTALLED WITH A BYPASS SWITCH REPOSITIONED IMPROPERLY AND THIS IMMEDIATELY INJECTED A TEST SIGNAL INTO THE FEEDWATER CONTROL CIRCUIT. THE CONTROL ROOM OPERATOR NOTED THE CHANGE IN LEVEL INDICATION AND ORDERED THE TEST EQUIPMENT REMOVED BUT THE CHANGES INJECTED INTO THE FEEDWATER CONTROL SYSTEM HAD ALREADY CAUSED THE STARTUP LEVEL CONTROL VALVE (RPW-FCV-10) TO START CYCLING. AS RPW-FCV-10 STARTED CYCLING OPEN AND INJECTING COLD FEEDWATER INTO THE RPV, AN INTERMEDIATE RANGE CHANNEL F UPSCALE TRIP INITIATED A SUBCHANNEL-B HALF SCRAM. THIS CAUSED A FULL SCRAM BECAUSE A SUBCHANNEL-A HALF SCRAM ALREADY EXISTED DUE TO SURVEILLANCE TESTING WHICH HAD BEEN IN PROCESS THE ENTIRE TIME.

[272] WPPSS 2 DOCKET 50-397 LER 84-039
 CONTROL ROOM EMERGENCY FILTRATION UNITS ACTUATE.
 EVENT DATE: 052684 REPORT DATE: 052384 NSSS: GE TYPE: BWR

(NSIC 190264) OPERATION OF A REACTOR CORE ISOLATION COOLING SYSTEM MOTOR OPERATED VALVE (EPN: RCIC-V-45) INDUCED SPIKES TO THE CONTROL ROOM OUTSIDE AIR RADIATION MONITORING SYSTEM. THE SPIKES WERE OF SUFFICIENT MAGNITUDE TO CAUSE ACTUATION OF THE CONTROL ROOM EMERGENCY FILTRATION UNITS. A SIMILAR EVENT WAS REPORTED VIA LER 84-030-00 WHEN RCIC-V-113 WAS OPERATED WITH ITS NOISE SUPPRESSION DEVICE (VARISTOR) GROUNDED. AFTER INSURING RADIATION LEVELS WERE AT NORMAL BACKGROUND, THE AUTO INITIATION SIGNAL WAS RESET AND THE CONTROL ROOM VENTILATION LINEUP WAS RETURNED TO NORMAL.

[273] WPPSS 2 DOCKET 50-397 LER 84-040
 UNSCHEDULED LOCKOUT OF THE HIGH PRESSURE CORE SPRAY DIESEL GENERATOR.
 EVENT DATE: 051084 REPORT DATE: 053184 NSSS: GE TYPE: BWR

(NSIC 190265) ON 5/10/84, WHILE PERFORMING PREVENTIVE MAINTENANCE ON A HPCS-DG PRESSURE SWITCH, A TECHNICIAN MISCOUNTED THE CONTACTS ON AN INTERLOCK RELAY AND INSTALLED A JUMPER WHICH CAUSED A LOCKOUT OF THE HPCS-DG. THE ACTUATION OF THE HPCS-DG LOCKOUT RELAY WAS ANNUNCIATED IN THE CONTROL ROOM AND AN OPERATOR WAS DISPATCHED TO THE HPCS-DG ROOM. DISCUSSION WITH THE TECHNICIAN REVEALED THE MISPLACED JUMPER AND IT WAS REMOVED. THE OPERATOR RESET THE LOCKOUT AND VERIFIED THE HPCS-DG HAD BEEN RETURNED TO STANDBY STATUS. THE SEQUENCE OF EVENTS

DESCRIBED ABOVE TOOK APPROX. 20 MINS. TO TRY AND PREVENT THIS IN THE FUTURE A NOTE WAS ADDED TO THE PRESSURE SWITCH CALIBRATION SHEET DESIGNATING THE PROPER CONTACTS TO BE JUMPERED AND CAUTIONING THAT A LOCKOUT CAN OCCUR IF THE WRONG CONTACTS ARE JUMPERED.

[274] YANKEE ROWE DOCKET 50-029 LER 84-004
 FUEL DEGRADATION.
 EVENT DATE: 041984 REPORT DATE: 051884 NSSS: WE TYPE: PWR

(NSIC 189696) WHILE PERFORMING CORE ALTERATIONS IN MODF 6 FOR CORE XVII REFUELING, OPERATORS NOTED THAT FUEL ASSEMBLY B-636 HAD SUSTAINED DAMAGE. THE DAMAGE, WHICH OCCURRED DURING PLANT OPERATION, APPEARS TO BE CAUSED BY FLOW-INDUCED FRETTING WEAR AT THE BAFFLE SIDE OF CORE POSITION C-9. 13 FUEL RODS WERE FOUND TO HAVE BEEN DAMAGED AND SOME SPACER GRID MATERIAL WAS MISSING. THE INTACT FUEL RODS FROM THE DAMAGED ASSEMBLY WERE TRANSFERRED INTO A NEW CAGE, B-100-R, WITH INERT RODS OF SOLID ZIRCALOY REPLACING THE DAMAGED FUEL RODS. IN ORDER TO PREVENT A RECURRENCE OF THE DAMAGE, THE FRESH ASSEMBLY GOING INTO POSITION C-9 HAS HAD 19 INERT ZIRCALOY RODS INSERTED IN THE FUEL ROD POSITIONS WHERE DAMAGE TO THE OLD (B-636) ASSEMBLY HAD BEEN OBSERVED. PRIMARY PLANT CHEMISTRY HAD GIVEN INDICATIONS OF FUEL DEGRADATION DURING CORE OPERATION AND WAS CLOSELY MONITORED, BUT DID NOT EXCEED TECH SPEC LIMITS.

[275] YANKEE ROWE DOCKET 50-029 LER 84-006
 TWO TRIP VALVES FAIL LEAK RATE TESTS.
 EVENT DATE: 042384 REPORT DATE: 052384 NSSS: WE TYPE: PWR

(NSIC 189697) WHILE PERFORMING SURVEILLANCE TEST OP-4702, "VAPOR CONTAINMENT TYPE B AND C PENETRATION TESTS," THE COMBINED LEAKAGE RATE FOR ALL PENETRATIONS AND VALVES SUBJECT TO TYPE B AND C TESTS WAS FOUND TO EXCEED THE TECH SPEC 3.6.1.2.B LIMIT. AT THE TIME OF THIS DISCOVERY, THE PLANT WAS SHUT DOWN FOR A REFUELING OUTAGE WITH ALL OF THE FUEL REMOVED FROM THE VESSEL. TWO VALVES OF SIMILAR DESIGN, COMPONENT COOLING SUPPLY HEADER AUTOMATIC TRIP VALVE, CC-TV-208, AND CONTAINMENT HEATING STEAM SUPPLY AUTOMATIC TRIP VALVE, HC-TV-413, WERE THE PRIMARY CONTRIBUTORS TO THE COMBINED LEAKAGE RATE. THE CAUSE OF THE OCCURRENCE HAS BEEN ATTRIBUTED TO INADEQUATE SEATING OF THE VALVE DISCS. THE VALVES WERE LAPPED AND SATISFACTORILY RETESTED. HOWEVER, THE REPLACEMENT OR REDESIGN OF CC-TV-208 AND HC-TV-413 IS BEING EVALUATED.

[276] YANKEE ROWE DOCKET 50-029 LER 84-007
 SUPPORT DEFICIENCIES OF PORTIONS OF SMALL BORE PIPING SYSTEMS INSIDE CONTAINMENT.
 EVENT DATE: 042784 REPORT DATE: 052584 NSSS: WE TYPE: PWR

(NSIC 189892) DURING THE PRESENT CORE XVII REFUELING OUTAGE, THE PLANT WAS NOTIFIED BY ITS NUCLEAR SERVICES DIVISION THAT CERTAIN PORTIONS OF THE VENT AND DRAIN, CHARGING AND VOLUME CONTROL, PRESSURE RELIEF, AND MAIN COOLANT SYSTEM(S) WERE NOT IN COMPLIANCE WITH THE DEADWEIGHT SUPPORT REQUIREMENTS OF THE ORIGINAL DESIGN CODE, ASA B31.1. THERE WERE NO COMPONENT OR SYSTEM FAILURES ASSOCIATED WITH THIS EVENT. THE DEADWEIGHT SUPPORTS WERE TO BE FIELD ENGINEERED AND INSTALLED DURING ORIGINAL CONSTRUCTION BUT WERE INADVERTENTLY OMITTED BY THE ARCHITECT/ENGINEER. TEMPORARY SUPPORTS WERE INSTALLED, AS NECESSARY, TO ALLOW REFUELING OF THE REACTOR VESSEL; PERMANENT SUPPORTS WILL BE INSTALLED PRIOR TO RETURNING TO POWER.

[277] YANKEE ROWE DOCKET 50-029 LER 84-008
 LOSS OF OFF-SITE POWER OCCURS.
 EVENT DATE: 050384 REPORT DATE: 060184 NSSS: WE TYPE: PWR

IN ADDITION, A REVISION WILL BE MADE TO THE ZION CONTAINMENT PURGE RELEASE FORM (ZCP 304) WHICH WILL REQUIRE THAT FLOW BE CHECKED PRIOR TO VENTING OR PURGING.

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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.

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This monthly report contains Licensee Event Report (LER) operational information that was processed into the LER data file of the Nuclear Safety Information Center (NSIC) during the one month period identified on the cover of this 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 are described in detail in NRC Regulatory Guide 1.16 and NUREG-0161, Instructions for Preparation of Data Entry Sheets for Licensee Event Reports. The LER summaries in this report are arranged alphabetically by facility name and then chronologically by event date for each facility. Component, system keywords, and component vendor indexes follow the summaries. The components, systems, and vendors are those identified by the utility when the LER form is initiated; the keywords are assigned by the computer using correlation tables from the Sequence Coding and Search System.

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