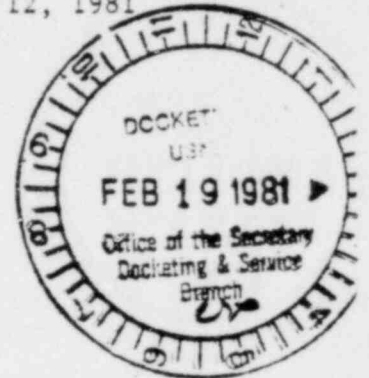


DOCKET NUMBER **SD-289** (Cesta)
PROC. & UTIL. FAC.

Etters, PA 17319
February 12, 1981

Mr. Ivan W. Smith, Esquire
Chairman, Atomic Safety and Licensing Board Panel
TMI-1 Restart Proceeding
U.S. Nuclear Regulatory Commission
Washington, DC 20555



Dear Mr. Smith:

Attached you will find a copy of my limited appearance statement which I am presenting to the Atomic Safety and Licensing Board Panel on March 5, 1981, at the William Penn Museum, Harrisburg, PA. I urge the Panel to deny the restart of Three Mile Island Unit 1 and respectfully request your consideration of my concerns as expressed in my statement.

Cordially,

Willis Wolfe
Willis Wolfe

cc: Mr. John F. Ahearne
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Council on Environmental Quality
1722 Jackson Place, N.W.
Washington, DC 20006

Mr. Peter Bradford
U.S. Nuclear Regulatory Commission
Washington, DC 20555

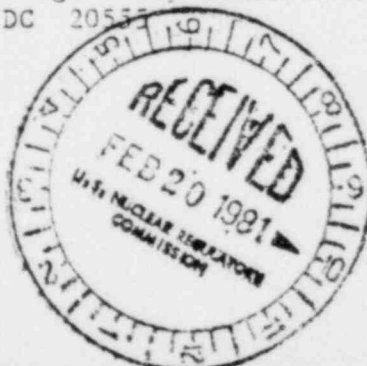
Ms. Maureen Kennedy
Critical Mass Energy Project
215 10th Ave., S.E.
Washington, DC 20003

Mr. Victor Gilinski
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Governor Bruce Babbitt
Phoenix, AZ 85007

Mr. Joseph Hendrie
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Governor Richard Thornburgh
225 Main Capitol
Harrisburg, PA 17105



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U.S. NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY & LICENSING BOARD
Docket # 50-289



Should Three Mile Island Unit 1 be restarted?

It has been publicized that "TMI Unit 1 has a very good operating record".

It has also been publicized that past deficiencies by Metropolitan Edison are irrelevant in considering present competency to operate TMI Unit 1. This indicates to me that the NRC attitude is such that hypothetical accidents of low probability should not be considered. The probability of individual scenarios are not the important thing. What is important is the sum of those probabilities.

Did you ever go to the race track to bet? Without handicapping the horses to determine their past record?

You have been given Exhibit 1(a) which is a copy of a print-out of Safety Related Incidents at TMI Unit 1, (now called Licensee Event Report) as recorded in the NRC Public Document Room in Washington, DC.

This record shows 89 events which occurred between February 3, 1977 and October 17, 1980, a period of 3 years and 8 months.

You may consider the incidents listed in the exhibit as insignificant, but it was a series of insignificant incidents like the ones on the print-out that caused the March 28, 1979, accident in Unit 2.

63 incidents at Unit 1 were reported prior to the Unit 2 accident, 6 of which occurred during the refueling shutdown immediately prior to the accident, and others of the 63 could conceivably have happened during other refueling shutdown procedures. 26 incidents definitely happened since the March 28, 1979, accident when Unit 1 was ordered shut down by the NRC August of 1979.

This would indicate that we are not judging Met Ed's incompetence or inefficiency just by the past, but by the present as well.

Please focus your attention to page 22 - event #2 - of the Exhibit 1(a) print-out. How can improper installation be classified as component failure.

On page 20, observe the 4th incident recorded - emergency generator, bearing insulation has deteriorated. CAUSE - lube oil used was of lower viscosity than engine manufacturer recommendation.

Observe on page 2 - 3rd incident - constraint bolts found loose - all accessible bolts were tightened & locking devices installed. Explanation of corrective procedure implies the presumption that inaccessible bolts are not important.

In addition, you have Exhibit 1(b) which is a list of 23 additional events dating back to October 3, 1974.

I emphatically reject the contention that TMI Unit 1 has a very good operating record.

The recorded facts are evidence that TMI Unit 1 is another accident waiting to happen, and should not be restarted.

Has there been gross deception and/or manipulation? Herewith one example - On August 13 and 14, 1979, when Harold Denton was in the area, radiation was almost zero. After 5 P.M. when he left, radiation shot up to 1½ roentgens per hour.

Are these incidents all inclusive?
Has Met Ed reported everything?
Is Met Ed reporting everything now?

I am providing as Exhibit 2 an example of Met Ed's truthfulness or credibility - An NRC official said "We have to rely on what Met Ed tells us, and hopefully they tell us everything".

In February, 1980, Met Ed paid a fine of \$155,000 for Safety Violations, without a public hearing to contest the payment.
Did Met Ed fear the revelation of undisclosed derelictions?

Why does General Public Utilities (of which Met Ed is a subsidiary) object to the NRC staff's requiring "full compliance" with corrective measures mandated by the NRC for all nuclear plants?

Why must we tolerate the production of more radioactive waste when no one knows how to safely dispose of and/or store it in a safe manner for the hundreds of years required.

In May, 1979, the late Supreme Court Justice, William O. Douglas wrote a letter to the editor of the Washington Post arguing that it was "the moral equivalent of suicide" for America to depend on nuclear power plants. "The benefits of nuclear power are far outweighed by the greater risks imposed upon an unsuspecting public".

Psychologically speaking, the main mistake some experts make is to assume that after a time memory "fades", when actually it "grows".

Perfect people operating perfect machines are required to handle nuclear technology so that machines will be useful servants rather than tyrannical adversaries. Neither exist. TMI is proof of that.

Again, I emphatically reject the contention that TMI Unit 1 has a very good operating record.

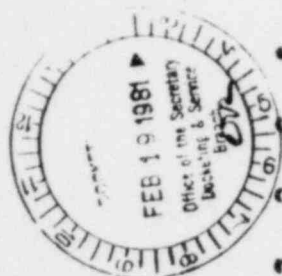
The facts speak for themselves: TMI Unit 1 is another accident waiting to happen, and should not be restarted.

Exhibit #1(a)

DEC 17, 1980

LER OUTPUT ON THREE MILE ISLAND 1 EVENTS
FROM 1977 TO THE PRESENT
EVENTS SORTED BY FACILITY AND EVENT DATE

PAGE 1



FACILITY/SYSTEM/ COMPONENT/COMPONENT SUBCODE/ CAUSE/CAUSE SUBCODE/ COMPONENT MANUFACTURER	LOCKET NO./ LER NO./ CONTROL NO./ NSSS	EVENT DATE/ REPORT DATE/ REPORT TYPE	EVENT DESCRIPTION/ CAUSE DESCRIPTION
THREE MILE ISLAND-1 EMERG GENERATOR SYS + CONTROLS CIRCUIT CLOSERS/INTERRUPTERS NO SUBCOMPONENT PROVIDED COMPONENT FAILURE CAUSE SUBCODE NOT PROVIDED CONSOLIDATED CONTROLS CORP.	05000289 77 03T 017050 B+W	020377 021677 2-WEEK	(77-1-1T) DURING NORMAL OPERATION THE "A" DIESEL GENERATOR WOULD NOT START IN THE EVENT OF LOSS OF OFFSITE POWER WITHOUT AN ES SIGNAL. THIS IS NOT A REPETITIVE OCCURRENCE, THE "B" DIESEL GENERATOR WAS DOWN FOR ANNUAL INSPECTION. (TS 3.7.2.C.) CAUSED BY MECHANICAL BINDING OF THE PRESSURE SWITCH PARTS. THE SWITCH WAS REPAIRED AND THE CRANKING TIMERS WERE SET FOR 10 SECONDS.
THREE MILE ISLAND-1 REACTOR CONTAINMENT SYSTEMS VALVE OPERATORS NO SUBCOMPONENT PROVIDED COMPONENT FAILURE CAUSE SUBCODE NOT PROVIDED RELANCE ELECTRIC COMPANY	05000289 77 03L 017343 B+W	030977 340377 30-DAY	(77-03/3L) DURING NORMAL OPERATION, WHILE PERFORMING THE R.B. SPRAY SYSTEM CHANNEL TEST, THE R.B. SPRAY PUMP SUCTION ISOLATION VALVE FAILED TO CLOSE WITH A REMOTE CONTROL SIGNAL. THE VALVE WAS MANUALLY CLOSED, FAILED TO OPEN WITH A REMOTE SIGNAL AND WAS MANUALLY OPENED. THE VALVE MOTOR WAS REPLACED AND THE SPRING PACK WAS CLEANED. GREASE IN THE SPRING PACK PREVENTED THE TORQUE SWITCH FROM STOPPING THE MOTOR. MOTOR WAS REPLACED & EXCESS GREASE WAS REMOVED FROM SPRING PACK.
THREE MILE ISLAND-1 OTHER SYSTEMS VALVES NO SUBCOMPONENT PROVIDED COMPONENT FAILURE CAUSE SUBCODE NOT PROVIDED NO MANUFACTURER SPECIFIED	05000289 77 03T 017610 B+W	032477 042977 2-WEEK	(77-0) DURING REFUELING SHUTDOWN, WHILE PERFORMING THE COMBINED LOCAL LEAK RATE TEST, THE RESULTS EXCEEDED THE ALLOWABLE VALUE. THE VALVES WITH THE GREATEST EXCESS WERE REPAIRED AND NEW VALVES WITH BETTER LEAK TIGHTNESS ARE BEING EVALUATED. THIS OCCURRENCE IS REPETITIVE. SEVERAL VALVES DO NOT MAINTAIN THEIR LEAK TIGHTNESS DUE TO WEAR. METAL SPRINGS DAMAGED THE SEATING SURFACES ON ONE VALVE.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE PERSONNEL ERROR CAUSE SUBCODE NOT PROVIDED ITEM NOT APPLICABLE	05000289 77 03T 017611 B+W	041577 042977 2-WEEK	(77-4) DURING THE REFUELING OUTAGE, WHILE UPDATING OF THE VALVES NAME PLATE DATA, THE VENDOR-CERTIFIED VALVE CAPACITY WAS FOUND TO BE LESS THAN THAT REQUIRED IN THE SAFETY ANALYSIS. THE ANALYSIS WAS RECOMPUTED AND A TECH. SPEC. CHANGE WILL BE SUBMITTED TO CORRECTLY STATE THE RELIEF CAPACITY. A TOTAL COMBINED RELIEF VALVE CAPACITY VALUE OF 623,400 LB/HR FROM VENDOR VALVE DRAWING WAS USED IN MAKING THE ASSUMPTION THAT 619,200 LB/HR WOULD BE A SUITABLE VALUE TO USE IN THE SAFETY ANALYSIS.

DEC 17, 1980

LER OUTPUT ON THREE MILE ISLAND 1 EVENTS
FROM 1977 TO THE PRESENT
OUTPUT SORTED BY FACILITY AND EVENT DATE

PAGE 2

EVENT TYPE/ITEM CODE/INSTRUMENT SUBCODE/ CAUSE/CAUSE SUBCODE/ COMPONENT MANUFACTURER	EVENT NO. LER NO./ CONTROL NO./ NSSS	EVENT DATE/ REPORT DATE/ REPORT TYPE	EVENT DESCRIPTION/ CAUSE DESCRIPTION
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE HANGERS,SUPPORTS,SHOCK SUPPRESS NO SUBCOMPONENT PROVIDED OTHER CAUSE SUBCODE NOT PROVIDED ITEM NOT APPLICABLE	05000289 77 031 017949 B+W	050477 060377 30-DAY	(77-08/31) DURING REFUELING SHUTDOWN A TEST OF SHROBBER WAS PERFORMED TO SATISFY TECH SPEC REQUIREMENTS. THIS TEST REVEALED 3 SHROBBER WHICH DID NOT LOCK UP. THIS IS A REDUNDANT OCCURENCE. ALL SHROBBER WHICH FAILED WERE REPAIRED OR REPLACED. MOST FAILED DUE TO IMPROPER ADJUSTMENT OF THE LOCKING VELOCITIES. THERE WAS ONE FAILED SEAL. THIS SEAL WAS REPLACED AND THE OTHERS ADJUSTED.
THREE MILE ISLAND-1 REACTOR CONTAINMENT SYSTEMS PENETRATIONS,PRIMARY CONTAINMENT NO SUBCOMPONENT PROVIDED DESIGN/FABRICATION ERROR CAUSE SUBCODE NOT PROVIDED CHICAGO BRIDGE & IRON COMPANY	05000289 77 011 017752 B+W	050977 052377 2-WEEK	(77-07/11) DURING REFUELING SHUTDOWN BOTH DOORS OF THE REACTOR BUILDING EMERGENCY PERSONNEL ACCESS HATCH WERE OPEN AT THE SAME TIME. THIS OCCURENCE HAS HAPPENED TWO OTHER TIMES. BECAUSE THE OCCURENCE WAS PARTIALLY DUE TO MECHANICAL (DESIGN) FAILURE A NEW DESIGN IS BEING EVALUATED. BY CLOSING THE DOOR AGAINST AN OBSTRUCTION OR CLOSING IT TOO RAPIDLY CAUSED EXCESSIVE STRESS ON THE UPPER HINGE SHAFT EXTENSION CAUSING IT TO BE NO THEREFORE ALLOWING THE MECHANICAL INTERLOCK TO FAIL.
THREE MILE ISLAND-1 TURBINE-GENERATORS + CONTROLS HANGERS,SUPPORTS,SHOCK SUPPRESS NO SUBCOMPONENT PROVIDED OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 77 011 021370 B+W	051277 052677 2-WEEK	(77-09) DURING STARTUP OPERATIONS STEAM GENERATOR LOCA CONSTRAINT BOLTING WAS FOUND LOOSE. ALL ACCESSIBLE BOLTS WERE TIGHTENED AND LOCKING DEVICES WERE INSTALLED. EITHER THE BOLTS WERE IMPROPERLY TIGHTENED DURING INITIAL INSTALLATION OR LOOSENED DUE TO THERMAL CYCLING.
THREE MILE ISLAND-1 OTHER FEAT/SIM + POW CONV SYS INSTRUMENTATION + CONTROLS NO SUBCOMPONENT PROVIDED DEFECTIVE PROCEDURES NOT APPLICABLE FOXORD CO., THE	05000289 77 011 021367 B+W	051777 053177 2-WEEK	(77-10) DURING AN INSTRUMENTATION HEAT BALANCE CALIBRATION AT 40% POWER - SIGNIFICANT DIFFERENCE NOTED BETWEEN GENERATED AND COMPUTER CALCULATED CORE THERMAL POWER. CTP IN ERROR DUE TO FAILED STEAM PRESSURE TRANSMITTER. REDUNDANT TRANS. USED TO MAKE CORRECT CALCULATIONS PRESSURE TRANSMITTER FAILED CAUSING INCORRECT CALIBRATION. PROCEDURE TO BE CHANGED TO REQUIRE EVALUATION OF CALCULATIONS AND RECALIBRATION OF INSTRUMENTS.

DEC 17, 1980

ALL OUTPUT ON THREE MILE ISLAND 1 EVENTS
FROM 1977 TO THE PRESENT
OUTPUT SORTED BY FACILITY AND EVENT DATE

PAGE 3

COMPONENT/COMPONENT SUBCODE/ CAUSE/CAUSE SUBCODE/ COMPONENT MANUFACTURER	LER NO./ CONTROL NO./ N555	EVENT DATE/ REPORT DATE/ REPORT TYPE	EVENT DESCRIPTION/ CAUSE DESCRIPTION
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE PERSONNEL ERROR CAUSE SUBCODE NOT PROVIDED ITEM NOT APPLICABLE	05000289 77 03L 017947 B+W	051977 061777 30-DAY	(77-12/3L) DURING NORMAL OPERATIONS ENGINEERED SAFEGUARDS PUMP MU-P-1A WAS REMOVED FROM SERVICE PRIOR TO TESTING THE REDUNDANT PUMP. THIS IS A REPETITIVE OCCURRENCE. THE REDUNDANT PUMP WAS LATEX TESTED AND FOREMAN, SUPERVISORS AND C.R. OPERATORS WERE BRIEFED ON THE OCCURRENCE.
THREE MILE ISLAND-1 ENGRD SAFETY FEATR INSTR SYS CIRCUIT CLOSERS/INTERRUPTERS NO SUBCOMPONENT PROVIDED DESIGN/FABRICATION ERROR CAUSE SUBCODE NOT PROVIDED WESTINGHOUSE ELECTRIC CORP.	05000289 77 03L 017948 B+W	051977 060277 2-WEEK	(77-11/1T) DURING POWER OPERATIONS THE "1B" ENGINEERED SAFEGUARDS MOTOR CONTROL CENTER TRIPPED DUE TO MECHANICAL BINDING OF THE TRIPPING STEM ON THE OVERLOAD DEVICE. REDUNDANT EQUIPMENT WAS AVAILABLE. THIS EVENT OCCURRED ONE OTHER TIME. A NEW OVERLOAD DEVICE WAS EXCHANGED.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER CAUSE SUBCODE NOT PROVIDED ITEM NOT APPLICABLE	05000289 77 03L 018200 B+W	052377 060677 2-WEEK	(77-13/4T) DURING NORMAL OPERATION THE TSS CONCENTRATION OF THE RIVER WATER DISCHARGE EXCEEDED DESIGN MAX. REDUNDANT SYSTEMS WERE NOT AVAILABLE FOR THIS REPETITIVE OCCURRENCE. DISCHARGE WAS IMMEDIATELY TERMINATED. THE LEAKING SAMPLE PIPES WILL BE REPAIRED. MAXIMUM CONC. REACHED 760 PPM.
THREE MILE ISLAND-1 CONTINUIT ISOLATION SYS + CONT VALVES NO SUBCOMPONENT PROVIDED COMPONENT FAILURE CAUSE SUBCODE NOT PROVIDED OTHER	05000289 77 03L 018256 B+W	052477 062377 30-DAY	(77-14/3L) DURING NORMAL OPERATIONS, WHILE PERFORMING THE "REACTOR BUILDING COOLING AND ISOLATION SYSTEM LOGIC CHANNEL AND COMPONENT TEST", REACTOR BUILDING COOLING RETURN ISOLATION VALVE, RB-VT, FAILED TO CLOSE UPON RECEIPT OF AN E.S. SIGNAL. THE VALVE WAS MANUALLY OPERATED AND THE SOLENOID VALVE OPERATOR WAS CLEANED. THE SYSTEM WAS TESTED SATISFACTORILY.
			DIRT ON THE SEAT OF THE DIAPHRAGM ASSEMBLY OF THE SOLENOID VALVE SUPPLYING AIR TO RB-V7 PREVENTED THE DISC FROM PROPERLY SEATING. ASCO 3 WAY SOLENOID VALVE, 120V D.C., SOLENOID CATALOG NO. 80173, SERIAL NO. 42671B.

DEC 17, 1920

LER OUTPUT ON THREE MILE ISLAND 1 EVENTS
FROM 1977 TO THE PRESENT
OUTPUT SORTED BY FACILITY AND EVENT DATE

PAGE 4

CAUSE/CAUSE SUBCODE/ COMPONENT MANUFACTURER	77	05000289 03L 018257 B+W	050677 062877 32-DAY	EVENT DATE/ REPORT TYPE	EVENT DESCRIPTION/ CAUSE DESCRIPTION
THREE MILE ISLAND-1 AC ONSITE POWER SYS + CONTROLS COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER CAUSE SUBCODE NOT PROVIDED ITEM NOT APPLICABLE	77	05000289 03L 018257 B+W	050677 062877 32-DAY		(77-19) (1) DURING NORMAL OPERATION, 230 KV SUBSTATION BUS 4 DE-ENERGIZED BY DIFFERENTIAL RELAY 87B5-1. BUS 4 AND AUX. TRANSFORMER RETURNED TO SERVICE IN TWO HOURS. ELECTRICAL SYSTEM RETURNED TO NORMAL LINEUP. OTHER DRAWINGS WILL BE CORRECTED BY SEPTEMBER. THERE WAS A WIRING ERROR ON THE AUXILIARY TRANSFORMER DUE TO AN ERROR IN THE DRAWINGS. THIS ERROR SHOWED THE DOT WHICH INDICATES POLARITY TO BE INCORRECTLY PLACED ON THE DRAWING. FIELD COPY OF DRAWING CORRECTED.
THREE MILE ISLAND-1 LIQ RADIOACT WASTE MANAGMNT SYS HEATERS/ELECTRIC SUBCOMPONENT NOT APPLICABLE COMPONENT FAILURE CAUSE SUBCODE NOT PROVIDED OTHER	77	05000289 03L 018771 B+W	071377 081277 30-DAY		(77-19) LEAK IN MISCELLANEOUS WASTE EVAPORATOR FEED TANK EMERSION HEATER SHORTED OUT HEATER & FEED PUMP. HEATER REPLACED. OPERATING PROCEDURE MODIFIED TO PREVENT FLOW OF LIQUID FROM ENTERING STEAM TUBES DURING EVAPORATION SHUT DOWN. THIS IS A REPETITIVE OCCURRENCE. RAW WATER HEATER (STEAM TASKS) AMF-YORK RAY D. PAK EVAPORATOR, U TUBE CONSTRUCTION, 316 L MATERIAL, 18 BUS 5/8 IN DIA. TUBE TYPE. THE HEATING ELEMENT FAILED DUE TO PITTING OF SURFACE CAUSING LEAK IN TEM P PROBE. RAY D. PAK EVAPORATOR, RILEY BEATRD EMERSION HEATER GKW 480V3 PHASE.
THREE MILE ISLAND-1 OTHER SYSTEMS COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE EXTERNAL CAUSE CAUSE SUBCODE NOT PROVIDED ITEM NOT APPLICABLE	77	05000289 04T 018627 B+W	071977 080277 2-WEEK		(ER 77-20) DURING NORMAL OPERATIONS A STORM FRONT PASSED THROUGH THE AREA INCREASING THE WIND VELOCITY AND DECREASING THE AIR TEMPERATURE FROM 94 DEGREES F TO 82 DEGREES F. THIS CAUSED MDCT TO COOL OUTLET WATER GREATER THAN ALLOWED BY 3 DEG F BELOW INLET WATER TEMP. LIMIT. MDCT FANS WERE SHUT OFF & OUTLET TEMP. RETURNED TO WITHIN LIMITS. (ETS 2.1 A(1)) THE CAUSE OF THIS OCCURRENCE WAS DUE TO A STORM FRONT MOVING THROUGH THE AREA OF THE PLANT.
THREE MILE ISLAND-1 AIRBORNE RADIOACT MONITOR SYS INSTRUMENTATION + CONTROLS NO SUBCOMPONENT PROVIDED DEFECTIVE PROCEDURES CAUSE SUBCODE NOT PROVIDED ITEM NOT APPLICABLE	77	05000289 01T 018772 B+W	072677 080977 2-WEEK		(77-21) RADIATION MONITOR RM-A2 WAS OUT OF SERVICE & AN ATMOSPHERE SAMPLE OF R.B. WAS NOT PERFORMED. THE MONITOR WAS REPAIRED & A SAMPLE OF R.B. ATMOSPHERE WAS TAKEN. THIS IS A REPETITIOUS OCCURRENCE. (77-21/1T) MONITOR LEAKED DUE TO A FAILURE TO ENSURE THE O-RING WAS IN PLACE PRIOR TO RETURNING THE DETECTOR TO THE SAMPLE CHAMBER. PROCEDURE TO BE REVISED.

DEC 17, 1980

LER OUTPUT ON THREE MILE ISLAND EVENTS
FROM 1977 TO THE PRESENT
OUTPUT SORTED BY FACILITY AND EVENT DATE

PAGE 5

FACILITY/SYSTEM/ CONTAINMENT/CONTAINMENT SYSTEMS/ CAUSE/CAUSE SUBCODE/ COMPONENT MANUFACTURER	DOCKET NO./ CONTROL NO./ NSSS	EVENT DATE/ REPORT DATE/ REPORT TYPE	EVENT DESCRIPTION/ CAUSE DESCRIPTION
THREE MILE ISLAND-1 RESIDUAL HEAT REMOV SYS + CONT PUMPS NO SUBCOMPONENT PROVIDED OTHER CAUSE SUBCODE NOT PROVIDED WORTHINGTON CORP	05000289 77-011 019383 B+W	082577 090877 2-WEEK	(77-22) DURING NORMAL OPERATIONS, RESTRICTIONS WERE PLACED ON DEGAY HEAT REMOVAL PUMPS WHICH WERE FOUND CONTRARY TO PUMPS OPERATING CAPABILITY AS STATED IN PSAR. THESE RESTRICTIONS WERE CREATED DUE TO FAILURE OF A SIMILAR PUMP AT ANOTHER UTILITY. NSSS VENDOR PLACED RESTRICTIONS ON PUMP DUE TO FAILURE OF SIMILAR PUMP AT ANOTHER UTILITY.
THREE MILE ISLAND-1 REACTOR CONTAINMENT SYSTEMS PENETRATIONS, PRIMARY CONTAINMENT NO SUBCOMPONENT PROVIDED DESIGN/FABRICATION ERROR CAUSE SUBCODE NOT PROVIDED CHICAGO BRIDGE & IRON COMPANY	05000289 77-011 019384 B+W	092077 100477 2-WEEK	(77-23) DURING ROUTINE HEATUP OPERATION, BOTH DOORS OF REACTOR BUILDING EMERGENCY PERSONNEL ACCESS HATCH WERE OPEN AT SAME TIME. DOORS WERE CLOSED WITHIN 10 MINUTES. REPETITIVE OCCURRENCE. ADDITIONAL INTERLOCK DEVICE WILL BE INSTALLED TO PREVENT THIS OCCURRENCE. FAILURE OF INTERLOCK DEVICE, POOR DESIGN OF HATCH, & INACCURATE TRAINING OF OPERATOR WERE THE CAUSES OF THIS OCCURRENCE.
THREE MILE ISLAND-1 REACTOR CONTAINMENT SYSTEMS PENETRATIONS, PRIMARY CONTAINMENT PERSONNEL ACCESS DESIGN/FABRICATION ERROR DESIGN CHICAGO BRIDGE & IRON COMPANY	05000289 77-027/011-0 021330 B+W	120377 121577 2-WEEK	OUTER R.B. DOOR FAILED TO OPEN DUE TO APPARENT JAMMED LINKAGE. WHEN TECHNICIAN FINALLY EXITED OUTER DOOR, INNER DOOR EQUALIZING VALVE FOUND OPEN, VIOLATING SECTION 3.6.1; CONTAINMENT INTEGRITY NOT MAINTAINED DURING POWER OPERATIONS. LATER EVALUATION ALSO NOTED THAT WITH INNER DOOR AND VALVE CLOSED, SECTION 3.6.1 WAS STILL VIOLATED BECAUSE OUTER DOOR WAS OPEN WITH NO PERSONNEL PASSAGE. DOOR ACTUATING CAM ROLLER WAS LOOSE AND BROKE THUS ALLOWING INSIDE DOOR EQUALIZING VALVE TO REMAIN OPEN AND PREVENTING OUTER DOOR FROM OPENING. CAM ROLLER WAS REPLACED AND DOORS RESTORED TO OPERATIONAL STATUS.
THREE MILE ISLAND-1 PROCESS SAMPLING SYSTEMS VALVE OPERATORS ELECTRIC MOTOR - AC DESIGN/FABRICATION ERROR MANUFACTURING LIMITORQUE CORP.	05000289 77-028/011-0 021381 B+W	120877 122877 30-DAY	DURING NORMAL OPERATION R.C. LETDOWN SAMPLE ISOLATION VALVE CA-V13 FAILED TO CLOSE WHEN ACTUATED BY A REMOTE SIGNAL WHICH CONSTITUTED OPERATION IN A DEGRADED MODE PERMITTED BY A LIMITING CONDITION FOR OPERATION, 6.9.2.8(2). THE VALVE WAS BEING CLOSED UPON COMPLETION OF THE ROUTINE R.C. SAMPLING. THERE WAS NO THREAT TO THE PUBLIC IN THAT THE REDUNDANT VALVE WAS PROMPTLY CLOSED. VALVE FAILED TO CLOSE BECAUSE THREADED STEM BUSHING (MOTOR FLANGE) FAILED DUE TO THREAD WEAR. INCREASED WEAR MAY HAVE BEEN CAUSED BY INSUFFICIENT LUBRICATION. WORN MOTOR FLANGE WAS REPLACED. VALVE WILL BE INSPECTED ONCE PER MONTH UNTIL 1978 REFUELING.

DEC 17, 1980

LER OUTPUT ON THREE MILE ISLAND 1 EVENTS
FROM 1972 TO THE PRESENT
OUTPUT SORTED BY FACILITY AND EVENT DATE

PAGE 6

FACILITY/SYSTEM/ COMPONENT CODE/CAUSE/CAUSE SUBCODE/ COMPONENT MANUFACTURER	POCKET NO./ LER NO./ CONTROL NO./REPORT DATE/ NSSS	EVENT DATE/ REPORT TYPE	EVENT DESCRIPTION/ CAUSE DESCRIPTION
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE DESIGN/FABRICATION ERROR DESIGN ITEM NOT APPLICABLE	05000289 77-029/01T-0 021362 B+W	121677 123077 2-WEEK	DURING NORMAL OPERATIONS MET ED NOTIFIED BY B&W THAT VOLUME OF BORON REQ UIRED BY T.S. WAS INSUFFICIENT FOR REACTOR COLD SHUTDOWN. ERROR IN CALC ULATIONS FOR BORON REQUIRED TO BORATE RX COOLANT SYSTEM TO 1% SUBCRITICAL MARGIN, COLD SHUTDOWN, WORST TIME IN CORE LIFE, HIGHEST WORTH CONTROL PCD ASSEMBLY FULLY WITHDRAWN AND NO CREDIT FOR XENON. REPORTABLE PER 6. 9.2.A(8). ORIGINAL CALCULATIONS TO DETERMINE AMOUNT OF BORON REQUIRED TO SHUTDOWN REACTOR WERE INCORRECT. UPON RECEIPT OF INFORMATION, VOLUME OF BORIC AC ID WAS INCREASED TO NEWLY CALCULATED VALUE. TECH SPEC AND PROCEDURE CHA NGES WERE INITIATED.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE INSTRUMENTATION + CONTROLS SENSOR/DETECTOR/ELEMENT DESIGN/FABRICATION ERROR DESIGN ITEM NOT APPLICABLE	05000289 77-030/01T-0 021363 B+W	121677 123077 2-WEEK	DURING NORMAL OPERATION, MET ED INFORMED BY B&W THAT INCORRECT APPLICATI ON OF BACKGROUND CORRECTION TO OUTPUT OF INCORE DETECTORS AS DETECTOR DEP LETES COULD CAUSE NEGATIVE BIAS IN CORE IMBALANCE AS MEASURED BY THE INC ORE DETECTOR SYSTEM. COULD HAVE PERMITTED REACTOR OPERATION WITH IMBALA NCE LESS CONSERVATIVE THAN ASSUMED IN SAR. REPORTABLE UNDER SECTION 6.9 2.A(8). CAUSED BY USING INCORRECT RELATIONSHIP FOR CALCULATING CORRECTED SIGNAL FOR POWER IMBALANCE. ALTHOUGH BIAS CAUSED BY ERROR COULD HAVE PERMITTED OPERATION LESS CONSERVATIVE THAN ASSUMED IN SAR, R.P.S. LIMITS HAVE SU FFICIENT CONSERVATISM TO OFFSET ERROR. SOFTWARE CHANGE WILL BE IMPLEMEN TED PRIOR TO CYCLE 4 OPERATION.
THREE MILE ISLAND-1 REAC COOL CLEANUP SYS + CONT PUMPS CENTRIFUGAL DESIGN/FABRICATION ERROR CONSTRUCTION/INSTALLATION BINGHAM PUMP CO	05000289 77-031/03L-0 021384 B+W	122577 012078 30-DAY	DURING NORMAL OPERATIONS PERFORMING EQUIPMENT SURVEILLANCE, PINHOLE LEAK NOTED ON CASING DRAIN FLYNGE WELD OF MU-P-18. CLOSING MU-V-74B, TO ISO LATE PUMP FOR REPAIRS, 10-15 GPM GLAND LEAK DEVELOPED. DISENGAGED STEM KEY PERMITTED STEM TO TURN WITHIN PACKING. PACKING GLAND WAS ADJUSTED. ON MOVING THE VALVE A 60 GPM LEAK DEVELOPED AT GLAND LEAKOFF. ALL LEAK AGE WAS ROUTED TO THE LADS PREVENTING ENDANGERMENT OF PUBLIC.
THREE MILE ISLAND-1 REACTOR CORE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE DESIGN/FABRICATION ERROR DESIGN ITEM NOT APPLICABLE	05000289 79-001/01T-0 023477 B+W	010678 012279 2-WEEK	PINHOLE LEAK STOPPED WHEN PUMP STOPPED. REDUNDANT PUMP OPERABLE. VALVE PLACED ON BACK SEAT TO STOP LEAK WHILE AWAITING REPAIRS. PUMP DATA: 3 X4.7.5 MSD, MODEL 280342, RPM-6800, GPM-300, HEAD-5545 PSIG. VALVE DATA 1 SIZE-3IN., MANUAL REMOTE HANDWHEEL, BODY MATERIAL-S.S., DESIGN PRESS. -3050 PSI. DURING NORMAL OPERATIONS MET-ED WAS INFORMED BY B&W THAT DURING CERTAIN PLANT TRANSIENTS THE DIFFERENCE BETWEEN REACTOR POWER INDICATED BY OUT-0 F-CORE INSTRUMENTATION AND REACTOR POWER CALCULATED BY HEAT BALANCE MAY EXCEED 4% OF FULL POWER. REPORTABLE PER T.S. 6.9.2.A(9). B&W INFORMED MET-ED THAT THE 4% DIFFERENCE MAY BE EXCEEDED FOR A PERIOD OF TIME FOLLO WING LARGE POWER TRANSIENTS. TECH SPEC CHANGE INITIATED TO INCREASE FREQUENCY OF HEAT BALANCE CHECKS TO MAINTAIN NOTED DIFFERENCE AT LESS THAN 4% OF FULL POWER. THIS CHANGE INCORPORATED INTO TMI-1 TECH. SPECS. BY AMENDMNT NO. 11/22 /78.

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CAUSE/CHARGE SUBCODE
COMPONENT MANUFACTURER

CONTROL NO. / REPORT DATE /
NSSS

EVENT DESCRIPTION/
CAUSE DESCRIPTION

THREE MILE ISLAND-1
EMERG GENERATOR SYS + CONTROLS
INSTRUMENTATION + CONTROLS
SENSOR/DETECTOR/ELEMENT
DESIGN/FABRICATION ERROR
DESIGN
CONSOLIDATED CONTROLS CORP.

05000289 011278
78-003/031-0 020378
020295 30-DAY
B+W

EMERGENCY DIESEL GENERATOR 1B FAILED TO START ON A SIMULATED AUTO TEST
1. SIGNAL DURING FIRST TEST OF ACTUATION 8 TEST GROUP 1 HPI/LPI LOGIC PER
SP185-5.2. REPORTABLE PER TECH SPEC 6.9.2.8(2). REDUNDANT SOURCES OF
F SITE POWER AVAILABLE AND EG-YIA OPERABLE; NO THREAT TO HEALTH AND SAFE
Y OF PUBLIC RESULTED. DIESEL SUCCESSFULLY STARTED ON REPEAT OF TEST 5
IGNAL, AND SUBSEQUENT TESTS. OTHER EVENTS OF THIS NATURE: 74-13.

OIL PRESSURE 11M SW PRESS SETTING DRIFTED FROM 10.8 TO 11.2 PSIG. CAUSED
DIESEL TO TRIP. THE SETTING WAS IGNORED TO 8 PSIG TO PREVENT FUTURE OCC
URRENCES UNTIL REPLACEMENT RECEIVED. PRESS RANGE: 1 TO 25 PSI; PRESS DIF
F. 2 TO 10 PSI; SENSOR TYPE: BELLOWS, MATERIAL: PHOSPHOR BRONZE; ELEC SW:
15A, 125 VAC 60 HZ AND 0.5A, 125 VDC; CAT. NO. 21A18L025B-8.

THREE MILE ISLAND-1
FIRE PROTECTION SYS + CONT
COMPONENT CODE NOT APPLICABLE
SUBCOMPONENT NOT APPLICABLE
PERSONNEL ERROR
LICENSED & SENIOR OPERATORS
ITEM NOT APPLICABLE

05000289 011278
78-002/011-0 012678
020296 2-WEEK
B+W

ADVISOR ROOM. CONTINUOUS FIRE WATCH NOT ESTABLISHED UNTIL 54 HOURS LATER.
ABOUT 18 HOURS AFTER ES-V156 OPENED, AND CONTINUOUS FIRE WATCH SECURED.
DISCOVERED IN ISOLATION VALVE INSTALLED AS PART OF MODIFICATION WAS CLO
SED. ISOLATING THE B FOR ROOM. INCIDENTS WERE IN VIOLATION OF 1.5. 3.19.
3. ADEQUATE FIRE PROTECTION WAS PROVIDED, AND NO THREAT TO HEALTH AND S
AFETY OF PUBLIC RESULTED.

PERSONNEL ERRORS. CONTINUOUS FIRE WATCH ESTABLISHED UPON DETERMINATION 0
F VIOLATIONS. PROCEDURAL GUIDANCE, WHICH SHOULD PREVENT RECURRING OF EV
ENTS IS PROVIDED IN ADMIN PROC AP 1001. THE REQUIREMENTS OF THE FIRE PLO
T T.S. TO BE REVIEWED BY SHIFT SUPERVISORS, SHIFT FOREMAN AND OPERATORS.

THREE MILE ISLAND-1
REAC COOL CLEANUP SYS + CONT
VALVES
BALL
DESIGN/FABRICATION ERROR
DESIGN
ALOYCO, INC.

05000289 011778
78-004/031-0 020378
020294 30-DAY
B+W

CLOSING MU-V74A TO ISOLATE MU-VIA FOR REPAIRS, 22 GPM PACKING GLAND LEAK
DEVELOPED. LEAK LASTED ABOUT 12 MIN BEFORE VALVE PLACED ON BACKSEAT. SI
MILAR EVENTS: 77-31/31. REPORTABLE PER T.S. 6.9.2.8(2). UNDER LCD T.S. 3
1.6.1. ALSO REPORTABLE PER 10 CFR 20.403 (8) (2). SINCE CONC EXCEEDED 5
00 TIMES VALUES SPECIFIED IN APPENDIX B, TABLE II, COLUMN 2, LEAKAGE ADJ
TED TO LWDS FOR PROCESSING. NO THREAT TO HEALTH/SAFETY OF PUBLIC.

HORN PACKING IN THE VALVE. AFTER LEAK NOTED, VALVE PLACED ON BACKSEAT. O
N 1/18/78 PACKING REPLACED. SIZE: 3 INCH; MODE OF ACTUATION: MANUAL; PEM
DIE HANDHELD BODY MATERIAL: SS; DESIGN PRESSURE: 3050 PSI; NUCLEAR CLA
SS: II; SEISMIC CLASS: I.

THREE MILE ISLAND-1
EMERG CORE COOLING SYS + CONT
COMPONENT CODE NOT APPLICABLE
SUBCOMPONENT NOT APPLICABLE
DEFECTIVE PROCEDURES
NOT APPLICABLE
ITEM NOT APPLICABLE

05000289 011978
78-005/011-0 020278
020293 2-WEEK
B+W

AT PLANT OPERATION REVIEW COMMITTEE MEETING 1/19/78, DETERMINED CONTAINM
ENT INTEGRITY, DEFINED BY T.S. 1.7, HAD BEEN VIOLATED. BS-V47A/B WERE OP
ENED DURING THE BS PUMP OPERABILITY TEST, OPERATING PROCEDURE OP1004-5,
AND 1ST TEST 1300-3A, REPORTABLE PER T.S. 6.9.2.8(2). BECAUSE BS-V30A/B
PREVENTED ACTUAL FLOW FROM THE R.B. TO THE AUX. BUILDING, NO THREAT TO H
EALTH AND SAFETY OF PUBLIC.

OPERATING PROCEDURE OP1004-5 AND 1ST TEST 1300-3A ALLOW OPENING OF BS-V4
7A/B WHEN THE BS PUMP OPERATING TO PREVENT SPRAYING R.B. SHOULD LEAKAGE
THROUGH BS-V1A/B OCCUR. TCN NOTED IN 24-HOUR TELEGRAM TERMINATE OPERATIO
N OF BS-V47A/B NOT NEEDED. OP1101-3 TO BE REVISED TO PERMIT OPENING BS-V

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CAUSE/SUBCODE/
COMPONENT MANUFACTURER

DOCKET NO./
LER NO./
CONTROL NO./REPORT DATE/
NSS

EVENT DATE/
EVENT DESCRIPTION/
CAUSE DESCRIPTION

THREE MILE ISLAND-1
REACTIVITY CONTROL SYSTEMS
CONTROL RODS
SUBCOMPONENT NOT APPLICABLE
OTHER
NOT APPLICABLE
ITEM NOT APPLICABLE

05000289
78-007631-0
023323
B+W

AT 50% POWER TO PERFORM TURBINE STOP VALVE TESTING AND MANEUVER CONTROL
RODS TO ALL OUT CONFIGURATION INCORE QUADRANT POWER TILT LIMIT +2.6%
5 EXCEEDED VIOLATING T.S. 3.5.2.6.A. REACTOR POWER WAS BELOW LIMITS OF
3.5.2.4.D AND ACTION REQUIREMENTS OF 3.5.2.4.D AND E WERE SATISFIED. NO
THREAT TO PUBLIC HEALTH AND SAFETY. OTHER EVENTS OF THIS TYPE: 77-28/
11.

THREE MILE ISLAND-1
SYSTEM CODE NOT APPLICABLE
COMPONENT CODE NOT APPLICABLE
SUBCOMPONENT NOT APPLICABLE
DEFECTIVE PROCEDURES
NOT APPLICABLE
ITEM NOT APPLICABLE

05000289
78-0087011-0
020443
B+W

QUADRANT POWER TILT TRANSIENT APPEARS TO HAVE BEEN CAUSED BY TRANSIENT P
OWER OPERATIONS AND MANEUVERING TO ALL RODS OUT CONFIGURATION. TILT INC
REASED WHEN GROUP 7 CONTROL RODS WERE PAST 4% WITHDRAWN AND REACHED +2.
% WHEN RODS WERE AT 28% ROD INDEX. AS XENON BEGAN TO BURN OUT TILT 5%
RIED TO RETURN WITHIN LIMITS.
IN ACCORDANCE WITH A BAW RECOMMENDED OPERATING PROCEDURE, MI-1 HAS BEEN
FLOODING DWSG FEEDWATER NOZZLES DURING OPERATION BELOW 5% FULL POWER. T
HIS CONDITION WAS NOT ANALYZED IN THE FSAR AND IS THEREFORE REPORTABLE P
ER 6.9.2.A(9). BECAUSE THIS SITUATION OCCURS ONLY DURING STARTUP AND SHU
TDOWN, THE PROBABILITY OF A STEAM LINE BREAK OCCURRING AS ANALYZED.

THREE MILE ISLAND-1
REACTOR TRIP SYSTEMS
CIRCUIT CLOSERS/INTERRUPTERS
CIRCUIT BREAKER
COMPONENT FAILURE
MECHANICAL
OTHER

05000289
78-0097031-0
023622
B+W

WHEN MAIN STEAM LINE BREAK ANALYSIS ORIGINALLY PERFORMED, BAW RECOMMENDE
D 30% WATER LEVEL IN DISG'S AT LOW POWER LEVELS. AS BAW GAINED OPERATING
EXPERIENCE FLOODING OF FEEDWATER NOZZLES AT LOW POWER LEVELS RECOMMEND
ED TO PREVENT THERMAL SHOCKING OF NOZZLES. SHUTDOWN AND COOLDOWN PROCEDU
RES CHANGED TO PREVENT FLOODING NOZZLES WHEN BELOW 5% FULL POWER.
WORK BEING PERFORMED TO INVESTIGATE REPORTED SLAGGISH OPERATION OF D.C.
BREAKER CBS. BREAKER FAILED TO TRIP ON ONE OF SEVERAL TESTS. CORRECTIV
E ACTION TAKEN WITHIN TIME LIMITS REQUIRED IN SPEC 3.5.1.6. HOWEVER, TH
IS CONSTITUTED OPERATION IN A DEGRADED MODE AS REPAIRABLE PER T.S. 6.9.2
B(2). FAILURE OF BREAKER TO TRIP RESULTED IN LOSS OF REDUNDANCY. THIS
EVENT WOULD NOT HAVE PREVENTED A REACTOR TRIP.

THREE MILE ISLAND-1
EMERG CORE COOLING SYS + CONT
RELAYS
TIMER, SEQUENCER, T-5 CONTROL
COMPONENT FAILURE
MECHANICAL
GROVE WATER COND CO

05000289
78-0107011-0
020997
B+W

BREAKER FAILED DUE TO APPARENT BINDING OF OPERATING LINKAGE POSSIBLY DUE
TO INSUFFICIENT EXERCISE OF BREAKER AND/OR LACK OF MAINTENANCE. PROCE
DURE WILL BE CHANGED TO INCREASE NUMBER OF TIMES BREAKER TRIPPED ON EACH
TEST. BREAKER LINKAGE WAS CLEANED, EXERCISED, RETESTED, AND RETURNED TO
SERVICE.
DURING PERFORMANCE OF THE EMERGENCY SEQUENCE AND POWER TRANSFER TEST, TH
O MALFUNCTIONS OCCURRED THAT COULD HAVE PREVENTED FULFILLMENT OF THE FUN
CTIONAL REQUIREMENTS OF THE FSAR. THE 1A 1C MAKEUP PUMPS TRIPPED WHEN
TRANSFERRED TO THE ONSITE SOURCE. THE DIESEL GENERATORS FAILED TO STA
RT WHEN THE OIL PRESSURE LIMIT SWITCH FAILED TO OPERATE BEFORE THE CRANK
ING TIMED OUT. THIS EVENT IS REPORTABLE PER 6.9.2.A.

APPARENT CAUSE WAS A MALFUNCTIONING TIME DELAY RELAY IN LOW LUBE OIL TRI
P CIRCUIT. TIMERS WILL BE REPLACED. OPLS PRESSURE SWITCH ON THE DIESEL
DID NOT OPERATE BECAUSE OF DEFECTIVE PRESSURE SWITCHES. SWITCHES WILL
BE REPLACED WITH ONES FROM A DIFFERENT MANUFACTURER DURING 1978 REFUELIN
G OUTAGE

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THREE MILE ISLAND-1 MAIN STEAM SYSTEMS + CONTROLS HANGERS,SUPPORTS,SHOCK SUPPRESS SHUBBERS DESIGN/FABRICATION ERROR CONSTRUCTION/INSTALLATION BASIC ENGINEERS	05000289 78-011/031-0 021239 B+W	031878 041778 30-DAY	DURING VISUAL TESTING OF SHOCK AND SWAY SUPPRESSORS ONE SHUBBER, MS-201, HAD NO FLUID IN ITS RESERVOIR. THE LCO DURING THIS EVENT WAS 3.16.2. 1. INOPERABLE SHUBBER CAUSED INCREASE IN PROBABILITY OF STRUCTURAL DAMAGE TO PIPING RESULTING FROM SEISMIC OR OTHER POSTULATED EVENT WHICH INITIATES DYNAMIC LOADS. LIKELIHOOD OF SUCH AN EVENT IS VERY SMALL.
THREE MILE ISLAND-1 MAIN STEAM SYSTEMS + CONTROLS HANGERS,SUPPORTS,SHOCK SUPPRESS SHUBBERS DESIGN/FABRICATION ERROR CONSTRUCTION/INSTALLATION GRINNELL CORP.	05000289 78-012/031-0 021238 B+W	040678 050578 30-DAY	FLUID LOST DUE TO PINCHED ROD WIPER SEAL, PROBABLY DAMAGED DURING INSTALLATION. SHUBBER FAILED OPERABILITY TEST BECAUSE OF FLUID LEAKAGE. THE SEAL IS TO BE REPLACED & SHUBBER REFILLED & OPERABLE PRIOR TO REINSTALLATION AT END OF 1978 REFUELING OUTAGE. VISUAL TESTING FREQUENCY OF 12 MONTHS + 25% WILL BE MAINTAINED. DURING FUNCTIONAL TESTING OF SHOCK AND SWAY SUPPRESSORS ONE SHUBBER DHH-187 WOULD NOT LOCK UP UPON COMPRESSION. THE LCO DURING THE EVENT WAS 3.16.4. THE INOPERABLE SHUBBER COULD HAVE CAUSED INCREASE IN PROBABILITY OF STRUCTURAL DAMAGE TO THE PIPING RESULTING FROM SEISMIC OR OTHER POSTULATED EVENT WHICH INITIATES DYNAMIC LOADS. LIKELIHOOD OF SUCH AN EVENT IS VERY SMALL. SEE 78-11, 77-8, (CONT)
THREE MILE ISLAND-1 COOLANT RECIRC SYS + CONTROLS PUMPS OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 78-013/011-0 021237 B+W	041378 050978 2-WEEK	SPECIFIC REASON NOT DETERMINED. UPON DISASSEMBLY, TWO O-RINGS WERE FOUND DAMAGED. VALVE BLOCK REPLACED AND TEST MADE PURSUANT TO T.S. ADDITIONAL 10 SHUBBERS FUNCTIONALLY TESTED SATISFACTORILY. SHUBBER DATA: STRIKE; 5 IN. BORE; 3/4 IN. MODEL BE411.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE CONTROL RODS SUBCOMPONENT NOT APPLICABLE PERSONNEL ERROR LICENSED & SENIOR OPERATORS BABCOCK & WILCOX COMPANY	05000289 78-015/011-0 021615 B+W	050278 051578 2-WEEK	SHUTDOWN FOR REFUELING, BAW INFORMED MET ED THAT SMALL BREAK ON RC PUMP DISCHARGE NOT PREVIOUSLY ANALYZED IN FSAK. BREAK, COMBINED WITH SINGLE FAILURE OF ONE D.G., AND LOSS OF OFFSITE POWER COULD RESULT IN FUEL TEMPERATURE EXCEEDING ECCS LIMITS. EVENT IS REPORTABLE PER T.S. 6.9.2.A (9). DUE TO LOW PROBABILITY OF EVENTS OCCURRING SIMULTANEOUSLY NO THREAT TO HEALTH AND SAFETY OF PUBLIC. BAW STATED THAT REVIEW OF METHODS FOR COMPUTER MODELING OF PRIMARY LOOP SHOWS NEW "WORST CASE" LOCATION OF SMALL BREAK LOCA. CORRECTIVE ACTION INCLUDES REVISING PROCEDURES TO DETAIL OPERATORS RESPONSE AND TRAIN OPERATORS TO RECOGNIZE SYMPTOMS AND RESPOND TO SMALL BREAK LOCA. DURING INITIAL CYCLE 4 STARTUP INCREASING POWER TO 40% CONTROL RODS WERE POSITIONED IN RESTRICTED REGION OF T.S. FIGURE 3.5-2A. CORRECT ROD INDEX LIMIT CURVE WHICH HAD BEEN INCORPORATED INTO OPERATING PROCEDURES AS A TEMPORARY CHANGE NOTICE WAS NOT BEING USED. CONTROL RODS HAD BEEN IN THE NOT ALLOWED REGION OF T.S. FIGURE 3.5-2A FOR NINE HOURS.

EVENT CAUSED BY USE OF ROD INDEX LIMIT CURVE LABELED FOR CYCLE 4, 0-125 EFPD INSTEAD OF THE REVISED CYCLE 4, 0-125 EFPD ROD INDEX LIMIT CURVE.

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THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 78-016/011-0 021014 B+W	050578 051778 2-WEEK	ON COMPLETION OF BOUNDING ANALYSIS FOR PEAK RCS PRESSURE FOLLOWING A FEE DRIER LINE BREAK ACCIDENT VS. HIGH PRESSURE TRIP SETPOINT CONSERVATIVE DOPPLER COEFFICIENT AND VARYING MODERATOR COEFFICIENTS. BAW IDENTIFIED F OR CYCLE 4 PARAMETERS THAT PEAK RCS PRESSURE EXCEEDED MAXIMUM ALLOWABLE P RESSURE OF 2750 PSIG BY ABOUT 4.4 PSIG. REPORTABLE PER T.S. 6.2.4(8). NO THREAT TO HEALTH AND SAFETY OF PUBLIC. PRIMARILY RESULT OF ASSUMING LARGER INSTRUMENT ERROR ASSOCIATED WITH PRE SSURE SENSOR. ORIGINAL ANALYSIS ASSUMED AN INSTRUMENT ERROR OF 30 PSI. REANALYSIS ASSUMED INSTRUMENT ERROR OF 45 PSI TO ACCOUNT FOR POSSIBLE SE NSOR DEGRADATION UNDER ACCIDENT ENVIRONMENT.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE INSTRUMENTATION + CONTROLS SENSOR/DETECTOR/ELEMENT OTHER NOT APPLICABLE BELLFAB/BAILEY METER CO.	05000289 78-017/011-0 021236 B+W	050578 051978 2-WEEK	IN ACCORDANCE WITH T.S. 6.9.2.4(8), WE REPORT AN ERROR DISCOVERED IN UNC ERTAINTIES FOR MEASUREMENTS OF IMBALANCE AND QUADRANT POWER TEST PERFORM ED BY INCORE DETECTOR SYSTEM WHICH COULD HAVE PERMITTED REACTOR OPERATIO N LESS CONSERVATIVE THAN ASSUMED IN SAR. DUE TO OTHER CONSERVATISMS IN PEAKING ANALYSIS, UNLIKELY THAT LOCAL LIMITS WOULD BE VIOLATED EVEN IN UN LIKELY LOSS OF COOLANT ACCIDENT.
THREE MILE ISLAND-1 MAIN STEAM SUPPLY SYS + CONT HANGERS,SUPPORTS,SHOCK SUPPRESS OTHER DESIGN/FABRICATION ERROR CONSTRUCTION/INSTALLATION UNITED ENG. & CONSTRUCT., INC.	05000289 78-018/011-0 021613 B+W	051978 060278 2-WEEK	NOT INFORMED BY BAW THAT A STUDY OF INCORE DETECTOR DATA FROM OPERATING BIW REACTORS HAD DETERMINED THAT MEASUREMENT INACCURACIES OF INCORE DETE CTOR SYSTEM ARE GREATER THAN ORIGINALLY ASSUMED. PROCEDURE CHANGES WITH REDUCED TILT LIMITS HAVE BEEN IMPLEMENTED. T.S. CHANGE HAS BEEN SUBMIT TED. INSPECTING RELIEF VALVE PIPING, A/E'S FIELD ENGINEERS DISCOVERED 2 RESTRA INTS NOT INSTALLED ON EMERGENCY FEED PUMP TURBINE MAIN STEAM SUPPLY LIN E RELIEF VALVES PIPING DRAWING. IF MS-V22A/B REQUIRED TO ACTIVATE DUE T O TRANSIENT OR FAILURE, FAILURE OF RELIEF DISCHARGE FLEXIBLE CONNECTION COULD RESULT. POTENTIALLY UNSAFE CONDITION WOULD OCCUR IN EVENT OF FIRE REQUIRING EVACUATION OF CONTROL ROOM CONCURRENT WITH DISCHARGE LINE FAI LURE. RELIEF DISCHARGE RESTRAINTS NOT INSTALLED DURING CONSTRUCTION AS REQUIRE D. IMMEDIATE CORRECTIVE ACTION: RESTRICT NONESSENTIAL ACCESS TO RELIEF VALVE AREA AND INITIATE ENGINEERING DESIGN OF PROPER RESTRAINTS. EACH OPERATING SHIFT ADVISED OF EMERGENCY ACTION TO ISOLATE SUCH A FAILURE.
THREE MILE ISLAND-1 AIR COND,HEAT,COOL,VENT SYSTEM RELAYS OTHER COMPONENT FAILURE ELECTRICAL OTHER	05000289 78-019/031-0 021954 B+W	060578 062278 30-DAY	PERFORMING SP 1503-5.1 REACTOR BLDG. COOLANT AND ISO SYS LOGIC CHANNEL 4 COMPONENT TEST CONTROL FUSE OPENED AND RB-W-7 DID NOT OPERATE. REACTOR BLDG. COOLING SYS IS A CLOSED SYS INSIDE REACTOR BLDG. THUS NO THREAT TO HEALTH AND SAFETY OF PUBLIC EXISTED WHILE VALVE WAS OUT OF SERVICE. REPORTABLE PER T.S. 6.9.2.8.(2) AND REPRESENTS DEGRADED MODE UNDER T.S. 3.6.6. LER 77-14 REPORTED A SIMILAR EVENT. VALVE FAILED DUE TO BLOWN FUSE IN CONTROL CIRCUIT. VOLTAGE SENSE SUPPRE SSION (THYRECTOR) ACROSS THE COIL OF AN AUXILIARY PUMP FAILED CAUSING S HORT CIRCUIT. THYRECTOR REPLACED AND VALVE FUNCTIONED AS DESIGNED. VAL VE RETURNED TO FULL OPERABILITY WITHIN 24 HOURS.

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THREE MILE ISLAND-1 REACTIVITY CONTROL SYSTEMS CONTROL ROD DRIVE MECHANISMS SUBCOMPONENT NOT APPLICABLE COMPONENT FAILURE ELECTRICAL DIAMOND POWER SPECIALTY CORP.	05000289 78-020/01T-0 021953 B+W	061478 062878 2-WEEK	SEVEN OF NINE CONTROL RODS IN GROUP 3 INADVERTANTLY DROPPED INTO CORE RESULTING IN OPERATION WITH MORE THAN ONE INOPERABLE ROD PER T.S. 4.7.1.2. VIOLATION OF T.S. 3.5.2.2.A. AND ROD INDEX LIMITS OF T.S. 3.5.2.5.E. DURING FOLLOWING TRANSIENT QUADRANT POWER TILT LIMIT OF T.S. 3.5.2.4.A.W AS EXCEEDED BUT RETURNED TO ACCEPTABLE VALUE IN FOUR HOURS. POWER REDUCED TO 40% IMMEDIATELY AND CONTROL ROD ASYMMETRY CLEARED IN ONE HOUR WITH SHUTDOWN MARGIN ABOVE 1% DELTA K/K. DROPPED RODS CAUSED BY SHORTED DIODE IN DC HOLD SECONDARY POWER SUPPLY. SHORTED DIODE AND BLOWN FUSES CAUSED LOW VOLTAGE FROM SECONDARY SUPPLY. WHEN TRIP BREAKERS FOR MAIN SUPPLY TESTED DURING RPS SURVEILLANCE, ROD S DROPPED BECAUSE OF LOW VOLTAGE. FUSES AND DIODE REPLACED AND OUTPUT WAVE FORMS CHECKED.
THREE MILE ISLAND-1 EMERG GENERATOR SYS + CONTROLS VALVES OTHER PERSONNEL ERROR LICENSED & SENIOR OPERATORS ITER NOT APPLICABLE	05000289 78-022/03L-0 022054 B+W	072378 081178 30-DAY	DISCOVERED AT 1452 A EMERGENCY DIESEL GENERATOR AIR VALVE HAD BEEN TAGGED SHUT AT 1415 DURING IAC SYS MAINTENANCE RENDERING A DIESEL INOPERABLE. CONTRARY TO TS 3.7.2.C. REDUNDANT DIESEL WAS NOT IMMEDIATELY TESTED. REPORTABLE PER TS 6.9.2.9.(3). DIESEL WAS SUCCESSFULLY TESTED. A DIESEL WAS RETURNED TO SERVICE UPON COMPLETION OF ITS REQUIRED SURVEILLANCE. NO THREAT TO HEALTH AND SAFETY OF THE PUBLIC.
THREE MILE ISLAND-1 REACTIVITY CONTROL SYSTEMS CONTROL RODS SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE ITER NOT APPLICABLE	05000289 78-023/03L-0 022384 B+W	080578 083078 30-DAY	CAUSE FOR TAGGING OUT A DIESEL WITHOUT TESTING B DIESEL WAS PERSONNEL ERROR. ALL PERSONNEL HAVE BEEN INFORMED OF THEIR IMPROPER ACTIONS. ALL OPERATIONS DEPARTMENT PERSONNEL HAVE BEEN REBRIEFED ON IMPORTANCE OF PROPER TESTING OF REDUNDANT ES SYSTEMS.
THREE MILE ISLAND-1 REACTOR VES. + APPURTENANCES VESSELS/PRESSURE REACTOR VESSEL DESIGN/FABRICATION ERROR MANUFACTURING BABCOCK & WILCOX COMPANY	05000289 78-024/01T-0 022053 B+W	080778 082178 2-WEEK	DURING A POWER REDUCTION TO 65% FULL POWER FOR TURBINE STOP VALVE TESTING, THE INCORE DETECTOR QUADRANT POWER TILT LIMIT OF 3.64% WAS EXCEEDED FOR A TOTAL OF FIFTY MINUTES IN VIOLATION OF T.S. 3.5.2.4.A. REPORTABLE PER T.S. 6.9.2.B(2). THE MAXIMUM TILT EXPERIENCED WAS +3.79%. THE TILT WAS RETURNED WITHIN LIMITS BEFORE POWER WAS INCREASED ABOVE 75% FULL POWER.

TILT TRANSIENT CAUSED BY COMBINATION OF XENON BUILDUP AND CONTROL ROD INSERTION ASSOC. WITH PLANNED REDUCTION TO 65% FULL POWER. SINCE POWER AIR FLOW BELOW POWER LEVEL CUTOFF NO IMMEDIATE CORRECTIVE ACTION REQUIRED. XENON BURNOUT AND ROD WITHDRAWAL ASSOC. WITH RETURNING POWER TO 75% REDUCED TILT TO ALLOWABLE.

DET-ED RECEIVED NOTIFICATION FROM B+W THAT WELD FILLER WIRE ATYPICAL OF WIRE SPECIFIED BY B+W MAY HAVE BEEN USED IN CONSTRUCTION OF THE TMI-1 REACTOR VESSEL. REPORTABLE PER T.S. 6.9.2.A.(9). THE STRUCTURAL INTEGRITY OF THE VESSEL IS NOT COMPROMISED AND NO THREAT TO PUBLIC HEALTH AND SAFETY IS INVOLVED.

ATYPICAL WELD WIRE WAS UNKNOWNLY MIXED BY THE SUPPLIER IN A SHIPMENT OF WIRE TO B+W. B+W DISCOVERED THIS CONDITION DURING CHEMICAL ANALYSIS OF ARCHIVE WELDMENTS. WHILE A REVISED TECH SPEC IS BEING PREPARED, PRELIMINARY INFORMATION SUPPLIED BY B+W WILL BE USED TO GOVERN P-T HEATUP & C

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THREE MILE ISLAND-1 AIRBORNE RADIOACT MONITOR SYS PUMPS OTHER PERSONNEL ERROR NONLIC. OPERATIONS PERSONNEL ITEM NOT APPLICABLE	05000289 78-025/011-0 022353 B+W	031978 033078 2-WEEK	FOR A PERIOD OF TIME FROM 0440 HOURS ON 18 AUGUST 1978 UNTIL 1400 HOURS ON 19 AUGUST 1978, NEITHER OF THE TWO INSERVICE NUCLEAR RIVER PUMPS WAS SELECTED TO START ON AN E.S. SIGNAL. THIS IS A VIOLATION OF T.S. 3.3 AND REPORTABLE PER T.S. 6.9.2.A. THE CONSEQUENCE OF THIS ERROR IS THAT THE PUMPS WOULD NOT HAVE AUTOMATICALLY RESTARTED FOLLOWING A POSTULATED ES CONDITION ACCOMPANIED BY A LOSS OF POWER. PERSONNEL ERROR DURING SWITCHING AND TAGGING FOR MAINTENANCE ON THE A HR WP STRAINERS. ON DISCOVERY NRWP CORRECTLY SELECTED FOR ES ACTUATION. ALL OPERATING PERSONNEL WILL BE BRIEFED AND PROCEDURE CHANGED ADDING ES SELECTOR SWITCH POSITIONS TO SWITCHING ORDERS.
THREE MILE ISLAND-1 CONTAINMENT ISOLATION SYS + CONT PENETRATIONS, PRIMARY CONTAINMENT PERSONNEL ACCESS COMPONENT FAILURE MECHANICAL CHICAGO BRIDGE & IRON COMPANY	05000289 78-026/031-0 022382 B+W	082078 091578 30-DAY	NORMAL OPERATION CONTRACTOR PERSONNEL LEAVING RX BLDG. INNER DOOR PERSONNEL ACCESS HATCH JAMMED OPEN. REPORTABLE PER T.S. 6.9.2.B.(2), DEGRADED MODE PER T.S. 3.6.1 AND 1.7F. LEAK RATE ON OUTER DOOR SATISFACTORY. SIMILAR PREVIOUS OCCURRENCE: LER 77-27 12/15/77. INNER DOOR OPEN FOR REPAIR LESS THAN 24 HRS. NO THREAT TO PUBLIC HEALTH AND SAFETY. A CAM FAILED DUE TO WORN AND MISADJUSTED DRIVE TRAIN COMPONENTS. CAM WAS REPLACED AND THE MECHANISM READJUSTED. THE COMPLETE MECHANISM IS TO BE REBUILT DURING THE 79 REFUELING OUTAGE.
THREE MILE ISLAND-1 POTABLE + SAN WATER SYS + CONT COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE DEFECTIVE PROCEDURES NOT APPLICABLE ITEM NOT APPLICABLE	05000289 78-020/041-0 023265 B+W	082278 083178 2-WEEK	ON AUGUST 22, 1978, A SAMPLE WAS TAKEN FROM THE TMI UNIT 1 NEUTRALIZED WASTE TANK (NPDES DISCHARGE #105) WHICH, WHEN ANALYZED, YIELDED A TOTAL SUSPENDED SOLIDS DISCHARGE OF 108.5 LBS./DAY EXCEEDING THE EFFLUENT LIMIT OF 73.4 LBS./DAY. AS DEGREE OF NONCOMPLIANCE IS NOT EXTREME AND POLLUTANT IS NOT TOXIC, NO SIGNIFICANT ENVIRONMENTAL DAMAGE EXPECTED. PRESENT OPERATING PROCEDURE REQUIRES SAMPLING DURING DISCHARGE OF NEUTRALIZED WASTE TANK FOR UNIT 1. WHILE DISCHARGE HAS NOT BEEN SOURCE OF REPEATED TSS VIOLATIONS, THE PROCEDURE WILL BE ALTERED TO REQUIRE SAMPLING AND ANALYSIS FOR TSS PRIOR TO FUTURE DISCHARGES. OPERATOR ACTION CAN THEN BE TAKEN TO AVOID REOCCURRENCE. DURING TRANSMITTER CALIBRATION ACTUAL LEVEL OF 12.42 FT. OF BORATED WATER IN THE B.C.F.T. WAS LESS THAN THE MINIMUM ALLOWABLE LEVEL OF 12.55 FT., THUS VIOLATING T.S. 3.3.1.2.A. NO THREAT TO PUBLIC HEALTH AND SAFETY.
THREE MILE ISLAND-1 ENGINEERED SAFETY FEATR INSTR SYS INSTRUMENTATION + CONTROLS SENSOR/DETECTOR/ELEMENT OTHER NOT APPLICABLE BAILEY METER COMPANY	05000289 78-027/011-0 022381 B+W	090178 091578 2-WEEK	A LEVEL TRANSMITTER CALIBRATION WAS BEING CONDUCTED DUE TO DIFFERENT LEVELS INDICATED ON REDUNDANT CHANNELS. WHEN IT WAS DETERMINED THAT THE CORRECT CHANNEL SHOWED THAT THE TANK WAS OUT OF SPECIFICATION, BORATED WATER WAS ADDED TO BRING THE TANK TO WITHIN T.S. LIMITS.

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THREE MILE ISLAND-1 OTHER ENGRD SAFETY FEATR SYS INSTRUMENTATION + CONTROLS TRANSMITTER COMPONENT FAILURE INSTRUMENT BAILEY METER COMPANY	05000289 78-028/011-0 022380 B+W	090878 092278 2-WEEK	NORMAL OPERATION CALIBRATING SODIUM HYDROXIDE TANK LEVEL TRANSMITTER XMT P IN REFUELING INTERVAL SURVEILLANCE. TANK CONTAINED 17,215 LB. SODIUM H YDROXIDE IN VIOLATION OF T.S. 3.3.1.3B. MAX ALLOWABLE 17,000 LB. EXCESS 215 LB. WOULD HAVE RAISED PH OF RX BLDG. SPRAY SOLUTION SLIGHTLY IF SPRAY REQUIRED TO MITIGATE A LOCAL. NO THREAT TO PUBLIC HEALTH AND SAFETY.
THREE MILE ISLAND-1 FIRE PROTECTION SYS + CONT COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE PERSONNEL ERROR LICENSED & SENIOR OPERATORS ITEM NOT APPLICABLE	05000289 78-029/011-0 022379 B+W	091473 092878 2-WEEK	LEAKY O-RINGS ALLOWED WATER TO PASS TO DRY SIDE OF XMT. REDUCED DELTA P CALIBRATION DRIFT RESULTED IN LOW XMT READING. O-RINGS REPLACED AND XMT RECALIBRATED. TANK LEVEL RETURNED TO SPEC IN 1 HR. PROPER XMT OPER ATION SURV. PROC. TO BE REVISED TO CLEAN XMT AND REPLACE O-RINGS ON RE FUELING INTERVAL DURING SURVEILLANCE TESTING, A TEMPERATURE SENSOR FOR THE "A" EMERGENCY DIESEL GENERATOR ROOM WAS FOUND TO BE INOPERABLE. IN VIOLATION OF T.S. 3.15.1, A FIRE WATCH WAS NOT ESTABLISHED WITHIN ONE HOUR. AND THIS IS RE PORTABLE PER T.S. 6.9.2.1(2).
THREE MILE ISLAND-1 LIQ RADIOACT WASTE MANAGEMENT SYS HEATERS, ELECTRIC SUBCOMPONENT NOT APPLICABLE COMPONENT FAILURE ELECTRICAL CHROMALOX	05000289 78-030/031-0 022654 B+W	092378 102078 30-DAY	PERSONNEL ERROR. CONTINUOUS FIRE WATCH ESTABLISHED ON DETERMINATION OF W VIOLATION. PROCEDURAL GUIDANCE PROVIDED IN ADMINISTRATIVE PROCEDURE AP 1 001 TO PREVENT RECURRENCE. REQUIREMENTS OF FIRE PROTECTION T.S. TO BE R EVIEWED BY SHIFT SUPERVISORS, FOREMEN AND OPERATORS.
THREE MILE ISLAND-1 POTABLE + SAN WATER SYS + CONT COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE PERSONNEL ERROR NONLIC. OPERATIONS PERSONNEL ITEM NOT APPLICABLE	05000289 78-022/041-0 023264 B+W	100578 101778 2-WEEK	DURING NORMAL OPERATIONS, WHILE CHECKING FOR THE CAUSE OF A MISCELLANEOU S EVAPORATOR HEATER BREAKER TRIP, BORATED WATER WAS FOUND IN THE HEATER TERMINAL BOX. REPORTABLE PER T.S. 6.9.2.8(4). SIMILAR EVENTS: 76-27 A ND 77-19. LEAKAGE WAS CONFINED TO TERMINAL BOX AND CONDUIT, THUS THE EV ENT POSED NO THREAT TO THE PUBLIC'S HEALTH AND SAFETY.
			CRUD BUILDUP IN EVAPORATOR TANK CAUSED A HOT SPOT TO DEVELOP IN THE HEAT ER ELEMENT, WHICH LED TO ELEMENT CLADDING RUPTURE. TANK WAS CLEANED, EL EMENT REPLACED, AND EVAPORATOR RETURNED TO SERVICE. FREQUENCY OF EVAPOR ATOR TANK CLEANING WILL BE INCREASED TO MINIMIZE CRUD BUILDUP.
			ON 10/5/78 PH OF THE INDUSTRIAL WASTE FILTER SYSTEM DISCHARGE WAS 11.7 EXCEEDING EIS RANGE LIMIT OF 6.0-9.0. PART OF THE NEUTRALIZER TANK DISCH ARGE REQUIRING ADDITIONAL TSS TREATMENT WAS ROUTED INSTEAD TO WATER TREA TMENT SUMP WHERE PH WAS INCREASED BEFORE RETURNING TO IWFS. PH MONITORS IN THE IWFS MALFUNCTIONED AND DIDN'T HALT IWFS DISCHARGE. DUTY PERSONN EL TOOK SAMPLE AND FOUND HIGH PH.
			OPERATOR FAILED TO FOLLOW DRAINING PROCEDURE CORRECTLY. EMPHASIS ON STR ICT ADHERENCE TO OPERATOR PROCEDURES WILL BE INCREASED. PH MONITOR WILL BE CHECKED MORE OFTEN TO ENSURE PROPER OPERATION.

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THREE MILE ISLAND-1 POTABLE + SAN WATER SYS + CONT INSTRUMENTATION + CONTROLS SENSOR/DETECTOR/ELEMENT COMPONENT FAILURE INSTRUMENT ITEM NOT APPLICABLE	05000289 78-023/041-0 023276 B+W	102678 110678 2-WEEK	ON 10/26/78, AN INDUSTRIAL WASTE FILTER SYSTEM DISCHARGE SAMPLE HAD PH OF 9.4, EXCEEDING NPDES DISCHARGE 104 PERMIT LIMIT RANGE OF PH 6.0 - 9.0. ESTIMATED THAT NO MORE THAN 6000 GALLONS WERE DISCHARGED BEFORE EFFLUENT RELEASE WAS TERMINATED. BECAUSE PH VIOLATION WAS NOT EXTREME AND DISCHARGE WAS QUICKLY HALTED, NO SIGNIFICANT ENVIRONMENTAL IMPACT EXPECTED.
THREE MILE ISLAND-1 POTABLE + SAN WATER SYS + CONT COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 78-023/041-0 023275 B+W	112078 121978 30-DAY	ON 11/20/78 A SAMPLE OF INDUSTRIAL WASTE FILTER SYSTEM DISCHARGE HAD A 9.11 PH, EXCEEDING THE NPDES DISCHARGE 104 LIMIT OF 9.0 AS DEGREE OF NON-COMPLIANCE NOT EXTREME, NO SIGNIFICANT ENVIRONMENTAL IMPACT EXPECTED.
THREE MILE ISLAND-1 CIRCULATING WATER SYS + CON COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE EXTERNAL CAUSE NOT APPLICABLE ITEM NOT APPLICABLE	05000289 78-031/041-0 023263 B+W	120478 121578 2-WEEK	MODIFICATIONS TO PH CONTROL SYSTEM ARE NOT COMPLETED AND MIGHT HAVE CAUSED EVENT. PROBLEMS WITH ORIGINAL DESIGN ARE BEING CORRECTED. REMAINING WORK ON PH INSTRUMENTATION AND ACID FEED PUMPS SHOULD BE COMPLETED IN 3 WEEKS.
THREE MILE ISLAND-1 RESIDUAL HEAT REMOV SYS + CONT PUMPS AXIAL COMPONENT FAILURE MECHANICAL PEERLESS PUMP CO	05000289 79-001/031-0 025003 B+W	010779 013079 30-DAY	DURING NORMAL STATION OPERATION, AMBIENT ENVIRONMENTAL CONDITIONS CAUSED STATION RIVER WATER DISCHARGE DELTA TEMPERATURE LIMIT OF 12 DEGREES F. TO BE EXCEEDED BY 2 DEGREES F. FOR 2.5 HOURS, VIOLATING TMI-1 (TS 2.1.8.1) AND TMI-2 (ETS 3.1.1.A(1)). NO THREAT TO PUBLIC HEALTH AND SAFETY. REPETITIVE: SEE 77-20, 77-05, 77-02, 76-28, 76-09, 78-08, 77-07, 74-08, 74-01.
			EVENT WAS CAUSED BY HIGH RELATIVE HUMIDITY AND AMBIENT AIR TEMPERATURE IN COMBINATION WITH LOW AMBIENT RIVER TEMPERATURE WHICH CAUSED A HEATING, RATHER THAN COOLING, OF THE STATION RIVER DISCHARGE BY THE MECHANICAL DRAFT COOLING TOWERS (MDCT). TO MINIMIZE THIS EFFECT, MDCT'S WERE SHUT DOWN.
			WHILE PERFORMING ISI TESTING ON DECAY HEAT RIVER WATER PUMP 1A THE VIBRATION LEVEL WAS FOUND TO BE WITHIN REQUIRED ACTION RANGE PER ASME SECTION XI, AND DRP-1A WAS DECLARED INOPERABLE, CONSTITUTING OPERATION IN A DEGRADED MODE PERMITTED BY T.S. 3.3.2. REDUNDANT PUMP DR-P1B WAS OPERABLE AND THIS EVENT HAD NO EFFECT ON PUBLIC HEALTH AND SAFETY. REPORTABLE PER T.S. 6.9.2.B(2).
			VIBRATION WAS APPARENTLY DUE TO UNBALANCE CAUSED BY A RAD IN THE PUMP SECTION FURTHER PERTURBED BY WEAR OF SHAFT SLEEVES. PUMP AND MOTOR WERE REPLACED AND VERIFIED OPERABLE WITHIN 72-HOUR T.S. REQUIREMENT. NEW ISI REFERENCE DATA WAS ESTABLISHED PER ASME SECTION XI REQUIREMENTS.

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THREE MILE ISLAND-1 EMERG CORE COOLING SYS + CONT VALVE OPERATORS ELECTRIC MOTOR - AC COMPONENT FAILURE OTHER RELiance ELEC. & ENGINEERING	05000289 79-002/03L-0 025505 B+W	011279 020279 30-DAY	PERFORMING SURVEILLANCE PROCEDURE 1303-5.2, LOADING SEQUENCE AND COMPONE NT TEST AND MPI LOGIC CHECK DH-V-5B MOTOR BREAKER TRIPPED WHEN ACTUATION SIGNAL WAS APPLIED TO OPEN VALVE FROM ITS MID-POSITION. EVENT CONSIDER ED DEGRADED MODE IN ACCORDANCE WITH T.S. 3.3.1.5 AND REPORTABLE PER T.S. 6.9.2.B.(2). SINCE VALVE IS NORMALLY OPEN AND REDUNDANT VALVE DH-V-5A WAS OPERABLE EVENT POSED NO THREAT TO THE PUBLIC H/S. NO PREVIOUS SIMI LAR EVENTS. THIS EVENT WAS CAUSED BY THE MOTOR BRAKE (DINGS MODEL 6-71010-29) NOT KE LEASING. FOLLOWING MANUAL RELEASE, THE MOTOR OPERATED VALVE WAS SUCCESS FULLY CYCLED SEVERAL TIMES. THE BRAKE WILL BE INSPECTED BY MARCH 31, 19 79.
THREE MILE ISLAND-1 EMERG GENERATOR SYS + CONTROLS ENGINES, INTERNAL COMBUSTION SUBCOMPONENT NOT APPLICABLE DEFECTIVE PROCEDURES NOT APPLICABLE FAIRBANKS MORSE	05000289 79-004/03L-0 025502 B+W	021779 031479 30-DAY	PERFORMING EMERGENCY LOADING SEQUENCE AND POWER TRANSFER TEST EMERGENCY DIESEL EG-Y-1B TRIPPED ON OVERSPEED. EVENT REPORTABLE PER T.S. 6.9.2(B) 2. REDUNDANT COMPONENT EG-Y-1A WAS OPERABLE. OFF SITE POWER WAS AVAILAB LE, AND REACTOR WAS SHUT DOWN AT THE TIME. EVENT HAD NO EFFECT ON PUBLI C HEALTH OR SAFETY.
THREE MILE ISLAND-1 EMERG CORE COOLING SYS + CONT MOTORS SUBCOMPONENT NOT APPLICABLE COMPONENT FAILURE ELECTRICAL WESTINGHOUSE ELECTRIC CORP.	05000289 79-003/03L-0 025503 B+W	021779 030979 30-DAY	GOVERNOR DID NOT SHUT OFF FUEL WHEN SET SPEED REACHED, ALLOWING OVERSPEE D ON START. LEAKAGE APPARENTLY MISADJUSTED FOLLOWING 2/14/79 GOVERNOR R EPLACEMENT. MAINTENANCE PROCEDURE WILL BE REVISED TO PROVIDE MORE DETAI LED INSTALLATION AND ADJUSTMENT INSTRUCTIONS. COLT INDUSTRIES DIESEL MO DEL 3800TDS, 3 MW. WOODWARD GOVERNOR TYPE UG-8. DURING POST SHUT DOWN OPERATIONS, WHILE PERFORMING EMERGENCY SEQUENCE AN D POWER TRANSFER TEST, HIGH PRESSURE INJECTION PUMP MU-P-1C TRIPPED ON O VERLOAD. REDUNDANT COMPONENT MU-P-1A WAS OPERABLE AND HEALTH AND SAFETY OF THE CLIC WAS NOT AFFECTED. THIS EVENT IS REPORTABLE AS OPERATION IN A F ED MODE PER 6.9.2.B(2).
THREE MILE ISLAND-1 RESIDUAL HEAT REMOV SYS + CONT VALVES GATE COMPONENT FAILURE MECHANICAL WALNORTH CO.	05000289 79-005/03L-0 025501 B+W	022579 032279 30-DAY	CAUSE FOR TRIP WAS A FAILED LEAD THAT CONNECTS SECTIONS OF WINDING INTER NAL TO MOTOR. LEAD WAS REPAIRED AND RE-INSULATED. MEGGER AND PHASE RES ISTANCE TESTS WERE PERFORMED AND RESULTS WERE SATISFACTORY. WESTINGHOUS E MOTOR TYPE CSP, 3 PHASE, 4000 V, FRAME 688.55, 700 HORSEPOWER.
			DURING THE REFUELING OUTAGE PERFORMING LEAKAGE SURVEILLANCE ON DECAY HEA T REMOVAL SYSTEM TOTAL MEASURED LEAKAGE OF 8.9 GAL/HR. EXCEEDED T.S. SEC TION 4.5.4.1, LIMIT OF 6.0 GAL/HR. EVENT REPORTABLE PER T.S. SECTION 6. 9.2.B(4).
			EXCESSIVE LEAKAGE FROM VALVE PACKING GLANDS IN VALVES DH-V-15 A/B, DH-V- 6A, DH-V-5A AND BS-V-1B. BORDN WAS REMOVED FROM VALVE GLANDS AND PACKIN G GLANDS WERE ADJUSTED. LEAKAGE WAS VERIFIED WITHIN T.S. LIMITS.

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THREE MILE ISLAND-1 CONTINUIT ISOLATION SYS + CONT VALVES GATE COMPONENT FAILURE MECHANICAL VELAN VALVE CORP.	05000289 79-006/031-0 025662 B+W	022879 032679 30-DAY	DURING REFUELING LOCAL LEAK RATE TESTING, VALVE CA-V58 DID NOT FULLY CLOSE SEAT, WHEN ADDED TO RUNNING TOTAL FROM OTHER SE. RESULTING LEAKAGE WAS A VIOLATION OF T.S. 4.4.1.2.3 CRITERIA AND IS REPORTABLE PER T.S. 6.9.2.3. THE REDUNDANT VALVE CA-V48 WAS OPERABLE AND HAD SATISFACTORY RESULTS. SIMILAR EVENT: LER 76-19/31. THIS EVENT HAD NO EFFECT ON THE PUBLIC HEALTH OR SAFETY.
THREE MILE ISLAND-1 CONTINUIT ISOLATION SYS + CONT VALVES BUTTERFLY COMPONENT FAILURE MECHANICAL PRATT, HENRY CO.	05000289 79-008/031-0 025993 B+W	031079 042679 30-DAY	DURING PACKING GLAND, STEM STRAIGHTENED AND VALVE SATISFACTORILY TESTED. VELAN 1 IN. 600 LB. GATE VALVE MODEL W5-2543-13MS W/KIELEY & CO. WILL BE POSTED NEAR CA-V58 AND SIMILAR VALVE DURING REFUELING FREQUENTLY LOCAL LEAK RATE TESTING, EXCESSIVE LEAKAGE ACROSS VALVE AH-V16 CAUSED UNIT SHUT DOWN FOR REFUELING. REDUNDANT VALVE AH-V1A WAS OPERABLE PER T.S. 6.9.2.3. THEREFORE, HAD NO ADVERSE EFFECT ON THE PUBLIC HEALTH OR SAFETY.
THREE MILE ISLAND-1 EMERG CORE COOLING SYS + CONT VALVES DIAPHRAGM COMPONENT FAILURE MECHANICAL ANDERSON, GREENWOOD & CO.	05000289 79-007/011-0 025994 B+W	032379 042679 2-WEEK	THE LEAKAGE ACROSS AN V16 APPARENTLY CAUSED BY LOOSE VALVE SEAT RETAINING SCREWS. PRATT MODEL 48" 1250 BUTTERFLY W/LIMITORQUE OPERATOR. SEAT SCREWS TIGHTENED. LEAKAGE WILL BE RECHECKED FOLLOWING TMI-1 CYCLE 5 STARTUP AND AGAIN FOLLOWING FIRST COLD SHUTDOWN. REPAIR TANK DISCOVERED PARTIALLY COLLAPSED. REPORTABLE PER T.S. 6.9.2.3. IN THAT REMEDIAL ACTION WAS DEEMED NECESSARY TO PREVENT DEVELOPMENT OF AN UNSAFE CONDITION, I.E., POSSIBLE VACUUM INDUCED TANK COLLAPSE DUE TO BUST DRAWDOWN ASSOCIATED WITH ES ACTUATION. EVENT POSED NO THREAT TO THE PUBLIC HEALTH OR SAFETY.
THREE MILE ISLAND-1 SPENT FUEL POOL COOL + CLEANUP PIPES, FITTINGS 6 TO 10 INCHES DESIGN/FABRICATION ERROR CONSTRUCTION/INSTALLATION GRINNELL INDUSTRIAL PIPING, INC.	05000289 79-011/011-0 025997 B+W	040579 051679 30-DAY	VACUUM BREAKER DH-V27 (ANDERSON-GREENWOOD 8" MODEL 930810 RS) APPARENTLY DID NOT RELIEVE DIFFERENTIAL PRESSURE WHEN REQUIRED. DH-V27 WAS SUCCESSFULLY BENCH-TESTED AND INSTALLED. BUST MANWAY COVER WAS MODIFIED TO PROVIDE POSITIVE VENT TO ATMOSPHERE. BUST STRUCTURAL INTEGRITY AND FUNCTIONAL ADEQUACY EVALUATED AND FOUND ACCEPTABLE. DURING A ROUTINE TOWN HALL MEETING, THE AUXILIARY BUILDING, SPENT FUEL POOL COOLING SYSTEM PIPING WAS DISCOVERED TO BE LEAKING. SUBSEQUENT INSPECTIONS IDENTIFIED AN ADDITIONAL LEAK IN THE SYSTEM PIPING. THIS EVENT, REPORTABLE PER T.S. 6.9.2.3, POSED NO THREAT TO THE HEALTH AND SAFETY OF THE PUBLIC.
			PRELIMINARY METALLURGICAL ANALYSIS INDICATES CAUSE TO BE INTERGRANULAR STRESS CORROSION CRACKING. AFFECTED AREAS OF PIPING WILL BE RADIOGRAPHED AND PROPER PIPE SUPPORTING. A FOLLOWUP REPORT WILL BE PROVIDED.

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THREE MILE ISLAND-1 MAIN STEAM SYSTEMS + CONTROLS VALVES GLOBE DEFECTIVE PROCEDURES NOT APPLICABLE FISHER GOVERNOR	05000289 79-009/03L-0 025995 B+W	041079 050279 30-DAY	ON 3/27/79 PERFORMING ROUTINE SURVEILLANCE TESTING ON TURBINE-DRIVEN EMERGENCY FEED PUMP. STEAM REGULATING VALVE MS-V6 FOUND CLOSED PREVENTING EMERGENCY FEED PUMP TURBINE OPERATION FROM MAIN STEAM LINES IN VIOLATION OF TS 3.4.2. REPORTABLE PER 6.9.2 B(3). AUX STEAM AVAILABLE TO TURBINE-DRIVEN PUMP REDUNDANT MOTOR DRIVEN PUMPS WERE OPERABLE. REACTOR WAS SHUT DOWN AT THE TIME. NO EFFECT ON PUBLIC HEALTH OR SAFETY.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 79-010/03L-0 025996 B+W	041179 050279 30-DAY	MS-V6 APPARENTLY CLOSED FOR MAINTENANCE PRIOR TO HEATUP. FOLLOWING MAINTENANCE PERSONNEL SAFETY TAGS WERE REMOVED. SWITCHING ORDER DID NOT SPECIFY OPENING VALVE BECAUSE VALVE LINEUP CHECKS FOR STARTUP WERE IN PROGRESS. ALSO SWITCHING AND TAGGING PROCEDURE DOES NOT REQUIRE SAFETY RELATED VALVE POSITIONS BE SPECIFIED ON SWITCHING ORDER. IN NOT SHUTDOWN AFTER REFUELING, PREPARING TO GO CRITICAL UNIT WAS RETURNED TO COLD SHUTDOWN CONDITION AND ALL BUT ESSENTIAL PERSONNEL ASSIGNED TO HELP WITH TMI-2 DURING AND AFTER MARCH 28, 1979 EVENT. REASSIGNMENT OF PERSONNEL AND USE OF ANALYSIS FACILITIES FOR UNIT 2 SAMPLES PREVENTED SEVERAL SURVEILLANCES RELATING TO CHEMISTRY, AND RADIOLOGICAL ANALYSIS FROM BEING PERFORMED AT PROPER FREQUENCY. SINCE UNIT WAS SHUT DOWN MISSED SURVEILLANCE HAS MINIMAL SAFETY IMPACT. TMI-1 PERSONNEL WERE REQUIRED TO ASSIST TMI-2 DURING THE EVENT. THIS PREVENTED TMI-1 PERSONNEL FROM COMPLETING ALL REQUIRED SURVEILLANCES. TMI-1 SURVEILLANCES WERE RESUMED WHEN PERSONNEL BECAME AVAILABLE. MISSED SURVEILLANCES HAVE SUBSEQUENTLY BEEN PERFORMED AND NO ADVERSE CONDITIONS WERE NOTED. DURING INSPECTION OF RELAYS IN THE ENGINEERED SAFEGUARDS ACTUATION SYSTEM, RELAY 62X28/RC1A FAILED TO DROP OUT WHEN THE COIL WAS DEENERGIZED. INDIVIDUAL FAILURE NOT REPORTABLE, BUT IS BEING REPORTED PER T.S. 6.9.2.A (9) AS A POTENTIALLY GENERIC PROBLEM. FAILED RELAY WOULD HAVE REDUCED 2-OF-3 COINCIDENCE LOGIC TO 2-OF-2, AFFECTING DECAY HEAT CLOSED COOLING PUMP A & HUC SERVICES CC PUMP A OR B. SIMILAR EVENTS: 76-5 AND 76-16.
THREE MILE ISLAND-1 OTHER ENGRD SAFETY FEATR SYS RELAYS CONTROL, GENERAL PURPOSE DESIGN/FABRICATION ERROR MANUFACTURING GTE SYLVANIA INC.	05000289 79-012/01T-0 026251 B+W	061879 070679 2-WEEK	CAUSE BELIEVED TO BE NOTCH IN OPERATING ROD WHERE ROD VIBRATES AGAINST MAGNET ASSY DUE TO COIL HUM. GTE SYLVANIA RELAY, TYPE PM, BULLETIN 7305, CATALOG U12-11 W/120 V. AC COIL. OF 48 RELAYS SUBSEQUENTLY INSPECTED, 25 NOTCHES, 0.001 TO 0.003 INCHES DEEP FOUND & REMOVED. CHAMFERED MAGNET ASSY BEING INVESTIGATED FOR REPLACEMENT. PERFORMING ULTRASONIC EXAMS OF DECAY HEAT PIPING AS FOLLOWUP TO LER 79-11. LEAKAGE FOUND ON 10 INCH SUCTION PIPING FROM BORATED WATER STORAGE TANK BETW VALVES 5H-V5A/BAND 6H-V14A/B. CRACKING CONFIRMED BY UT EXAM IN WELD HEAT AFFECTED ZONE & ESTIMATED TO EXTEND OVER ABOUT 6 INCHES OF PIPE CIRCUMFERENCE. REPORTABLE PER T.S. 6.9.2.A(9). LEAKAGE OBSERVED WAS MINOR WEPPAGE. SEE LER 79-11.
THREE MILE ISLAND-1 RESIDUAL HEAT REMOV SYS + CONT PIPES, FITTINGS 6 TO 10 INCHES DESIGN/FABRICATION ERROR CONSTRUCTION/INSTALLATION GRINNELL INDUSTRIAL PIPING, IN	05000289 79-013/01T-0 026250 B+W	062079 070579 2-WEEK	LEAKING PIPE WAS SCHED 40S TYPE 304-SS. BECAUSE OF SIMILARITY OF PIPING MATERIAL & SYSTEM ENVIRONMENT TO SPENT FUEL COOLING SYS PIPING WHICH WAS METALLURGICALLY ANALYZED, INTERGRANULAR STRESS CORROSION CRACKING PRODUCED BY RESIDUAL WELD STRESSES IS SUSPECTED. SEE LETTER OF 4/30/79.

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CAUSE/CAUSE SUBCODE/
COMPONENT MANUFACTURER

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LER NO. / REPORT DATE/
CONTROL NO. / REPORT TYPE/
NSSS

EVENT DESCRIPTION/
CAUSE DESCRIPTION

THREE MILE ISLAND-1
SYSTEM CODE NOT APPLICABLE
COMPONENT CODE NOT APPLICABLE
SUBCOMPONENT NOT APPLICABLE
OTHER
NOT APPLICABLE
ITEM NOT APPLICABLE

05000289 042572
79-014/041-0 072679
026663 2-WEEK
B+W

MET-ED INFORMED ON 8-26-79 BY CONSULTANT THAT A SAMPLE OF SEDIMENT SHOWED
D LEVELS IN EXCESS OF 10 TIMES CONTROL STATION VALUE FOR ISOTOPE CO-25.
INDICATOR STATION VALUE WAS 1.19 \pm 0.12 PCI/CM DRY. CONTROL STATION
LEVEL WAS \leq 0.09 PCI/CM DRY. REPORTABLE PER T.S. APPENDIX B. SECTION
5.6.2.2.A.(1). EVENT NOT CONSIDERED DETRIMENTAL TO HEALTH AND SAFETY OF
PUBLIC DUE TO LIMITED QUANTITIES FOUND.

THREE MILE ISLAND-1
SYSTEM CODE NOT APPLICABLE
COMPONENT CODE NOT APPLICABLE
SUBCOMPONENT NOT APPLICABLE
OTHER
NOT APPLICABLE
ITEM NOT APPLICABLE

05000289 072379
79-015/011-0 080979
026664 2-WEEK
B+W

BELIEVED THAT FOLLOWING UNIT 11 ACCIDENT INCREASED VOLUMES OF UNIT 1 LITQ
UID PADIQACTIVE WASTE WERE PROCESSED TO MAKE AVAILABLE SPACE FOR UNIT 11
WATER IN EVENT SPACE WOULD BE NEEDED. SINCE INCREASED SEDIMENT ACTIVITY
IS BELIEVED TO BE DUE TO A UNIQUE SITUATION, NO CORRECTIVE ACTION IS PL
LANED.
MET-ED INFORMED BY NSSS BARCOCK & WILCOX THAT A POSSIBLE UNCONSERVATIVE
ASSUMPTION WAS DISCOVERED IN ACCIDENT ANALYSIS FOR SMALL BREAK LOCALS.
ANALYSIS REVEALED THAT IF REACTOR COOLANT PUMPS WERE TRIPPED AFTER 2 MI
NUTES FOLLOWING A SMALL BREAK, LOCAL WITH ACTIVATION OF HIGH PRESSURE INJE
TION POSSIBILITY OF UNCOVERING CORE EXISTS. COULD RESULT IN FUEL CLAD T
EMPERATURES EXCEEDING 10CFR50 APPENDIX K CRITERIA. REPORTABLE PER T.S.
6.2.2.A.(8).
STUDY OF SMALL BREAK ANALYSIS FOR BREAK SIZES FROM 0.2 TO 0.025 SQUARE F
EET DURING WHICH REACTOR COOLANT PUMPS WERE TRIPPED AFTER 2 MINUTES WAS
SHOWN THAT CORE UNCOVERY MAY RESULT.

THREE MILE ISLAND-1
COOL SYS FOR REIC AUX + CONT
HANGERS, SUPPORTS, SHOCK SUPPRESS
SUPPORTS
PERSONNEL ERROR
CONSTRUCTION PERSONNEL
BASIC ENGINEERS

05000289 100179
79-016/011-0 101979
027366 2-WEEK
B+W

DURING AN INSPECTION REQUIRED BY IE BULLETIN 79-14, A NONCONSERVATIVE ER
ROR IN THE SEISMIC ANALYSIS FOR A LADDER-TYPE SUPPORT FOR THE "B" DRICC A
NSSC WATER PIPING MAY HAVE EXCEEDED CODE ALLOWABLE STRESSES. A REDUNDA
NT DH CC TRAIN WAS AVAILABLE. HOWEVER, NO REDUNDANT NSSC TRAIN WAS AVAI
LABLE.

THREE MILE ISLAND-1
RESIDUAL HEAT REMOV SYS + CONT
HANGERS, SUPPORTS, SHOCK SUPPRESS
SUPPORTS
DESIGN/FABRICATION ERROR
DESIGN
BASIC ENGINEERS

05000289 110879
79-017/011-1 121179
027484 2-WEEK
B+W

THE DRAWING ANALYZED SHOWED TWO PIPES AS BEING A "FUTURE" INSTALLATION W
HEN IN FACT THEY WERE INSTALLED. AN ENGINEERING EVALUATION OF NECESSARY
SUPPORT DESIGN CHANGES IS IN PROGRESS, AND DESIGN CHANGES WILL BE COMPL
ETED PRIOR TO UNIT STARTUP.
DURING INSPECTIONS REQUIRED BY I.E. BULLETIN 79-14, SIZE OF SUPPORT BOLT
ING FOR RIGID ANCHOR DHH-127A FOUND INADEQUATE IN BOTH DESIGN AND INSTAL
LATION. UNDER SEISMIC CONDITIONS, AFFECTED DECAY HEAT REMOVAL COOLING P
IPING MAY EXCEED CODE ALLOWABLE STRESSES. THIS IS REPORTABLE BY T.S. 6.
9.2.2.A.(9). CONDITION DISCOVERED BY ARCHITECT ENGINEER WITH PLANT SHUTDOWN
N.
BOLTS FOUND DURING INSPECTION WERE 5/8 INCH DIAMETER CONTRARY TO 3/4 INCH
IN DESIGN REQUIREMENT. FURTHER EVALUATION REVEALED 3/4 INCH DIAMETER BOL
TS WOULD NOT HAVE PROVIDED REQUIRED SAFETY MARGIN. REDESIGNED SUPPORT P
OR DHH-127A WILL BE INSTALLED PRIOR TO STARTUP. SIMILAR DESIGN SUPPORTS
IN DECAY HEAT & RIGID SPRAY BUILTS WILL BE EVAL PRIOR TO STARTUP

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THREE MILE ISLAND-1 ON-SITE POWER SYSTEM + CONTROL CIRCUIT CLOSERS/INTERRUPTERS CIRCUIT BREAKER DESIGN/FABRICATION ERROR DESIGN WESTINGHOUSE ELECTRIC CORP.	05000289 80-001/011-0 030129 B+W	012380 020680 2-WEEK	AS RESULT OF A LOAD STUDY PERFORMED ON ES BUSES, IT HAS BEEN DETERMINED THAT A POTENTIAL OVERLOAD CONDITION COULD EXIST ON 1P 480V BUS DURING FOLLOWING CONDITIONS (1) FAILURE OF 1S 480V BUS, (2) ESAS ACTUATION & (3) OFF SITE POWER IS AVAILABLE. USING CONSERVATIVE LOADING ASSUMPTIONS CALCULATED CURRENT TO 1P 480V BUS EXCEEDS LONG DELAY PICKUP SETTING OF 1600 AMPS. THE CONSEQUENCES OF THIS EVENT WOULD BE LOSS OF CLOSED COOLING SYSTEMS REQUIRED TO SUPPORT ECCS. CAUSE APPEARS TO BE INADEQUATE DESIGN FOR CONDITION INDICATED. CORRECTIVE ACTION WILL BE TO VERIFY THE VALIDITY OF ASSUMPTIONS USED IN STUDY & THE RESULTS OBTAINED. IF INADEQUATE DESIGN IS VERIFIED, MODIFICATIONS WILL BE MADE TO ASSURE THAT THE 1P 480V BUS WILL SUPPLY THE REQUIRED ESAS LOADS WITH OR WITHOUT FAILURE OF THE 1S BUS.
THREE MILE ISLAND-1 EMERG GENERATOR SYS + CONTROLS ENGINES, INTERNAL COMBUSTION SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE OTHER	05000289 80-002/031-0 030351 B+W	013180 022980 30-DAY	WITH THE PLANT IN THE COLD SHUTDOWN CONDITION, THE ANNUAL INSPECTION OF THE DIESEL GENERATOR 1A(1501-8.2) WAS NOT PERFORMED. THIS IS REPORTABLE UNDER TECHNICAL SPECIFICATION 4.6.1.C.
THREE MILE ISLAND-1 REAC COOL CLEANUP SYS + CONT VALVES CHECK COMPONENT FAILURE CORROSION CHAPMAN VALVE & MFG	05000289 80-003/01X-1 030264 B+W	020680 030480 OTHER	THE ANNUAL INSPECTION WAS NOT PERFORMED ON DIESEL GENERATOR 1A BECAUSE OF THE FOLLOWING CONDITIONS: (1) DECAY HEAT LOOP "A" IN OPERATION (REPAIRS IN PROGRESS ON DECAY HEAT LOOP "B") AND (2) SPARE PARTS ON ORDER TO SUPPORT INSPECTION (P.O. #74372). INSPECTION WILL BE PERFORMED PRIOR TO UNIT #1 RESTART. DURING VALVE MODIFICATIONS THE VALVE SEAT HOLD-DOWN DEVICES FOR HPI PUMP DISCHARGE CHECK VALVES (MV-V73A/73C) WERE FOUND TO BE LOOSE. LOOSE VALVE INTERNALS COULD POTENTIALLY BLOCK THE VALVE OUTLET REDUCING HPI PUMP FLOWS. THIS IS CONSIDERED TO BE REPORTABLE UNDER THE REQUIREMENTS OF TECHNICAL SPECIFICATION 6.9.2.A(9).
THREE MILE ISLAND-1 RESIDUAL HEAT REMOV SYS + CONT COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE DESIGN/FABRICATION ERROR DESIGN ITEM NOT APPLICABLE	05000289 80-004/01X-1 030495 B+W	030680 070380 OTHER	PRELIMINARY EVALUATION OF THE CAUSE IS POSSIBLE CORROSION OF THE SEAT HOLD DOWN DEVICES. A CONTINUING INSPECTION PROGRAM AND DESIGN STUDY ARE BEING DEVELOPED TO DETERMINE THE SCOPE OF THE PROBLEM AND PLAN CORRECTIVE ACTIONS.
			DURING PIPING REANALYSIS, ERRORS WERE DISCOVERED IN THE SEISMIC ANALYSIS OF THE COMMON DECAY HEAT SUCTION PIPING ASSOCIATED WITH DH-V1 AND DH-V2. WHEN SUBJECTED TO OBE LOADS, THE PIPING ASSOCIATED WITH THESE VALVES MAY EXCEED CODE ALLOWABLE STRESSES. THIS IS REPORTABLE PER TECHNICAL SPECIFICATION 6.9.2.A(9).

THE CAUSE OF THIS EVENT IS ANALYSIS ERROR. THE AFFECTED PIPING SEISMIC ANALYSIS HAS BEEN CORRECTED AND APPROPRIATE HARDWARE CHANGES TO DH-V2 WERE COMPLETED AND THE MODIFICATIONS TO DH-V1 WILL BE COMPLETED BY 10/15/80.

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THREE MILE ISLAND-1 SAFETY RELATED DISPLAY INSTR INSTRUMENTATION + CONTROLS TRANSMITTER DESIGN/FABRICATION ERROR MANUFACTURING ROSEMOUNT, INC.	05000289 80-005/99X-0 030602 B+W	032180 032780 OTHER	ROSEMOUNT 1152 PRESSURE TRANSMITTER IN LIMITED CASES HAVE EXHIBITED AN OUTPUT BETWEEN 4 & 20 MA WITH INPUT PRESSURES EITHER OVER OR UNDER CALIBRATED RANGE. THIS MODEL TRANSMITTER IS USED AS NARROW RANGE PRESSURE TRANSMITTER FOR RCS. THIS ANOMALY DOES NOT INTERFERE WITH TRIP FUNCTIONS OF RPS BUT COULD CAUSE CONFUSION TO AN OPERATOR WATCHING INSTRUMENT FOR SUTURATION CONDITION. OTHER PRESSURE INDICATIONS NOT DEPENDENT ON THIS TYPE TRANS ARE AVAILABLE (WIDE RANGE PRESS REC, COMPUTER, TEMP, SAT MARGINS). ALL OPERATIONS CONTROL ROOM PERSONNEL WILL BE INFORMED OF THE POSSIBILITY OF THIS ANOMALY IN THE NARROW RANGE PRESSURE INSTRUMENT WHEN IN THE AMBIGUOUS OVER/RANGE OUTPUT REGION. SEE SIMILAR LER 80/320-11/99X-0
THREE MILE ISLAND-1 CONTAINMENT ISOLATION SYS + CONT VALVES GATE COMPONENT FAILURE MECHANICAL WALWORTH CO.	05000289 80-006/01T-0 030763 B+W	032580 040880 2-WEEK	DURING PERIODIC REACTOR BUILDING LOCAL LEAK RATE TESTING, A CONTAINMENT ISOLATION VALVE (RB-V7) IN THE NORMAL REACTOR BUILDING COOLING SYSTEM HAD EXCESSIVE LEAKAGE (GREATER THAN 105,176 SCCM) WHEN ADDED TO THE CURRENT LEAKAGE FROM OTHER ISOLATION DEVICES THE TOTAL LEAKAGE LIMIT OF 0.6 L/SUB A (104,846 SCCM) WAS EXCEEDED IN VIOLATION OF 10 CFR 50 APPENDIX J AND TECHNICAL SPECIFICATION 4.4.1.2.3.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 80-107/01T-0 030960 B+W	042380 050880 2-WEEK	THE CAUSE OF THE HIGH LEAKAGE HAS NOT BEEN DETERMINED. IT IS SUSPECTED THAT BASED ON HISTORICAL DATA FOR THIS TYPE OF VALVE, THE HIGH LEAKAGE WAS AS A RESULT OF SEAT DAMAGE. AN IMPROVED TYPE VALVE HAS BEEN PLACED ON ORDER. IF RECEIVED ON TIME, IT WILL BE INSTALLED PRIOR TO STARTUP. OTHERWISE THE EXISTING VALVE WILL BE REPAIRED AND RETESTED. RESULTS OF RADIOGRAPHIC EXAMINATIONS OF PIPING WELDS ASSOCIATED WITH THE REACTOR BUILDING PENETRATIONS FOR THE LEAK RATE TEST SYSTEM DISCLOSED 8 OF 17 WELDS DID NOT MEET ACCEPTANCE STANDARDS OF USAS (ANSI) 831.1.0-19 67 POWER PIPING CODES. THE PIPING HAS BEEN LEAK RATE TESTED AT EACH REFUELING OUTAGE PER 10 CFR 50 APPENDIX J.
THREE MILE ISLAND-1 EMERG GENERATOR SYS + CONTROLS ENGINES, INTERNAL COMBUSTION SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE FAIRBANKS MORSE	05000289 80-008/99X-1 031819 B+W	043080 050480 OTHER	THE PIPING WAS ERECTED, FABRICATED AND INSPECTED PER THE A/E SPECIFICATIONS FOR NON-NUCLEAR SEISMIC CLASS 1 PIPING. THIS CALLS FOR A 5% INSPECTION OF THE TOTAL NUMBER OF WELDS PERFORMED BY A WELDER. THIS INSPECTION WAS NOT PERFORMED ON THE INACCEPTABLE WELDS. THE WELDS WILL BE REPAIRED AND UPGRADED TO NUCLEAR CLASS 2. DURING ANNUAL INSPECTION OF THE EMERGENCY DIESEL GENERATOR, THE GENERATOR BEARING INSULATION WAS DETERMINED TO HAVE DETERIORATED. AS BEARING INSULATION PREVENTS CIRCULATING CURRENTS AND THEREBY ELECTROLYSIS OF THE LUBE OIL, BREAKDOWN OF THE BEARING INSULATION COULD LEAD TO POSSIBLE BEARING FAILURE. ALTHOUGH NOT REPAIRABLE BY TECHNICAL SPECIFICATIONS, THIS EVENT IS BEING REPORTED BECAUSE OF ITS POTENTIALLY GENERIC NATURE.

THE CAUSE FOR THE INSULATION DETERIORATION IS BELIEVED TO BE NORMAL AGING OR FROM HEATING THE BEARING LUBE OIL. THE LUBE OIL BEING USED WAS OF LOWER VISCOSITY THAN THE ONE RECOMMENDED BY THE ENGINE MANUFACTURER.

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THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 80-013/01T-0 031465 B+W	060680 063080 2-WEEK	MEI-1D RECEIVED FROM THE TMI-1 N555 A LETTER STATING THE FSAR SAFETY ANALYSES DO NOT ASSUME THAT RADIOACTIVE RELEASE PATHS EXIST VIA THE MAIN SAFETY VALVES OR THE EMERGENCY FEED PUMP TURBINE ATMOSPHERIC STEAM EXHAUST. THIS WOULD RESULT IN A POTENTIAL THYROID DOSE AT THE SITE BOUNDARY IN EXCESS OF THAT REPORTED IN THE TMI-1 FSAR. THIS EVENT IS REPORTABLE PER 6.9.2.A(8).
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 80-009/03L-0 031464 B+W	060780 062580 30-DAY	THIS EVENT WAS DUE TO THE IMPLEMENTATION OF THE HRC SMALL BREAK LOCA OPERATOR GUIDELINES REQUIRING THE R.C. PUMPS TO BE TRIPPED, WHICH WOULD RESULT IN THE MAIN STEAM SAFETY VALVES DUMPING STEAM TO THE ATMOSPHERE. THE TMI-1 ANTICIPATED TRANSIENT OPERATING GUIDELINE (ATOG) PROGRAM WILL IDENTIFY CHANGES NECESSARY TO MINIMIZE THIS PROBLEM. ON JUNE 7, 1980, THE REACTOR BUILDING TENDON SURVEILLANCE LATE DATE WAS EXCEEDED. THE SURVEILLANCE COMMENCED ON 4/18/80 AND AS OF 6/2/80, 10 OF 21 TENDONS HAVE BEEN COMPLETED. THIS IS A VIOLATION OF SECTION 4.4.2.1 AND IS REPORTABLE PER SECTION 6.9.2.B(3).
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE PERSONNEL ERROR OTHER ITEM NOT APPLICABLE	05000289 80-011/03L-0 031591 B+W	061080 071180 30-DAY	THE INABILITY TO COMPLETE THE REACTOR BUILDING TENDON SURVEILLANCE PRIOR TO EXCEEDING THE LATE DATE IS DUE TO AVAILABILITY OF THE CONTRACTORS EQUIPMENT. THE SURVEILLANCE IS CONTINUING AND NO CORRECTIVE ACTION IS DEEMED NECESSARY.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE PERSONNEL ERROR OTHER ITEM NOT APPLICABLE	05000289 80-011/03L-0 031591 B+W	061080 071180 30-DAY	ON 5-16-80 THE REACTOR BUILDING SPRAY SYSTEM COMPRESSED AIR TEST LATE DATE WAS EXCEEDED. THIS RESULTED IN A VIOLATION OF TECHNICAL SPECIFICATION 4.5.3.1A.2 AND IS REPORTABLE PER TECHNICAL SPECIFICATION 6.9.2.B.3. THIS UNIT IS IN A LONG-TERM COLD SHUTDOWN CONDITION. THEREFORE, NO THREAT TO THE HEALTH AND SAFETY OF THE PUBLIC WAS INCURRED.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 80-012/01T-0 031590 B+W	062780 071180 2-WEEK	THE INCORRECT DATE OF 2-1-76 WAS ENTERED INTO THE SURVEILLANCE DATA TRACKING SYSTEM. THE CORRECT DATE WAS 2-13-74. THE INFORMATION ON THE DATA BASE WAS CORRECTED AND A REVIEW OF INFREQUENT (I.E., 5 YEARS OR GREATER) SURVEILLANCE WILL BE PERFORMED. THE RB SSCA TEST WILL BE PERFORMED PRIOR TO STARTUP. DURING REVIEW OF THE ENVIRONMENTAL QUALIFICATION OF EQUIPMENT REQUIRED TO OPERATE DURING A MAIN STEAM LINE BREAK PER IE BULLETIN 79-01B IT WAS DETERMINED THAT THE POST ACCIDENT PRESSURE AND TEMPERATURE IN THE INTERMEDIATE BUILDING EXCEEDED THE PREVIOUS ANALYSIS FIGURES. THE UNIT IS PRESENTLY IN A LONG TERM COLD SHUTDOWN CONDITION WHICH PREVENTS AN ACCIDENT OF THIS TYPE FROM OCCURRING.
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE COMPONENT CODE NOT APPLICABLE SUBCOMPONENT NOT APPLICABLE OTHER NOT APPLICABLE ITEM NOT APPLICABLE	05000289 80-012/01T-0 031590 B+W	062780 071180 2-WEEK	THIS EVENT WAS DUE TO A REANALYSIS PERFORMED AS PART OF THE WORK REQUIRED BY IE BULLETIN 79-01B. THIS NEW ANALYSIS USED SUPER HEATED STEAM INSTEAD OF SATURATED STEAM AND ASSUMED A SMALLER VENTING AREA. THE NEW ENVIRONMENTAL DATA WILL BE USED TO EVALUATE THE QUALIFICATIONS OF SAFETY RELIABLE COMPONENTS TO THE INTERMEDIATE BUILDING.

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THREE MILE ISLAND-1 OTHER COOLANT SUBSYS + CONTROL VALVES OTHER OTHER NOT APPLICABLE DRESSER INDUST. VALVE & INST D	05000289 80-013/03L-0 032673 B+W	071580 081880 30-DAY	DURING PERFORMANCE OF THE PRESSURIZER CODE SAFETY VALVE SETPOINT VERIFICATION PROCEDURE, IT WAS DETERMINED THAT RC-RV18 LIFTED AT 2330 PSIG, WHICH IS NOT WITHIN LIMITS OF 2500 PSIG +/- 1%. THE UNIT HAS BEEN IN LONG TERM COLD SHUTDOWN SINCE THE VALVE'S INSTALLATION. THEREFORE, THE HEALTH AND SAFETY OF THE PUBLIC WERE NOT AFFECTED. THE EXACT CAUSE FOR THE LOW RELEASE SETTING IS UNDER INVESTIGATION, HOWEVER, THE SURVEILLANCE PROCEDURE WILL BE REVIEWED. LEAKS WITHIN THE SITE TESTING EQUIPMENT WHEN THE SETPOINT VERIFICATION WAS PERFORMED PRIOR TO INSTALLATION MAY HAVE CAUSED THE LOW SETPOINT. THE SETPOINT FOR RC-RV18 WAS BROUGHT TO WITHIN SPECIFICATIONS. AN INVESTIGATION AND EVALUATION WILL BE CONDUCTED AND THE RESULTS FORWARDED BY 11/1/80. DRESSER 2.5" X 6" TYPE 31700; SERIAL NO. B06613.
THREE MILE ISLAND-1 COOL SYS FOR REAC AUX + CONT HANGERS, SUPPORTS, SHOCK SUPPRESS SHUBBERS COMPONENT FAILURE OTHER BASIC ENGINEERS	05000289 80-014/03L-0 032074 B+W	071580 081480 30-DAY	DURING INSPECTION OF SHUBBERS PER T.S. 4.17.1, SHUBBER NSE-151 WAS FOUND TO HAVE A LOW FLUID LEVEL AND FAILED THE FUNCTIONAL TEST. THE REQUIRED INSPECTION INTERVAL FOR THIS SURVEILLANCE IS 12 MONTHS BASED ON THE NUMBER OF INOPERABLE SHUBBERS FOUND DURING PREVIOUS INSPECTIONS. THE INSPECTION PERIOD WILL REMAIN AT 12 MONTHS BECAUSE THIS IS THE ONLY INOPERABLE SHUBBER FOUND DURING THIS INSPECTION.
THREE MILE ISLAND-1 ULTIMATE HEAT SINK FACILITIES INSTRUMENTATION + CONTROLS OTHER OTHER NOT APPLICABLE FOXBORO CO., THE	05000289 80-015/04X-1 032075 B+W	072180 090980 OTHER	THE LOSS OF FLUID WHICH CAUSED THE SHUBBER TO FAIL THE FUNCTIONAL TEST WAS AS PROBABLY DUE TO LEAKAGE PAST A DAMAGED SEAL. THE DAMAGE MAY HAVE BEEN CAUSED BY IMPROPER INSTALLATION. ALL THE SEALS WERE REPLACED AND THE SHUBBER PASSED THE FUNCTIONAL TEST. BASIC ENG. - BE410 SHUBBER - 1" X 5" STROKE; MARK NO. NSE-151. THIS EVENT OCCURRED WHILE BOTH UNITS WERE IN A COLD SHUTDOWN CONDITION WITH A MINIMAL NEED FOR RIVER WATER COOLING. FOR APPROXIMATELY 6 HOURS THE ACTUAL RIVER WATER DELTA T EXCEEDED THE -3 DEGREE LIMIT, REACHING A MAXIMUM OF -5 DEGREES F. THIS IS A VIOLATION OF SECTION 2.1.A(1) AND IS REPORTABLE PER 6.9.2.A.2. IT WAS DETERMINED THAT THERE WERE NO DETRIMENTAL EFFECTS TO THE ENVIRONMENT.
THREE MILE ISLAND-1 CONTINUIT AIR PURI + CLEANUP SYS VALVE OPERATORS ELECTRIC MOTOR - AC OTHER NOT APPLICABLE LIMITORQUE CORP.	05000289 80-017/01T-0 032679 B+W	092380 100880 2-WEEK	THIS EVENT WAS CAUSED BY A CALCULATION ERROR IN THE INSTRUMENT LOOP USED TO MEASURE RIVER WATER (RW) OUTLET TEMPERATURE. THE IMMEDIATE CORRECTIVE ACTION WAS TO ADJUST THE OPERATION OF THE MECHANICAL DRAFT COOLING TO WERS (MDCT) TO RETURN THE RW DELTA T TO WITHIN THE TECHNICAL SPECIFICATION LIMITS. DURING THE REVIEW OF EQUIPMENT QUALIFICATION PER BULLETIN 79-01B, IT WAS DETERMINED THAT THERE IS INSUFFICIENT DOCUMENTATION TO DEMONSTRATE THAT THE BRAKES ON THE MOTOR OPERATORS ON PURGE VALVES AH-V18/C AND SAFETY RELATED VALVES DH-V44/B AND DH-V5A/B ARE ENVIRONMENTALLY QUALIFIED. THE UNIT IS IN A COLD SHUTDOWN CONDITION AND THE REDUNDANT PURGE VALVES OUTSIDE CONTAINMENT ARE FULLY QUALIFIED.
			THE QUALIFICATION TESTS FOR THE PURGE VALVE OPERATORS WERE INSUFFICIENT TO MEET THE DESIGN REQUIREMENTS. THE ORIGINAL DESIGN REQUIREMENTS FOR THE DHV VALVES DID NOT ASSUME SIGNIFICANT RADIATION EXPOSURE TO THE VALVE OPERATORS. CORRECTIVE ACTION WILL BE TO ESTABLISH THAT THE BRAKES ARE QUALIFIED.

DEC 17, 1980

LER OUTPUT ON THREE MILE ISLAND 1 EVENTS
FROM 1977 TO THE PRESENT
OUTPUT SORTED BY FACILITY AND EVENT DATE

PAGE 23

FACILITY/SYSTEM/ COMPONENT/COMPONENT SUBCODE/ CAUSE/CAUSE SUBCODE/ COMPONENT MANUFACTURER	DOCKET NO./ LER NO./ CONTROL NO./ N555	EVENT DATE/ REPORT DATE/ REPORT TYPE	EVENT DESCRIPTION/ CAUSE DESCRIPTION
THREE MILE ISLAND-1 SYSTEM CODE NOT APPLICABLE VALVE OPERATORS SOLENOID - DC PERSONNEL ERROR OTHER ASCO	05000289 80-018/01T-0 032515 B+W	101780 110430 2-WEEK	WHILE REPLACING COILS FOR ASCO SOLENOID VALVES PER BULLETIN 79-01A, IT WAS DETERMINED THE COILS HAD AN OPERATING RANGE OF 102 TO 126V WHEREAS THE STATION VOLTAGE RANGES FROM 107 TO 137V. ADDITIONALLY, ASCO SOLENOID VALVES FOR PILOT OPERATORS HAVE A MAXIMUM SAFE WORKING PRESSURE OF 75 PSI BUT THE INSTRUMENT AIR SUPPLY RANGES FROM 85 TO 95 PSI. THESE ITEMS ARE CONSIDERED REPORTABLE PER SECTION 6.9.2.A(9). AS OF 10/27/80, NO VALVE MALFUNCTIONS HAVE BEEN EXPERIENCED BECAUSE OF THESE DEVIATIONS. THE PURCHASE ORDER FOR THE REPLACEMENT COILS WAS INCORRECT. THE DISCONTINUATION OF INSTALLING REPLACEMENT COIL WAS THE IMMEDIATE CORRECTIVE ACTION. LONG TERM CORRECTIVE ACTION WILL BE TO REPLACE THE COILS WITH OTHER COILS WITH AN OPERATING RANGE OF 90 TO 140V AND TO REPLACE THE VALVES OR REDUCE THE AIR PRESSURE.

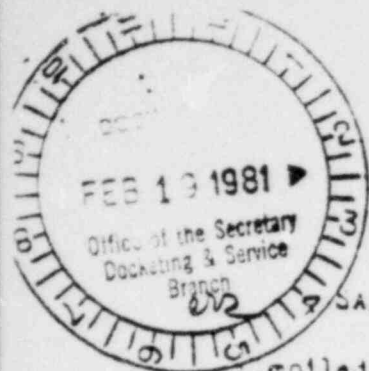


Exhibit #1 (b)

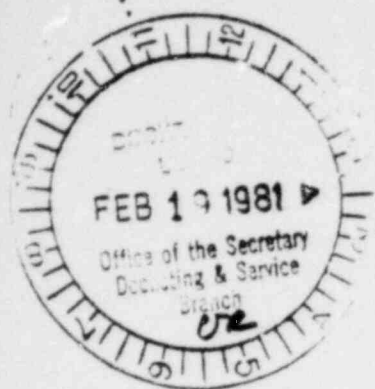
500/1

SAFETY RELATED INCIDENTS AT THREE MILE ISLAND NUCLEAR POWER PLANT

Compiled from: Nuclear Safety. A bimonthly Technical Progress Review prepared for the Nuclear Regulatory Commission by the Nuclear Safety Information Center at Oak Ridge National Laboratory. Vols. 16-18, 1975-1977. Compiled by William Caste and R. L. Scott.

Three Mile Island I is a Pressurized Water Reactor designed by Babcock and Wilcox. It is operated by Metropolitan Edison, a subsidiary of General Public Utilities. Its operating license was granted on April 19, 1974. The plant's docket number is 50-289, and reports of the plant and its accidents can be obtained by sending the number and a request to: Nuclear Regulatory Commission's Public Document Room, 1717 H Street, NW, Washington, D. C.

10-3-74	Unplanned radioactivity releases	Inadequate design
10-24-74	Unplanned radioactive gaseous releases	Valve leak and operator error
11-4-74	Unplanned radioactive releases	Leaking valves
11-20-74	Imposition of a civil penalty	Security Violation
12-12-74	Two unplanned releases of radioactivity	Inadequate procedural guidelines
1-25-75	Tritium level in river sample exceeds control value	Minor leaks
1-15-75	Design deficiency in control rod drive	Design error
1-17-75	Pipe support found broken	Design error
1-31-75	Excessive chloride in discharge	Loss of loop water seal
2-7-75	Unplanned radioactive gas release	Loss of loop water seal
2-17-75	Inadvertant release of airborne radiation	Loss of ventilation-air flow
2-18-75	Excessive total chlorine in discharge	Lack of guidelines
2-19-75	Reactor criticality reached	Procedural deficiency
2-26-75	Total chlorine concentration in river exceeds limit	Cracked hypochlorite carboy
2-28-75	Tritium concentration in effluent exceeds limit	Waste processing
3-3-75	Unplanned release of radioactive gas	Leak in waste evaporator
3-10-75	Suspended solids in effluent exceed limit	High concentration in influent
3-17-75	Unplanned release of radioactive material	Lifting of relief valve
3-24-75	Tritium level in effluent exceeds control value	Low river flow
3-25-75	Notice of proposed imposition of civil penalties	Administrative control deficiency
3-27-75	Plant river water discharge solids exceed limit	Unknown
4-1-75	River water discharge temperature exceeds limits	Poor valve response
4-1-75	Suspended solids concentration in effluent exceed limit	Sludge of solids



WHAT HAPPENED LAST WEEK AT THREE MILE ISLAND? CONFLICTING REPORTS PUZZLE RESIDENTS

Tremendous Steam Released Jan. 6, 1981 at TMI

On Tuesday, Jan. 6th, at 11:30 in the evening, residents living near Three Mile Island heard a tremendous roar from escaping steam, and noticed a jet of steam rising hundreds of feet in the air. At exactly 11:39, an explosive roar, over and above the whistling of the steam occurred ... sending the column of steam higher than the 375 foot cooling towers.

When a Paxton Herald reporter called TMI, she was told by the operator on duty at the #1 Control Room that it was only Unit 1 ... just releasing steam ... but a worker corrected him saying that steam was being released at #2 reactor!! The Operator assured us that this was a normal procedure, and the steam was coming from the turbine. Next morning, the story from Met Ed was changed for the press, and the steam was now said to have come from an exchange of steam between two boilers, as the auxiliary cooling system was put back on line. This system had been shut down for repairs they said.

The NRC was not "on deck" on Tuesday evening, Jan. 6, 1981, and Mr. Fasano, an NRC Official, said, "We have to rely on what Met Ed tells us, and hopefully, they tell us everything." But he assured us that he feels certain the steam was not radioactive. In other words, the NRC really didn't know!

Snow had melted in on the east side, so residents of Middletown weren't aware of the release. But residents on the West Shore were alarmed, and one resident said, "They were putting a hell of a lot of steam up to blow steam off like that for twenty minutes. It made a huge roar like a plane taking off. Steam billowed up several hundred feet and traveled down the Lancaster corridor."

On Thursday, farmers in the Lancaster corridor between Lancaster and Met-Ed reported Met-Ed mobile labs and pickup trucks out measuring for radiation. One resident asked, "If nothing was released, why are they out chasing ghosts?" One resident, experienced in engineering, estimated the pressure to be around 1000 pounds.

NRC Admits It Is Impotent... & At Mercy of What Met-Ed Chooses to Tell Them!

After hearing Met-Eds FIRST explanation of the steam release, in which it had been stated by Met Ed that the release had been planned, and that its purpose was to effect a vacuum on a pump, this paper contacted the Westinghouse Co., Manufacturers of the steam turbine generators used at TMI. Discussion with an engineer there brought this response from Westinghouse, "There seems to be something missing from their story." The engineer went on to explain that high pressure steam is by-passed away from the rotating fins of the generator when the plant is in a shut-down condition as it now is. This steam then goes into a condenser where it is cooled and returned to the system to be reheated. We were told that when in a shut-down state ... the generator uses a small amount of steam to turn it, very slowly, in order to keep a vacuum on the condenser. If there was a blow-off at this point in the system, it probably was some sort of accident and not a planned situation.

What the residents (and the Paxton Herald) would like to know is if there was no problem at 11:30 on Tuesday evening, why at 01:00 hundred hours, Wednesday, Jan. 7, were the steam valves malfunctioning?