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PDR. *Sam Stern*

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Part II of II

7/12/89

Performance Indicators for Operating
Commercial Nuclear Power Reactors

Part II

Quarterly Report, June 1989
Data through March 1989

Office for Analysis and Evaluation of Operational Data

William Burton
Tracey Hill
Neil Naraine
Samuel Pettijohn
Stephen Stern

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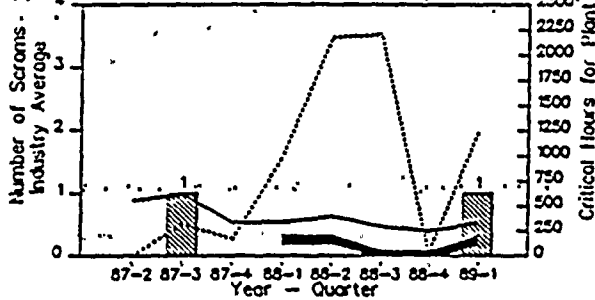
TURKEY POINT 3

87-2 to 89-1

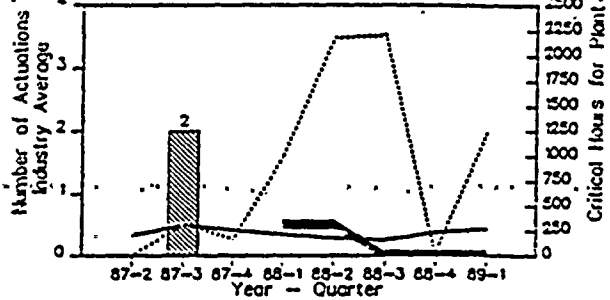
Legend:

- Indicator
- Older Plant Average
- Critical Hours
- 4 Quarter Moving Average

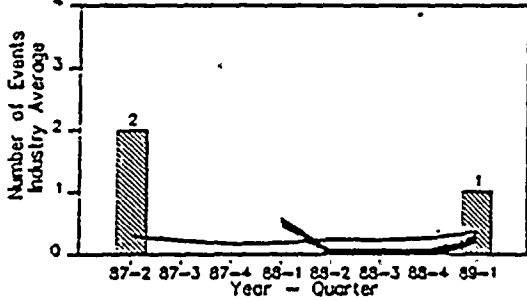
1. Automatic Scrams While Critical



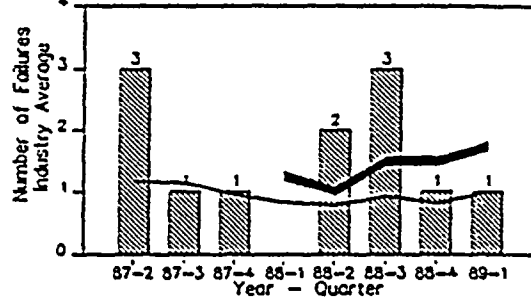
2. Safety System Actuations



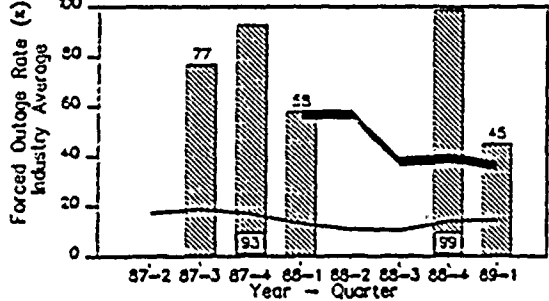
3. Significant Events



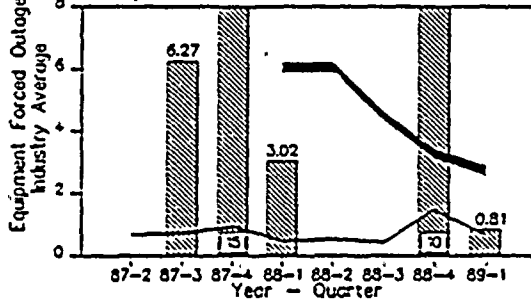
4. Safety System Failures



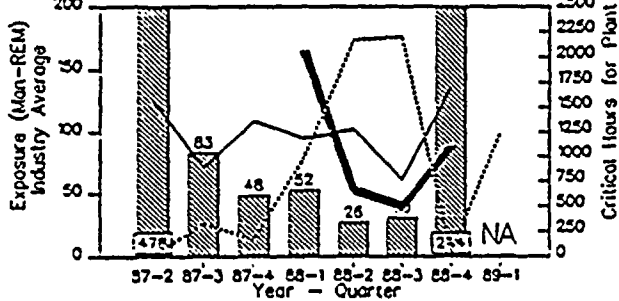
5. Forced Outage Rate (%)



6. Equipment Forced Outages/1000 Critical Hours



7. Radiation Exposure

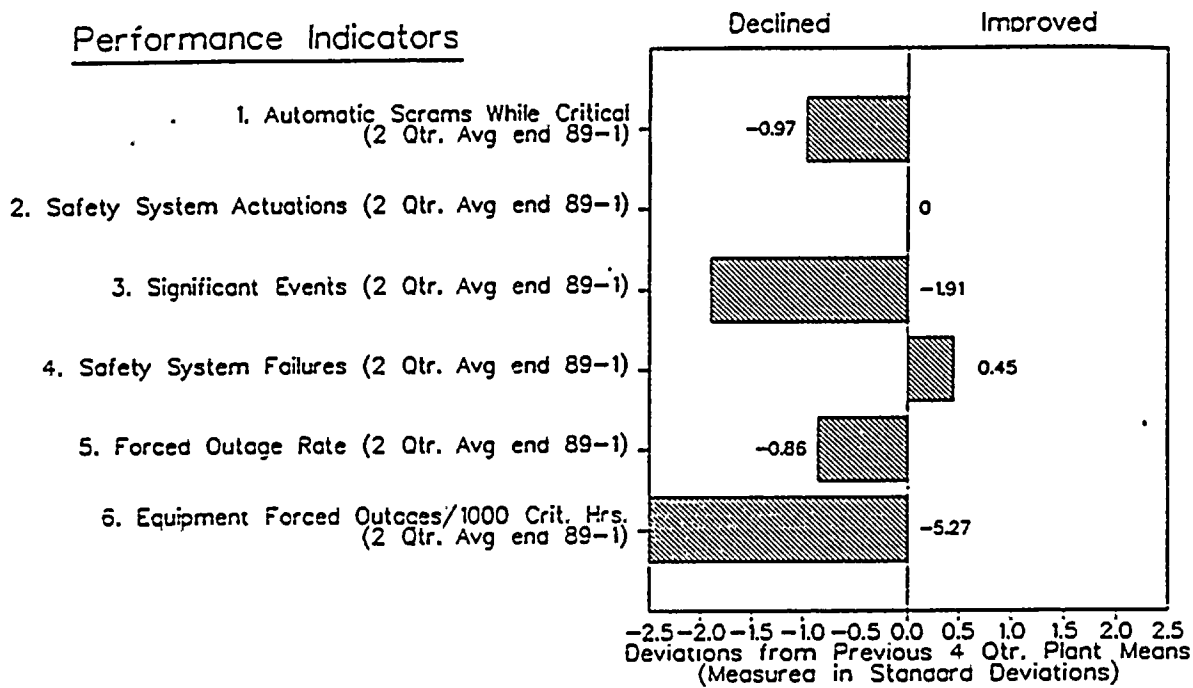




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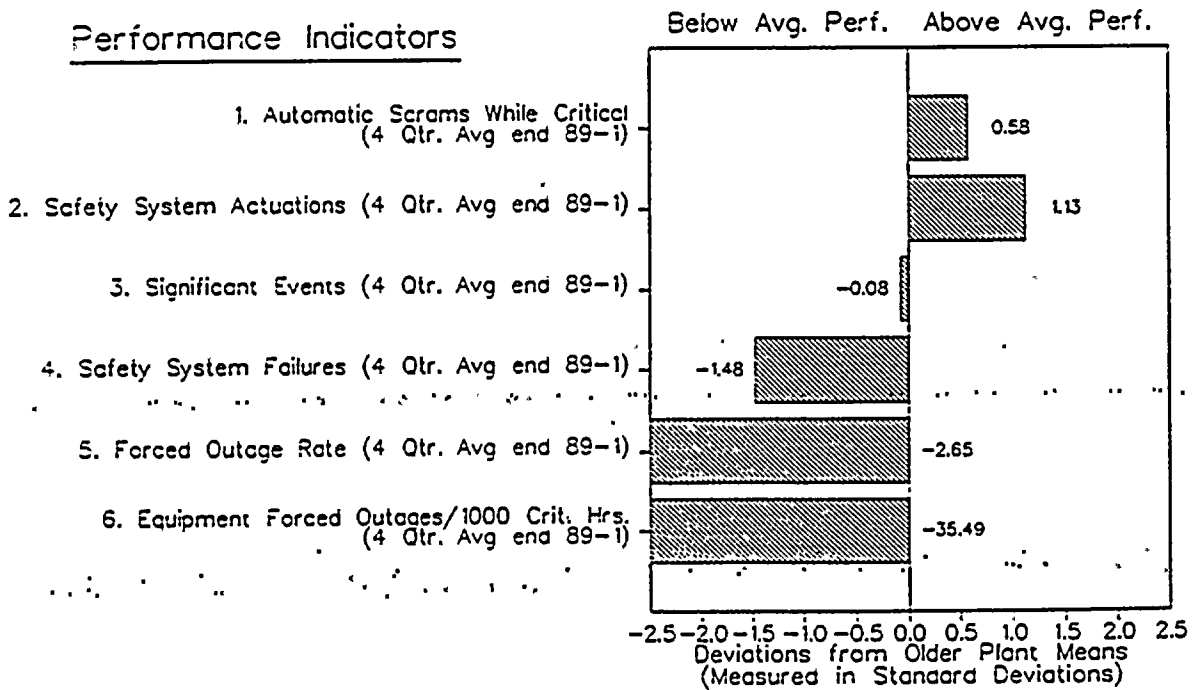
TURKEY POINT 3: Trends

Performance Indicators



TURKEY POINT 3: Deviations from Older Plant Means

Performance Indicators



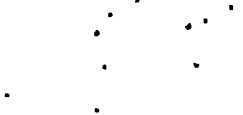






FIGURE 4.103

PREDECISIONAL

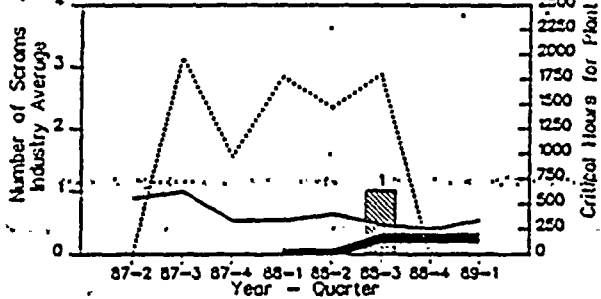
TURKEY POINT 4

87-2 to 89-1

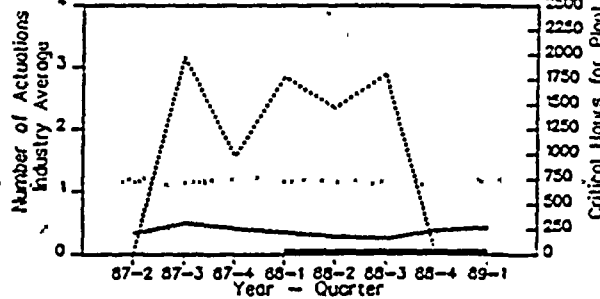
Legend:

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-  Older Plant Average
-  Critical Hours
-  4 Quarter Moving Average

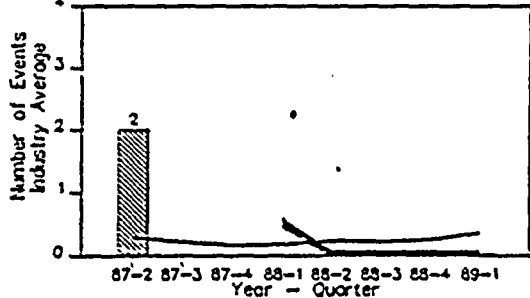
1. Automatic Scrams While Critical



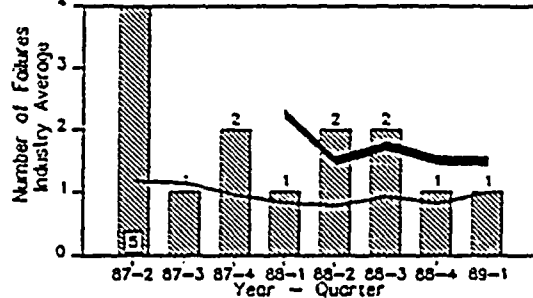
2. Safety System Actuations



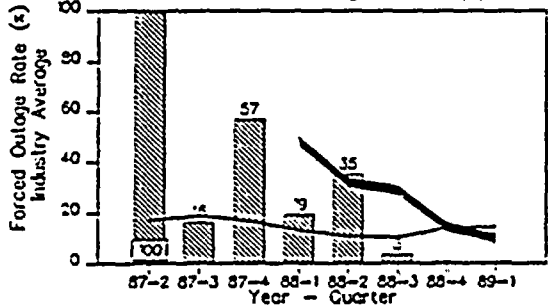
3. Significant Events



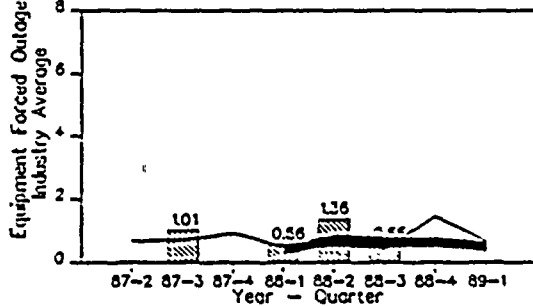
4. Safety System Failures



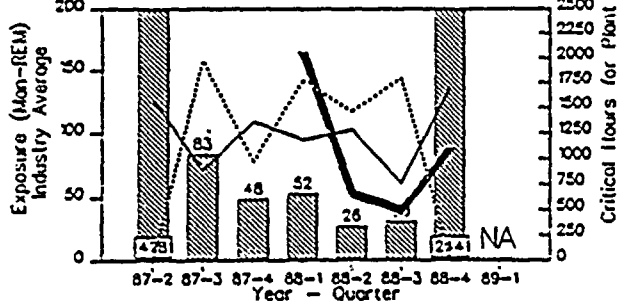
5. Forced Outage Rate (%)



6. Equipment Forced Outages/1000 Critical Hours



7. Radiation Exposure



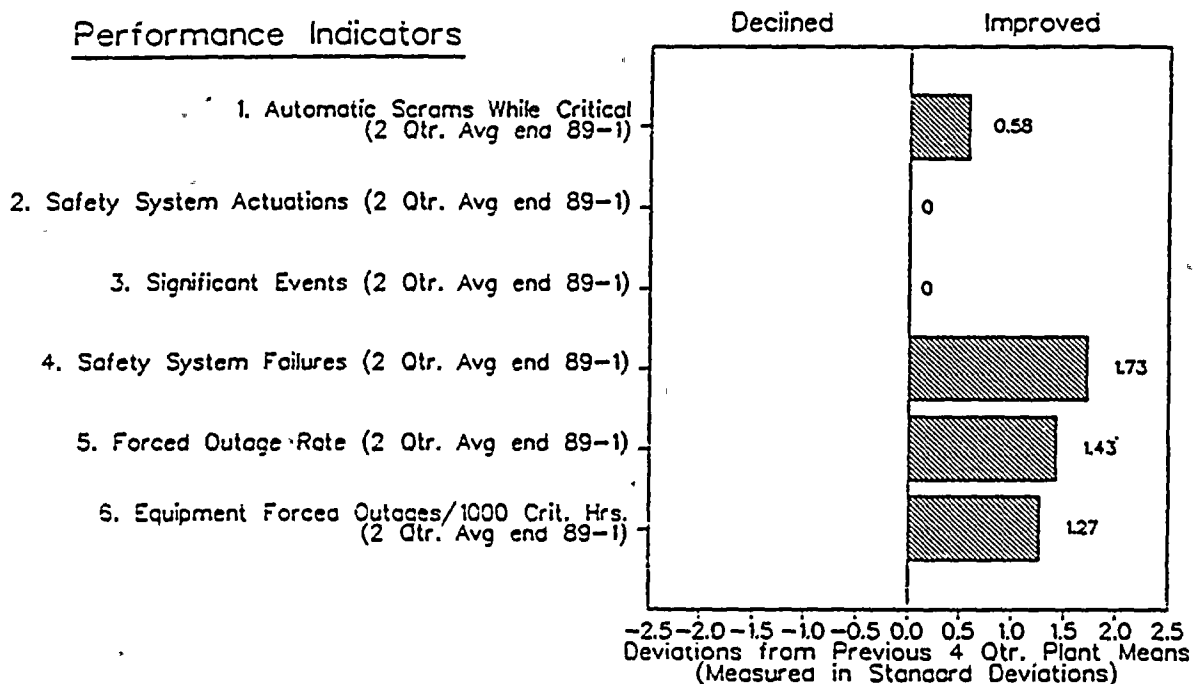
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FIGURE 4.103

PREDICTIONAL

TURKEY POINT 4: Trends

Performance Indicators



TURKEY POINT 4: Deviations from Older Plant Means

Performance Indicators

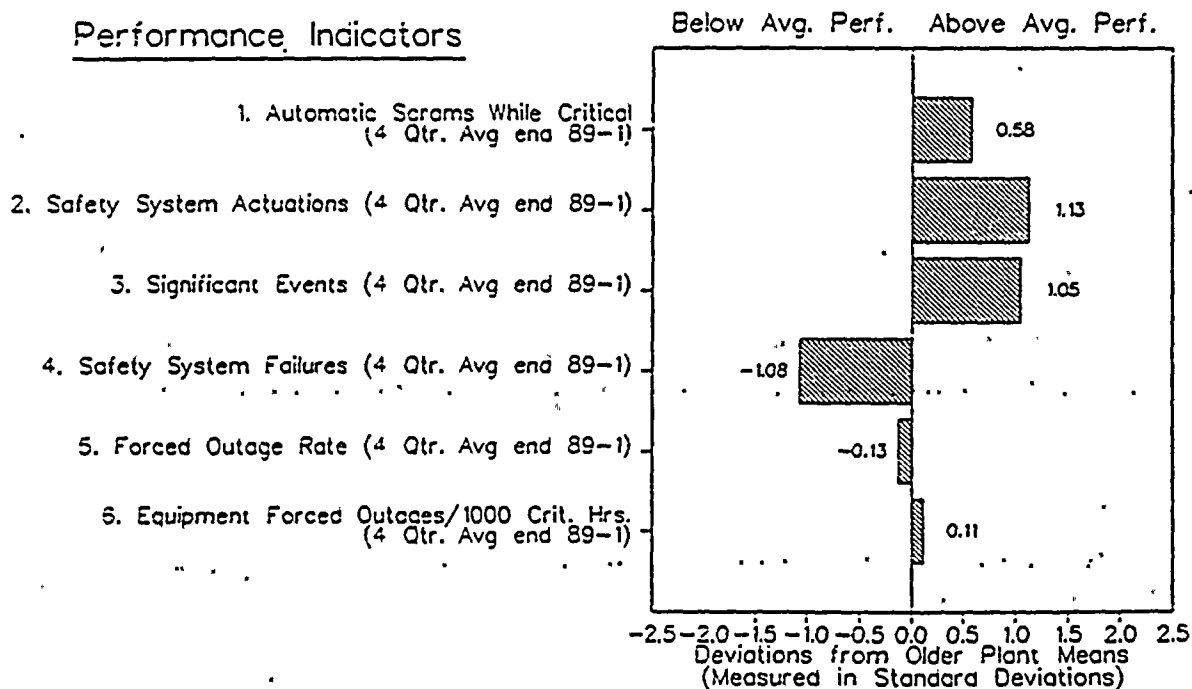


TABLE 9.102

TURKEY POINT 3

PREDECISIONAL

PI EVENTS FOR 88-2

SSF 05/13/88 LER# 25088008 50.72#: 12278 POWER: 100
SYSTEM: RESIDUAL HEAT REMOVAL SYSTEM (PWR) (SPECIAL NON-EIIS CODE
DESC: POTENTIAL FOR LACK OF ADEQUATE NPSH TO RHR, CONTAINMENT SPRAY, AND HPSI PUMPS IF RHR TAKING SUCTION FROM CONTAINMENT SUMP AND OTHER PUMPS TAKING SUCTION OFF RHR (PIGGYBACK) DURING POST LOCA CONDITIONS.

SSF 05/29/88 LER# 25088011 50.72#: 12430 POWER: 100
SYSTEM: EMERGENCY ONSITE POWER SUPPLY SYSTEM (DIESELS)
DESC: LOCKED CLOSED VALVE DISCOVERED IN DIESEL FUEL OIL SYSTEM. WITH THIS CONDITION THE DIESELS WOULD HAVE BEEN ABLE TO START, BUT WOULD RUN FOR ONLY EIGHT HOURS.

PI EVENTS FOR 88-3

SSF 08/22/88 LER# 25088018 50.72#: 13256 POWER: 100
SYSTEM: ENGINEERED SAFETY FEATURES ACTUATION SYSTEM
DESC: POTENTIAL LOSS OF BOTH TRAINS OF CONTAINMENT SPRAY, RHR, AND 2/4 SI PUMPS IF AN ACCIDENT WAS TO OCCUR DURING PERFORMANCE OF THE MONTHLY ECCS VALVE CYCLING PROCEDURE. PROCEDURE IN ERROR.

SSF 09/13/88 LER# 25088021 50.72#: POWER: 100
SYSTEM: LOW TEMPERATURE/OVERPRESSURE SYSTEM (SPECIAL NON-EIIS CODE
DESC: STROKE TIME OF PORVS (LTOP) EXCEED THE AS SPECIFIED TECH.SPEC. BASIS EVALUATION TIME. DESIGN BASIS OPENING TIME WAS NOT MET. INADEQUATE DESIGN REVIEW PROCESS.

SSF 09/20/88 LER# 25088022 50.72#: 13720 POWER: 100
SYSTEM: EMERGENCY ONSITE POWER SUPPLY SYSTEM (DIESELS)
DESC: THE "B" DIESEL GENERATOR WAS OUT OF SERVICE FOR PLANNED MAINTENANCE. THE "A" DIESEL GENERATOR WAS DECLARED OOS DUE TO EXCESSIVE FUEL INLET PRESSURE. FILTER REPLACEMENT INTERVAL HAS BEEN SHORTENED.

PI EVENTS FOR 88-4

SSF 10/13/88 LER# 25088025 50.72#: POWER: 0
SYSTEM: ESSENTIAL SERVICE WATER SYSTEM
DESC: A POTENTIAL INTERACTION BETWEEN THE EDG SEQUENCER AND ESW SYSTEM DISCOVERED. IF "A" TRAIN ESW TRIPPED AND "B" TRAIN WAS ALREADY RUNNING, "C" TRAIN ESW PUMP WOULD START AND OVERLOAD EDG.

PI EVENTS FOR 89-1

SSF 01/10/89 LER# 25089001 50.72#: 14455 POWER: 0
SYSTEM: ESSENTIAL SERVICE WATER SYSTEM
DESC: AN EMERGENCY SOURCE OF POWER WAS NOT AVAILABLE TO THE RHR SYSTEM. "B" EDG WAS INOPERABLE FOR TESTING WHEN THE 3A INTAKE COOLING WATER PUMP WAS SECURED.

TABLE 9.102 (CONT.)

TURKEY POINT 3 (CONT.)

PREDECISIONAL

PI EVENTS FOR 89-1 (CONT.)

SE 01/16/89 LER# 50.72#: 14512 POWER: 0
DESC: LICENSEE FOUND LEAKS IN 3 REACTOR CORE THIMBLE GUIDE TUBES.

SCRAM 02/10/89 LER# 25089004 50.72#: 14714 POWER: 0
DESC: INADEQUATE PROCEDURE DID NOT IDENTIFY PROBLEM WHEN TESTING TURBINE ONLINE OR OFFLINE CAUSING THE SCRAM
WHILE THE REACTOR WAS CRITICAL.

TABLE 9.103

TURKEY POINT 4

PREDECISIONAL

PI EVENTS FOR 88-2

05/13/88 LER# 25088008 50.72#: 12278 POWER: 100
EM: RESIDUAL HEAT REMOVAL SYSTEM (PWR) [SPECIAL NON-EIIS CODE
: POTENTIAL FOR LACK OF ADEQUATE NPSH TO RHR, CONTAINMENT SPAY, AND HPSI PUMPS IF RHR TAKING SUCTION FROM CONTAINMENT SUMP AND OTHER PUMPS TAKING SUCTION FROM RHR (PIGGYBACK) DURING POST LOCA CONDITIONS

05/29/88 LER# 25088011 50.72#: 12430 POWER: 100
EM: EMERGENCY ONSITE POWER SUPPLY SYSTEM (DIESELS)
: LOCKED CLOSED VALVE DISCOVERED IN DIESEL FUEL OIL SYSTEM. WITH THIS CONDITION THE DIESELS WOULD HAVE BEEN ABLE TO START BUT WOULD RUN FOR ONLY EIGHT HOURS.

PI EVENTS FOR 88-3

RAM 08/19/88 LER# 25188010 50.72#: 13246 POWER: 100
: REACTOR TRIPPED ON LOW SG LEVEL. THIS WAS DUE TO PERSONNEL ERROR IN THAT THE OPERATOR SELECTED THE WRONG CHANNEL FOR TESTING. THE FEEDWATER REGULATING VALVE WAS DRIVEN SHUT.

08/22/88 LER# 25088018 50.72#: 13256 POWER: 65
EM: ENGINEERED SAFETY FEATURES ACTUATION SYSTEM
: POTENTIAL LOSS OF BOTH TRAINS OF CONTAINMENT SPRAY, RHR, AND 2/4 SI PUMPS IF AN ACCIDENT WAS TO OCCUR DURING PERFORMANCE OF THE MONTHLY ECCS VALVE CYCLING PROCEDURE. PROCEDURE IN ERROR.

09/13/88 LER# 25088021 50.72#: POWER: 100
EM: LOW TEMPERATURE/OVERPRESSURE SYSTEM [SPECIAL NON-EIIS CODE
: STROKE TIME OF PORVS (LTOP) EXCEED THE AS SPECIFIED TECH.SPEC. BASIS EVALUATION TIME. DESIGN BASIS OPENING TIME WAS NOT MET. INADEQUATE DESIGN REVIEW PROCESS.

PI EVENTS FOR 88-4

10/13/88 LER# 25088025 50.72#: POWER: 0
EM: ESSENTIAL SERVICE WATER SYSTEM
: A POTENTIAL INTERACTION BETWEEN THE EDG SEQUENCER AND ESW SYSTEM DISCOVERED. IF "A" TRAIN ESW TRIPPED AND "B" TRAIN WAS ALREADY RUNNING, "C" TRAIN ESW PUMP WOULD START AND OVERLOAD EDG.

PI EVENTS FOR 89-1

02/09/89 LER# 25189001 50.72#: 14704 POWER: 0
EM: RESIDUAL HEAT REMOVAL SYSTEM (PWR) [SPECIAL NON-EIIS CODE
: RHR PUMP "4A" (THE ONLY OPERABLE RHR PUMP) WAS RENDERED TECHNICALLY INOPERABLE WHEN ITS EMERGENCY EDG WAS TESTED. CAUSED BY MIS-COMMUNICATION BETWEEN OPERATIONS PERSONNEL.

MEETING ON PERFORMANCE INDICATORS
11/12/89

<u>Name</u>	<u>Org</u>	<u>Tele</u>
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