

MEMORANDUM FOR: Charles E. Rossi, Director  
Division of Operational Events Assessment  
Office of Nuclear Reactor Regulation

FROM: Wayne Lanning, Chief  
Events Assessment Branch  
Division of Operational Events Assessment  
Office of Nuclear Reactor Regulation

SUBJECT: THE OPERATING REACTORS EVENTS MEETING  
February 23, 1988 - MEETING 88-08

On February 23, 1988 an Operating Reactors Events meeting (88-08) was held to brief senior managers from NRR, RES, AEOD and Regional Offices on events which occurred since our last meeting on February 16, 1988. The list of attendees is included as Enclosure 1.

The events discussed and the significant elements of these events are presented in Enclosure 2. The Enclosure 3 presents a tabulation of long-term followup assignments to be completed and a summary of reactor scrams. No events were suggested for long term followup. No significant events were identified for input to NRC's performance indicator program. Enclosure 4 provides a 50.72 report tabulation and summary for February 15 through February 22, 1988.

Wayne Lanning, Chief  
Events Assessment Branch  
Division of Operational Events Assessment  
Office of Nuclear Reactor Regulation

Enclosures:  
As stated

cc w/Enclo.:  
See Next Page

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*IDR-5-1  
OPERATING  
EXPERIENCE*

OFC	:EAB:NRR	:C:EAB:NRR	:	:	:	:	:
	<i>MLR</i>	<i>WL</i>	:	:	:	:	:
NAME	:MLReardon	:WLanning	:	:	:	:	:
DATE	:02/25/88	:02/25/88	::	:	:	:	:



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

FEB 26 1988

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cc:

T. Murley  
F. Miraglia  
E. Jordan  
E. Jordan  
E. Beckjord  
W. Russell, RI  
B. Davis, RIII  
J. Nelson Grace, RII  
R. D. Martin, RIV  
J. B. Martin, RV  
W. Kane, RI  
L. Reyes, RII  
C. Norelius, RIII  
J. Callan, RIV  
D. Kirsch, RV  
S. Varga  
D. Crutchfield  
B. Boger  
G. Lainas  
G. Holahan  
L. Shao  
J. Partlow  
B. Grimes  
F. Congel  
E. Weiss  
S. Black  
T. Martin  
J. Stone  
R. Hernan  
H. Bailey  
J. Guttmann  
A. Thadani  
S. Rubin

J. Sniezek  
J. Forsyth, INPO  
M. Slosson  
R. Capra  
R. Samworth  
G. Knighton  
E. Sylvester  
E. Adensam

LIST OF ATTENDEES  
OPERATING REACTORS EVENTS BRIEFING (88-C8)  
February 23, 1988

<u>NAME</u>	<u>ORGANIZATION</u>	<u>NAME</u>	<u>ORGANIZATION</u>
W. Lanning	NRR/DOEA	S. Varga	NRR/DRP
R. Lobel	NRR/DOEA	E. Adensam	NRR/PD II-I
K. Eccleston	NRR/ADR-2	T. Silko	AEOD
D.M. Crutchfield	NRR/DRSP	G. Klingler	NRR/PMAS
R. Capra	NRR/PD I-I	F. Gillespie	NRR/PMAS
M.L. Slosson	NRR/PD I-I	R. Wright	NRR/ADR-4
F. J. Miraglia	NRR/ADP	B. Grimes	NRR/DRIS
J. Zwolinski	NRR/DLPQ	V. Benaroya	AEOD/DSP
M.L. Reardon	NRR/DOEA	J. Heltemes	AEOD
R. Scholl	NRR/DOEA	D. Tondl	NRR/DEST
B. Reckley	AEOD/IRB	F. Rosa	NRR/SELB
B. Stransky	AEOD/DOA	G. Holahan	NRR/DRSP
P. Baranowsky	NRR/DOEA	E. Sylvester	NRR/DLPQ
V. Benaroya	AEOD/DSP	J. Roe	NRR/DLPQ
G. Gears	OSP		

OPERATING REACTORS EVENTS BRIEFING 88-08

TUESDAY, FEBRUARY 23, 1988, 11:00 A.M.

THIS INFORMATION MAY ALSO BE OBTAINED BY DIALING EXTENSION 21449.

WPPSS NUCLEAR PROJECT 2

SECONDARY CONTAINMENT  
OVERPRESSURIZATION

POTENTIAL DRAINING OF  
SUPPRESSION POOL

BRUNSWICK 1 & 2

MULTIPLE PROBLEMS AT  
BRUNSWICK STATION

INDIAN POINT 2

POTENTIAL COMMON MODE  
FAILURE OF SERVICE WATER  
SYSTEM

WPPSS NUCLEAR PROJECT 2  
SECONDARY CONTAINMENT OVERPRESSURIZATION  
FEBRUARY 15, 1988

PROBLEM

DURING BREAKER TESTING, THE REACTOR BUILDING SUPPLY FAN WAS INADVERTENTLY STARTED WITH ITS ASSOCIATED TRIP CIRCUITRY DE-ENERGIZED, THUS OVERPRESSURIZING CONTAINMENT TO THE POINT OF FAILURE BEFORE THE FAN WAS LOCALLY TRIPPED.

CAUSE

- INSTALLATION DEFECTS AND PERSONNEL ERRORS CONTRIBUTED TO EVENT.
- o LOOSE FUSE CLIP PREVENTED TRIP CIRCUIT FROM BEING ENERGIZED
  - o AN "A" CONTACT (OFF THE FEEDER BREAKER SUPPLYING THE 1B FAN) WAS WIRED OUT OF THE CIRCUIT CAUSING THE SUPPLY FAN TO AUTO START WHEN TAKEN OUT OF THE PULL-TO-LOCK.
  - o EQUIPMENT OPERATOR AND CONTROL ROOM OPERATOR HAD NO INDICATION OF FAN STATUS NEVERTHELESS CONTINUED WITH THE EVOLUTION ANYWAY.

SIGNIFICANCE

- o FAILURE IN NON-SAFETY HVAC COULD COMPROMISE SECONDARY CONTAINMENT INTEGRITY.
- o SECONDARY CONTAINMENT MAY HAVE FAILED AT LESS THAN ITS DESIGN PRESSURE.
- o REPAIR EVOLUTION, GRANTED 48 HOUR EMERGENCY T.S. RELIEF.

DISCUSSION

- o WHILE SHUTDOWN TO PLUG SEVERED CONDENSER TUBE, WNP-2 WAS CONDUCTING SHORT TERM INSPECTION OF WESTINGHOUSE CIRCUIT BREAKER (PER NRC BULLETIN 88-01).
- o COMPLETED INSPECTION OF 480V BREAKER FOR THE REACTOR BUILDING SUPPLY FAN AND WAS RETURNING FOR SERVICE.
  - EQUIPMENT OPERATOR REINSTALLED 2 FUSE BLOCKS BUT FAILED TO NOTICE LACK OF LOCAL BREAKER POSITION INDICATION.

CONTACT: L. ZERR

REFERENCE: ERN 11508, DR 02/16/88, DR 02/19/88, PNO-V-88-13

- CONTROL ROOM OPERATOR OBSERVED NO INDICATION BUT TOOK THE SWITCH OUT OF PULL-TO-LOCK ANYWAY. HE THEN REPLACED THE LIGHT BULB, BUT STILL HAD NO INDICATION (POWERED OFF TRIP CIRCUITRY).
- CONTROL ROOM SUPERVISOR AND OPERATOR SAW THAT D/P (BETWEEN OUTSIDE AND CONTAINMENT) PEGGED THE METER AT 6.5" OF WATER AND THEN DROPPED OFF TO 1.5", DISPATCHED EQUIPMENT OPERATOR TO LOCALLY TRIP FAN.
- FAN RAN FOR NINE MINUTES BEFORE TRIPPED, BOTH FUSE BLOCKS WERE REPLACED, LOOSE CLIP WAS NOT FIXED, BUT AFTER INSTALLATION THEY HAD INDICATION.
- CONTROL ROOM OPERATOR THEN TOOK FAN SWITCH OUT OF THE PULL-TO-LOCK POSITION AND THE FAN AUTO STARTED AGAIN. HE THEN STARTED THE EXHAUST FAN.
- ONCOMING EQUIPMENT OPERATOR NOTICED NUMEROUS NUTS AND BOLTS ON THE REFUELING FLOOR APPROXIMATELY 2 HOURS LATER.
- ONE HOUR LATER SECONDARY CONTAINMENT WAS DECLARED INOPERABLE. OPENING IS 18" BY 30 FEET.

#### OTHER INTERESTING ITEMS

- o FAN RAN FOR APPROXIMATELY 2 MINUTES BEFORE THE SHEARING BOLTS SHEARED (DESIGNED TO SHEAR AT .5 PSI OR APPROXIMATELY 14" OF H<sub>2</sub>O).
- o B CHANNEL WHICH POWERS THE B FAN TRIP CIRCUITRY HAD A MISSING WIRE WHICH WOULD HAVE PREVENTED THE TRIP IF THE FANS HAD BEEN REVERSED.
- o HAD SIMILAR PROBLEM IN THE PAST AND A WORK REQUEST WAS SUBMITTED TO TROUBLESHOOT THE PROBLEM BUT NEVER CARRIED THROUGH TO THE DEGREE NECESSARY TO FIND THE ROOT CAUSE.

#### FOLLOWUP

- o REPAIR TO BE COMPLETED BY MARCH 2, 1988.
- o LICENSEE INVESTIGATING INSTALLATION:
  - BLOW OUT PANELS ON WALLS AND/OR ROOF.
  - ELECTRICAL INTERLOCKS BETWEEN SUPPLY AND EXHAUST FANS AND/OR EXHAUST FAN AND DISCHARGE VALVE.
- o PLANT SYSTEMS BRANCH CONCLUDED SER ON REPAIR ACTIVITY.
- o EAB EVALUATING GENERIC IMPLICATIONS.

WPPSS NUCLEAR PROJECT 2  
POTENTIAL DRAINING OF SUPPRESSION POOL  
JANUARY 16 AND FEBRUARY 19, 1988

PROBLEM

LICENSEE CONCLUDED THAT A SINGLE FAILURE COULD CAUSE THE SUPPRESSION POOL TO DRAIN THROUGH A 2" LINE.

CAUSE

DESIGN DEFICIENCY.

DISCUSSION

- o EARTHQUAKE CAUSES NON-SEISMIC SUCTION PIPING OF RCIC (FROM THE CST) TO FAIL.
- o RCIC SUCTION VALVE (RCIC-V-10) FAILS TO CLOSE.
- o FLOW PATH EXISTS VIA THE KEEP-FILL PUMP SUCTION LINE WHICH COULD DRAIN THE SUPPRESSION POOL (KEEP-FILL PUMP BYPASSES RCIC SUCTION CHECK VALVE).
- o MANUAL OPERATOR ACTION TO CLOSE RCIC-V-31.
- o LICENSEE IMMEDIATE ACTION WAS TO ALIGN RCIC SUCTION TO THE SUPPRESSION POOL.
- o PART 21 TO BE FILED.
- o CHECK VALVE MAY BE INSTALLED UPSTREAM OF RCIC-V-10.

FOLLOWUP

EAB IS ASSESSING GENERIC IMPLICATIONS.

CONTACT: L. ZERR

REFERENCES: ERNs 11296 AND 11341, DRs 01/26/88 AND 02/19/88.





BRUNSWICK 1 & 2  
MULTIPLE PROBLEMS AT BRUNSWICK STATION  
FEBRUARY 1988

PROBLEMS

1. BY 50.72 REPORT 11419, DATED FEBRUARY 2, 1988, THE LICENSEE NOTIFIED THE STAFF OF A HYDROGEN CONCENTRATION GREATER THAN THE FLAMMABLE LIMIT IN THE UNIT ONE TURBINE BUILDING. HYDROGEN RELEASED FROM A NEWLY INSTALLED VALVE WHICH WAS NOT TESTED PRIOR TO BEING PLACED INTO SERVICE. THE REACTOR AND TURBINE BUILDING WAS EVACUATED AND THE HYDROGEN SUPPLY ISOLATED.
  
2. IN THE FEBRUARY 16 MORNING REPORT, THE LICENSEE NOTIFIED US THAT A NITROGEN INERTING LINE HAD FAILED. AS A RESULT, SAND COVERING THE LINE, HAD BEEN INTRODUCED INTO BOTH TORUS OF BOTH UNITS AND TORUS VACUUM BREAKERS OF UNIT 2. SINCE THEN THE NITROGEN LINE HAS BEEN CLEANED OUT AND REPAIRED AND SAND REMOVED FROM BOTH UNITS. THE VACUUM VALVES HAVE BEEN TESTED SATISFACTORILY.
  
3. BY 50.72 REPORT 11514 DATED FEBRUARY 19, 1988 THE LICENSEE NOTIFIED THE STAFF OF MANY FAILED BOLTS IN VITAL DC SYSTEMS AND A FEW IN THE AC SYSTEMS AS INDICATED BY SEVERE CRACKING NEAR THE BOLT HEADS. THE FAILURES IN THE AC SYSTEMS ARE BELIEVED TO BE RANDOM. THE FAILURES IN DC SYSTEMS ARE DUE TO OVERTORQUING AT TIME OF CONSTRUCTION. ALL SUCH BOLTS WERE OVERTORQUED DUE TO WRONG TORQUE VALUES SUPPLIED BY GENERAL ELECTRIC. THE ERROR WAS DETECTED BY GE AND CP&L WAS NOTIFIED PRIOR TO STARTUP. THE BOLTS WERE REPLACED IN THE AC SYSTEMS, BUT, FOR AN UNKNOWN REASON, THE DC SYSTEMS WERE NOT REPAIRED.

GENERAL ELECTRIC IS REVIEWING ITS RECORDS TO DETERMINE IF ANY OTHER NUCLEAR PLANTS ARE INVOLVED.

CONTACT: R. SCHOLL

REFERENCES: DR 02/16/88 AND ERN 11545

INDIAN POINT 2  
POTENTIAL COMMON MODE FAILURE OF SERVICE WATER SYSTEM

PROBLEM

POTENTIAL COMMON MODE FAILURE OF SERVICE WATER PUMPS DUE TO ENERGETIC FAILURE OF THE ASSOCIATED POWER CABLING.

CAUSE

DEGRADATION DUE TO WATER INTRUSION IN CABLE SPLICES.

SAFETY SIGNIFICANCE

POTENTIAL LOSS OF ULTIMATE HEAT SINK.

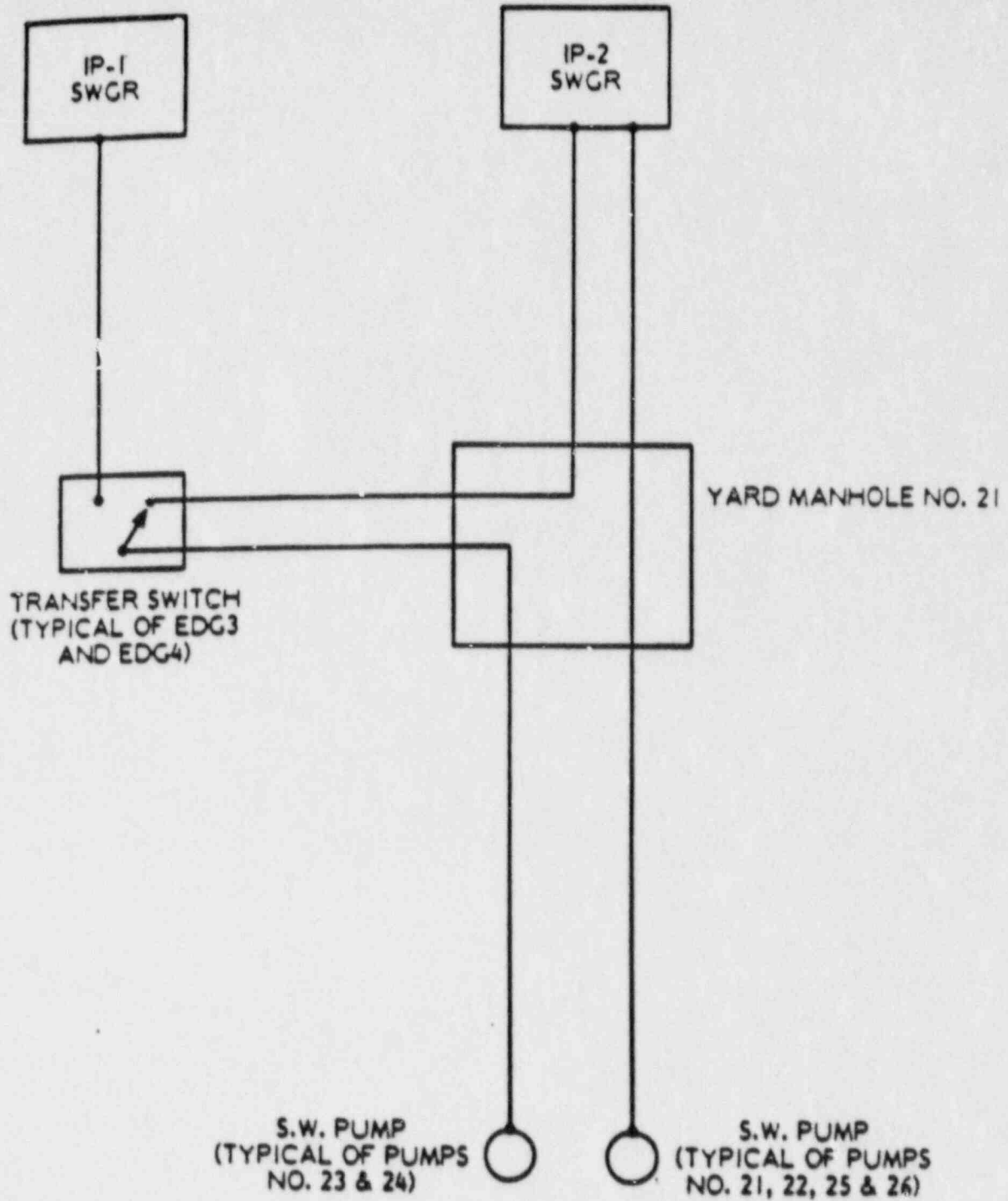
DISCUSSION

- o RECENT SAFETY SYSTEM FUNCTIONAL INSPECTION IDENTIFIED POTENTIAL COMMON MODE FAILURE.
- o ALL SERVICE WATER PUMP POWER CABLES RUN FROM PLANT SWITCHGEAR TO ALL SIX PUMPS THROUGH ONE MANHOLE.
- o CABLES SPLICED IN ONE MANHOLE - ONE CONFIGURATION FOR TWO ALTERNATE SHUTDOWN PUMPS, ONE CONFIGURATION FOR FOUR REMAINING PUMPS.
- o ALTERNATE SHUTDOWN PUMPS HAVE EXPERIENCED TWO ENERGETIC FAILURES SINCE 1985 DUE TO WATER INTRUSION.
- o MANHOLE PARTIALLY FILLED WITH SAND IN 1985 FOR FIRE PROTECTION.
- o MANHOLE OFTEN FLOODED.

FOLLOWUP

- o THE LICENSEE IS EVALUATING.
- o LICENSEE TO PRESENT SHORT- AND LONG-TERM CORRECTIVE ACTIONS TO RESOLVE PROBLEM AND JUSTIFICATION FOR CONTINUED OPERATION AT MEETING AT REGION I - 02/26/88.

CONTACT: M. SLOSSON



**FIGURE 4.15-1**  
**TYPICAL ARRANGEMENT - SERVICE WATER**  
**PUMP POWER CABLES - ONE LINE**

LONGTERM FOLLOWUP ASSIGNMENTS TO BE COMPLETED

<u>ORGANIZATION</u>	<u>LONGTERM FOLLOWUPS OUTSTANDING</u>			
	<u>02/02/88</u>	<u>02/09/88</u>	<u>02/16/88</u>	<u>02/23/88</u>
EAB	2	2	2	2
EMTB	0	0	0	1
ESGB	1	1	1	1
ICSB	2	2	2	2
OGCB	1	1	1	1
OTSB	2	1	1	1
PD2-2	1	1	1	1
PD2-3	1	1	1	1
PD3-2	1	1	1	1
PD3/4/5	0	0	0	1
PD5	2	2	2	1
RIII	0	0	1	1
RVIB	4	4	4	3
SELB	5	5	5	6
SPLB	5	5	5	5
SRXB	<u>2</u>	<u>2</u>	<u>3</u>	<u>4</u>
<u>TOTAL</u>	29	28	30	32

REACTOR SCRAM SUMMARY

WEEK ENDING 02/21/88

I. PLANT SPECIFIC DATA

DATE	SITE	UNIT	POWER	SIGNAL	CAUSE	COMPLI- CATIONS	YTD	YTD	YTD
							ABOVE 15%	BELOW 15%	TOTAL
02/15/88	VOGTLE	1	100	A	EQUIPMENT	NO	2	0	2
02/16/88	SURRY	1	100	A	PERSONNEL	NO	1	0	1
02/16/88	SUMNER	1	100	A	EQUIPMENT	NO	1	0	1
02/17/88	ARKANSAS	1	80	A	EQUIPMENT	NO	1	0	1
02/19/88	SAN ONCERE	3	100	M	UNKNOWN	NO	1	0	1
02/20/88	BRAIDWOOD	2	0	A	EQUIPMENT	NO	0	1	1

NOTES

1. PLANT SPECIFIC DATA BASED ON INITIAL REVIEW OF 50.72 REPORTS FOR THE WEEK OF INTEREST. PERIOD IS MIDNIGHT SUNDAY THROUGH MIDNIGHT; SUNDAY SCRAMS ARE DEFINED AS REACTOR PROTECTIVE ACTUATIONS WHICH RESULT IN ROD MOTION, AND EXCLUDE PLANNED TESTS OR SCRAMS AS PART OF PLANNED SHUTDOWN IN ACCORDANCE WITH A PLANT PROCEDURE. THERE ARE 109 REACTORS HOLDING AN OPERATING LICENSE.
  
2. COMPLICATIONS: RECOVERY COMPLICATED BY EQUIPMENT FAILURES OR PERSONNEL ERRORS UNRELATED TO CAUSE OF SCRAM.
  
3. PERSONNEL RELATED PROBLEMS INCLUDE HUMAN ERROR, PROCEDURAL DEFICIENCIES, AND MANUAL STEAM GENERATOR LEVEL CONTROL PROBLEMS.
  
4. "OTHER" INCLUDES AUTOMATIC SCRAMS ATTRIBUTED TO ENVIRONMENTAL CAUSES (LIGHTNING), SYSTEM DESIGN, OR UNKNOWN CAUSE.

Tabulation - 50.72 Reports for the past week:

(1)	Total number of reports	48
(2)	Plants in outage	15
(3)	Plants in power ascension	5
(4)	Summary of causes	
DC	Constr error or inadequacy	1
DE	Design error or inadequacy	2
DX	Other des/mfg/constr inadeq	1
HA	Accidental action	2
HF	Failure to follow procedure	3
HX	Human actions, other	1
IC	Internal to Component	5
IE	Ambient env stress	1
MS	Scheduled maintenance	1
FC	Defective Cal/test proc	2
FO	Defective Operations proc	1
U	Unknown	21
	No cause - info only	7

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Plant Status - 2/22/88

Plants in power ascension testing or scheduled outages, especially refueling, are more likely to produce more reports due to the increased activities occurring, therefore a listing of those plants in either activity is useful.

A. Plants in refueling and scheduled outages during the week:

Arkansas 2	Ginna	Oconee 2
Beaver Valley 1	Haddam Neck	Palo Verde 1
Braidwood 1	Hatch 2	Pilgrim
Brunswick 1 & 2	Hope Creek	Robinson 2
Catawba 2	Nine Mile Point 1	San Onofre 1

B. Plants in power ascension testing during the week:

Braidwood 2    Fermi 2    Nine Mile Point 2    South Texas 1



5072 REPORT SUMMARY  
for

02/15/88 through 02/22/88

FACILITY	VENDOR	EVENT NUMBER	EVENT DATE	POWER/CONDITION	RADIATION RELEASE	SALP CATEGORY	SYSTEM	COMPONENT	CAUSE	EFFECT	PLANT	BRIEF DESCRIPTION
ARKANSAS 1	BE	11329	02/17/88	80	N	4	IU	ZZZ	U	SAE		SRP 7 MODE DROPPED DURING SURV; TRIP ON LOW PRESS
BEAVER VALLEY 1	WE	11331	02/19/88	CSD	N	1	PT	PHD	MP	SS		RTR TRIP BRKRS LEFT OPEN; LOW S/G LVL FROM OPS
BEAVER VALLEY 2#	WE	11332	02/19/88	37	N	1	EB RI	RLY RI	IC	EI		SPIKE CAUSED SUPP LK MET SYS TO 60 FILTER MODE
BRAINWOOD 1#	WE	11334	02/20/88	HSD	N	1	IM MK	RI FAM	U	EI		FUEL HDLS BLDG RAB MON TIMED OUT; SYS TO FILTER
BRAINWOOD 2	WE	11338	02/20/88	HSD	N	1	EB	INV	U	SS		INVERTOR TRIPPED-SCRAM SIGNAL, MFB & 1 OTHER ISOL
BROWNS FERRY 1	SE	11333	02/18/88	DFL	N	4				INFO		FAA NOTIFIED OF PLANT STACK LIGHTS BEING OUT
BROWNS FERRY 1	SE	11330	02/19/88	DFL	N	4				INFO		FAA NOTIFIED OF PLANNED LOSS OF STACK LIGHTS
BROWNS FERRY 2	SE	11360	02/20/88	DFL	N	3	PR	PUX	MP	EI		RPS A MOMENTARY PER LOSS; MULTIPLE SIGNALS;
BRUNSWICK 1	SE	11339	02/18/88	CSD	N	1	IM ZY	ZZZ COM	U	EI		MSIV ISOL SIGNAL FOLLOWING TURBINE TRIP SIGNAL
BRUNSWICK 1	SE	11343	02/19/88	CSD	N	4			DC	DM		BOLTS USED TO TIE ELECTRICAL BUSES OVERTORQUE
CALVERT CLIFFS 2	CE	11348	02/19/88	100	N	1,3	BS	LE	U	P1		SI TANK LVL TRANSMITTER REPLACED; LVL FOUND LOW
CATAWBA 1	WE	11319	02/16/88	98	N					FR		EVERT NO. 11491 RETRACTED
CATAWBA 2	WE	11332	02/17/88	CSD	N	4	IM CE	CMTR TE	HA U	EI		AUTO START OF AFM PUMP WHILE INSTALLING JUMPERS;
CATAWBA 2	WE	11333	02/19/88	HSD	N	1				EI		FDWTR ISOL; RR RING RCS RTD'S SPIKED HI & LOW
DIABLO CANYON 1#	WE	11330	02/17/88	73	N	3	EB IM	72 RI	PH	EI		BRKR TO INVERTOR TRIPPED; CONT VENT ISOL FROM SPIKE
HARRIS 1	WE	11331	02/17/88	100	N	3	IM	III	IC	EI		RELAY RACE DURING POST-MAIN TESTING, AFM SYM#1
HATCH 1	SE	11310	02/15/88	100	N	4	IK	III	PC	LCOI		TESTING FOR PART OF APRR'S NOT PERFORMED
HATCH 1#	SE	11323	02/17/88	100	N	4	EH CI	D5L PFLY	M5 IC	LCO2		2 EDG'S INOP; ONE RESTORED
HOPE CREEK 1	SE	11363	02/20/88	CSD	N	4	FI	CVZ	U	INFO		B FDWTR LINE ISOL CHK VLV'S FAILED LLRT
NINE MILE POINT 1	SE	11361	02/20/88	CSD	N	4	BE	CVZ	IC	MORE		BOTH CHK VLV'S IN SLC INJECTION LINE FAILED LLRT
NINE MILE POINT 2	SE	11310	02/16/88	CSD	N	3	FA	ISVZ	MI	EI		MSIV ISOLATION WHILE TURBINE STOP VLV'S BEING ADJ
NINE MILE POINT 2	SE	11340	02/19/88	CSD	N	12	IM	RI	DI	MORE		MSL RAD MON STPTS NON-CONSERV BASED ON S/U DATA
PALO VERDE 2#	CE	11366	02/21/88	CSD	N	1	BD IM	III ZZZ	U	UE		SIAS & CONT ISOL ON LOW PZR PRESS SIGNAL; EIT INJ
POINT BEACH 1	WE	11337	02/18/88	100	N	3,12	ZY	DR	DE	DM		DOORS COULD OPEN IF POWER LOST, ES, FROM A FIRE
POINT BEACH 1	WE	11346	02/19/88	100	N	12	FI	III	DE	DM		POSSIBLE ANALYZED FDWTR INTO S/G FOR STM LINE BRK

\*This event involves multiple components.

5072 REPORT SUMMARY

for  
02/15/88 through 02/22/88

FACILITY	VENDOR	EVENT NUMBER	EVENT DATE	POWER/CONDITION	RADIATION RELEASE	SALP CATEGORY	SYSTEM COMPONENT	CAUSE	PLANT EFFECT	BRIEF DESCRIPTION
RIVER BEND 1	GE	11541	02/19/88	100	N	1	AI	MOT	IC	SHUTTING DOWN DUE TO FAILED RECIRC PUMP MOTOR
ROBINSON 2	WE	11524	02/17/88	CSD	N	6	EL	XIX	U	EMS PHONES OOS EVENT 011273-SETPOINT ACTUALLY W/I TECH SPECS
ROBINSON 2	WE	11549	02/19/88	CSD	N					RTR TRIP BRKR B FAILED SURV; REPLACED
SALEM 2	WE	11527	02/17/88	100	N	4	1U	52	U	CTRL RM VENT ISOL; AMMONIA DETECTOR FAILED CTRL RM VENT ISOL; RAD MON SPIKE (TWICE)
SAN ONOFRE 2	CE	11566	02/20/88	80	N	1	16	T61	U	INADVERTENT SIAS SIGNAL; NO INJECTION; MANUAL TRIP
SAN ONOFRE 2	CE	11565	02/21/88	80	N	1	1R	R1	U	INFO PRESS RELEASE ISSUED-SEC STR B/WMP ACTIVATIONS PLAN INFO FAA NOTIFIED OF A COOLING TOWER LIGHT OUT DN CHARGING PUMP PACKING GLAND B/VOLTS LOOSE
SAN ONOFRE 3	CE	11554	02/19/88	100	N	1	1W	ZZZ	U	A TRAIN ECM OOS; ACTION STATEMENTS NOT ADHERED TO
SEBUYAH 2	WE	11520	02/16/88	HSD	N					ENS & COMMERCIAL PHONES OOS
SEBUYAH 2	WE	11522	02/17/88	HSD	N					TEST JACK BROKE DURING SURV ON MI'S
SEBUYAH 2	WE	11544	02/19/88	HSD	N	3	BK	SEAL	U	TEST SWITCH IN WRO/6 POS DURING SURV; AFM START
					N		BK	PRPB		EMS PHONES OOS
SOUTH TEXAS 1	WE	11517	02/13/88	HSD	N	1,4	CB	XIX	PC	LOSS OF MAIN GEN EXCITER FIELD; AFM START
ST LUCIE 1	CE	11516	02/16/88	100	N	6	EL	XIX	U	RTR BLDG PRESS TO 6.5" WG; SEC CONT BREACHED
SUMNER 1	WE	11521	02/16/88	100	N	4	IK	M1	IC	RAD MON SPIKE CAUSED CONTROL ROOM ISOL
SURRY 1	WE	11513	02/16/88	100	N	4	PT	PUI	MP	BOTH CTRL RM AIR INTAKE RAD MON & EMBG FILT OOS;
TURKEY POINT 3	WE	11559	02/20/88	HSD	N	6	EL	XIX	U	CTRL RM VENT SYS ACTUATION; RAD MON SPIKED
YD6TLE 1	WE	11512	02/13/88	100	N	1	FB	EXC	U	
WASHINGTON MP 2	GE	11508	02/13/88	CSD	N	1	SB	WALL	'E	
					N		HA	FAN	BE	
WATERFORD 3	CE	11543	02/19/88	100	N	1	1N	R1	U	
WATERFORD 3	CE	11562	02/20/88	100	N	1	MH	XIX	U	
					N		1N	R1	U	
					N		MH	XIX	U	
WOLF CREEK 1	WE	11513	02/13/88	HSD	N	1	1N	R1	U	

\*This event involves multiple components.

February 22, 1988

SECURITY EVENT SUMMARY  
for  
02/15/88 through 02/21/88

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FACILITY          NSSS  EVENT  EVENT
                  VENDOR NUMBER DATE
=====
CALVERT CLIFFS 1  CE     11509  02/15/88
CLINTON 1        GE     11511  02/15/88
FT. CALHOUN 1    CE     11526  02/17/88
MOGUIRE 1        WE     11547  02/19/88
MILLSTONE 1      GE     11536  02/18/88
PALO VERDE 1     CE     11523  02/17/88
SAN ONOFRE 1     WE     11528  02/17/88
TROJAN 1         WE     11538  02/18/88
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ES&P CategoriesCause Codes (EPR1)Plant Effects

ES&P Categories	Cause Codes (EPR1)	Plant Effects
1 Plant operations	D Design/Mfg/Constr Inadequacy	DM Systems, equipment, and/or structures found not to be designed, manufactured, constructed, or installed in accordance with approved plant design specifications.
Radiological controls	DR Plant Definition Requirements Inadequacy	
a occupational rad safety	DE Design Error or Inadequacy	
b rad waste management	DM Mfg Error or Inadequacy	
c rad effluent control & monitoring	DC Constr Error or Inadequacy	
d rad mat'l transportation	DI Other	
e water chemistry controls		
3 Maintenance	E Abnormal Environmental Stress	EA ESF actuation - automatic EI ESF actuation - inadvertent or spurious
4 Surveillance	EE EM Interference	EM ESF actuation - manual
5 Fire Protection	EM H2O (spray, flood, etc.)	EF ESF failure
6 Emergency Preparedness	EF Fire	ED ESF degradation
7 Security	ET Temp (abnormal high or low)	EI External event (e.g. fire, earthquake)
8 Outages	ER Radioactive Radiation	FR Follow up report
9 Quality Programs	EC Chemical Reactions	INFO Information report only
10 Licensing Activities	EV Vibration Loads	LCD_ Entry into an LCD with action statement of hours/days. (e.g. LCD2h represents entry into an LCD with a 2 hour action statement; LCD7d would be for a 7 day action statement)
11 Training	EI Impact Loads	
Engineering support	EH Human-caused External Event	
	EM Acts of Nature	
	I Internal	
	IC Internal to Component	
	IE Ambient Env Stress	
	H Human Actions, Plant Staff	
	HP Failure to Follow Procedures	NONE No immediate effect on plant
	HM Misdiagnosis (followed wrong procedure)	PI Power reduction - intentional
	HA Accidental Action	PS Power reduction - automatic (runback)
	HI Other	
	M Maintenance	
	MS Sched Prev Maint (including surv tests and calib)	RA Radioactivity release or contamination event
	MF Forced Maint (repair of a known failure)	SA Scrae - automatic SAE Scrae - automatic w/ESF actuation SME Scrae - manual w/ESF actuation
	F Procedures Inadequacy (ambiguous, incomplete, erroneous)	SM Scrae - manual SS Scrae signal - no rod movement/rods already inserted
	PD Defective Oper Procedure	TS Tech Spec violation
	PM Defective Maint Procedure	UE Unusual Event declared
	PC Defective Calib/Test Procedure	II Other reportable occurrence
	PI Other	