

NOV 25 1992

MEMORANDUM FOR: Brian K. Grimes, Director  
Division of Operating Reactor Support

FROM: Alfred E. Chaffee, Chief  
Events Assessment Branch  
Division of Operating Reactor Support

SUBJECT: OPERATING REACTORS EVENTS BRIEFING  
NOVEMBER 18, 1992 - BRIEFING 92-19

On November 18, 1992, we conducted an Operating Reactors Events Briefing (92-19) to inform senior managers from offices of AEOD, ACRS, RES, NRR, and regional offices of selected events that occurred since our last briefing on November 4, 1992. Attachment 1 lists the attendees. Attachment 2 presents the significant elements of the discussed event.

Attachment 3 contains reactor scram statistics for the weeks ending 11/08/92 and 11/15/92. No significant events were identified for input into the NRC performance indicator program.

Original signed by

Alfred E. Chaffee, Chief  
Events Assessment Branch  
Division of Operating  
Reactor Support

Attachments: As stated

cc w/attachments:  
See next page

DISTRIBUTION:  
Central Files  
PDR  
EAB R/F  
KGray  
EBenner  
LKilgore, SECY

9212110071 921125  
PDR ORG NRRB  
PDR

*KAG*  
EAB/DORS  
KGray:kag  
11/24/92

*RD*  
EAB/DORS  
RDennig  
11/24/92

*T. Koshy*  
EAB/DORS  
T. Koshy  
11/23/92

*al*  
EAB/DORS  
AChaffee  
11/25/92

OFFICIAL RECORD COPY  
DOCUMENT NAME: ORTRANS.KAG (G:KAG)

RETURN TO REGULATORY CENTRAL FILES

*DR031*  
*IDTR-5-1*  
*OPERATING*  
*EXPERIENCE*  
*X OTR-6*  
*MEETING*

cc:

T. Murley, NRR (12G18)  
F. Miraglia, NRR (12G18)  
F. Gillespie, NRR (12G18)  
J. Partlow, NRR (12G18)  
S. Varga, NRR (14E4)  
J. Calvo, NRR (14A4)  
G. Lainas, NRR (14H3)  
J. Roe, NRR (13E4)  
J. Zwolinski, NRR (13H24)  
M. Virgilio, NRR (13E4)  
W. Russell, NRR (12G18)  
J. Richardson, NRR (7D26)  
A. Thadani, NRR (8E2)  
S. Rosenberg, NRR (10E4)  
C. Rossi, NRR (9A2)  
B. Boger, NRR (10H3)  
F. Congel, NRR (10E2)  
D. Crutchfield, NRR (11H21)  
W. Travers, NRR (11B19)  
D. Coe, ACRS (P-315)  
E. Jordan, AEOD (MN-3701)  
T. Novak, AEOD (MN-9112)  
L. Spessard, AEOD (MN-3701)  
K. Brockman, AEOD (MN-3206)  
S. Rubin, AEOD (MN-5219)  
M. Harper, AEOD (MN-9112)  
J. Grant, EDO (17G21)  
R. Newlin, GPA (2G5)  
E. Beckjord, RES (NLS-007)  
A. Bates, SECY (16G15)  
G. Rammling, OCM (16G15)  
T. Martin, Region I  
W. Kare, Region I  
C. Hehl, Region I  
S. Ebnetter, Region II  
E. Merschhoff, Region II  
B. Davis, Region III  
E. Greenman, Region III  
J. Milhoan, Region IV  
B. Beach, Region IV  
J.B. Martin, Region V  
K. Perkins, Region V

R. Wharton (PDIII-3)  
J. Hannon (PDIII-3)

bcc: INPO

ATTN: J. Cowan  
1100 Circle 75, Suite 1500  
Atlanta, GA 30339

ATTACHMENT 1

LIST OF ATTENDEES

OPERATING REACTORS EVENTS FULL BRIEFING (92-19)

NOVEMBER 18, 1992

<u>NAME</u>	<u>OFFICE</u>	<u>NAME</u>	<u>OFFICE</u>
E. BENNER	NRR	C. ROSSI	NRR
R. DENNIG	NRR	T. KING	NRR
T. KOSHY	NRR	R. WHARTON	NRR
K. GRAY	NRR	C. BERLINGER	NRR
J. O'BRIEN	NRR	R. SPENCE	AEOD
D. GARCIA	NRR	J. IBARRA	AEOD
C. GRIMES	NRR	V. BENAROYA	AEOD
J. PARTLOW	NRR	W. MINNERS	RES
J. ROE	NRR	D. COE	ACRS
C. THOMAS	NRR		

TELEPHONE ATTENDANCE  
(AT ROLL CALL)

Regions

Region I  
Region II  
Region III  
Region IV  
Region V

Resident Inspectors

Callaway

AIT Team Leaders

Callaway

Misc.

OPERATING REACTORS EVENTS BRIEFING 92-19  
EVENTS ASSESSMENT BRANCH  
LOCATION: 4 B11, WHITE FLINT  
WEDNESDAY, NOVEMBER 18, 1992, 11:00 A.M.

CALLAWAY, UNIT 1

UNRECOGNIZED FAILURE OF ALL  
CONTROL ROOM ANNUNCIATORS  
(UPDATE) (AIT)

CALLAWAY, UNIT 1  
UNRECOGNIZED FAILURE OF ALL  
CONTROL ROOM ANNUNCIATORS (UPDATE)  
OCTOBER 17, 1992

PROBLEM

UNRECOGNIZED LOSS OF ALL ANNUNCIATORS WITH PLANT AT POWER.

CAUSE

LICENSEE MAINTENANCE ON ONE ANNUNCIATOR POWER SUPPLY RESULTED IN A LOSS OF POWER TO ALL ANNUNCIATORS AND DISABLED ALARM INPUTS TO THE PLANT COMPUTER. OPERATIONS MANAGEMENT DID NOT CLASSIFY THIS POTENTIAL ALERT CONDITION APPROPRIATELY DUE TO A LACK OF UNDERSTANDING OF THE EXTENT OF ANNUNCIATOR INOPERABILITY.

SAFETY SIGNIFICANCE

THE PLANT OPERATORS WERE UNAWARE OF THE EXTENT OF INOPERABILITY OF THE ANNUNCIATORS. IN ADDITION, THE REQUIRED EMERGENCY PROTECTIVE ACTIONS CANNOT BE PROMPTLY IMPLEMENTED IF NRC NOTIFICATIONS AND DECLARATIONS OF EMERGENCY ACTION LEVELS (EAL) ARE NOT MADE.

DISCUSSION

OCT 16, 1840      ONE POWER SUPPLY WAS LOST RESULTING IN A LOSS OF POWER TO APPROXIMATELY 28% OF THE ANNUNCIATORS.

CONTACT:	E. BENNER, NRR/DORS	AIT:	<u>YES</u>
REFERENCE:	10 CFR 50.72 #24453 AND PN39257	SIGEVENT:	<u>TBD</u>

- OCT 17, 0058      POWER SUPPLY REPLACED, ALL APPLICABLE ANNUNCIATORS CLEARED.
- OCT 17, 0100      ALL FOUR POWER SUPPLIES SHORT OUT, REMOVING POWER TO THE ANNUNCIATOR FIELD CONTACTS. HALF OF ANNUNCIATORS LIT SOLID, HALF REMAINED DARK. THE OPERATORS ASSUMED THAT ONLY THE LIT ANNUNCIATORS WERE INOPERABLE. IT IS CURRENTLY BELIEVED THAT THE CAUSE OF THE SHORT WAS THE IMPROPER REMOVAL OF A JUMPER INSTALLED FOR MAINTENANCE ON THE FAILED POWER SUPPLY.
- OCT 17, 0156      FOUR FIELD POWER SUPPLY FUSES REPLACED AND ALL ANNUNCIATORS CLEARED, BUT UNKNOWN TO THE OPERATORS, SEVEN INDIVIDUAL LOGIC CABINET FUSES WERE STILL BLOWN WHICH MADE APPROXIMATELY ONE THIRD OF THE ANNUNCIATORS INOPERABLE.
- OCT 17, 1700      ALL ANNUNCIATORS RESTORED SATISFACTORILY.

SIMILAR EVENTS

THERE HAVE BEEN NUMEROUS INSTANCES OF LOSS OF ANNUNCIATORS AT OTHER PLANTS.



FOLLOWUP

AN AIT WAS SENT TO THE SITE. WEAKNESSES IDENTIFIED BY THE AIT ARE AS FOLLOWS:

- FAILURE TO EVALUATE AND ASSESS THE EXTENT OF THE ANNUNCIATOR FAILURES
- LACK OF KNOWLEDGE BY OPERATORS OF SYSTEM LOGIC AND FAILURE MODES OF ANNUNCIATORS
- LACK OF AN AGGRESSIVE AND QUESTIONING ATTITUDE BY OPERATIONS AND PLANT MANAGEMENT
- BREAKDOWN OF COMMUNICATIONS

THE CALLAWAY SENIOR RESIDENT INSPECTOR IS CURRENTLY WORKING ON A GENERIC COMMUNICATION.

REACTOR SCRAM SUMMARY  
WEEK ENDING 11/08/92

1. PLANT SPECIFIC DATA<sup>(1)</sup>

DATE	SITE	UNIT	POWER	SIGNAL	CAUSE	COMPLI- <sup>(3)</sup> CATIONS	YTD ABOVE 15%	YTD BELOW 15%	YTD TOTAL
11/04/92	NINE MILE POINT	2	100	A	EQUIPMENT	NO	2	0	2
11/05/92	MILLSTONE	3	16	A	EQUIPMENT	NO	2	0	2

REACTOR SCRAM SUMMARY  
WEEK ENDING 11/15/92

1. PLANT SPECIFIC DATA<sup>(1)</sup>

DATE	SITE	UNIT	POWER	SIGNAL	CAUSE	COMPLI- <sup>(3)</sup> CATIONS	YTD ABOVE 15%	YTD BELOW 15%	YTD TOTAL
11/10/92	WOLF CREEK	1	100	A	PERSONNEL	NO	3	0	3
11/12/92	SUSQUEHANNA	1	100	A	EQUIPMENT	NO	1	0	1
11/13/92	DUANE ARNOLD	1	100	A	EQUIPMENT	NO	2	0	2
11/13/92	PALO VERDE	2	100	A	PERSONNEL	NO	4	0	4
11/14/92	BRAIDWOOD	2	100	A	EQUIPMENT	NO	5	1	6



## II. COMPARISON OF WEEKLY STATISTICS WITH INDUSTRY AVERAGES

### SCRAMS FOR WEEK ENDING 11/08/92

SCRAM CAUSE	NUMBER OF SCRAMS	1992 WEEKLY AVERAGE (YTD)	1991 WEEKLY AVERAGE	1990 WEEKLY AVERAGE	1989 WEEKLY AVERAGE	1988 WEEKLY AVERAGE
POWER GREATER THAN 15%						
EQUIPMENT RELATED	2	2.6	2.9	3.4	3.1	3.0
PERSONNEL RELATED (2)	0	0.7	0.6	0.5	1.0	1.0
OTHER (4)	0	0.0	0.0	0.0	0.1	0.4
Subtotal	2	3.3	3.5	3.9	4.2	4.4
POWER LESS THAN 15%						
EQUIPMENT RELATED	0	0.5	0.3	0.4	0.3	0.6
PERSONNEL RELATED (2)	0	0.3	0.2	0.1	0.3	0.4
OTHER (4)	0	0.0	0.0	0.0	0.0	0.2
Subtotal	0	0.8	0.5	0.5	0.6	1.2
TOTAL	2	4.1	4.0	4.4	4.8	5.6

### MANUAL VS AUTO SCRAMS

TYPE	NO. OF SCRAMS	1992 WEEKLY AVERAGE (YTD)	1991 WEEKLY AVERAGE	1990 WEEKLY AVERAGE	1989 WEEKLY AVERAGE	1988 WEEKLY AVERAGE
MANUAL SCRAMS	0	1.0	0.7	1.2	0.9	1.1
AUTOMATIC SCRAMS	2	3.1	3.3	3.2	3.9	4.5

# II. COMPARISON OF WEEKLY STATISTICS WITH INDUSTRY AVERAGES

SCRAMS FOR WEEK ENDING  
11/15/92

SCRAM CAUSE	NUMBER OF SCRAMS	1992 WEEKLY AVERAGE (YTD)	1991 WEEKLY AVERAGE	1990 WEEKLY AVERAGE	1989 WEEKLY AVERAGE	1988 WEEKLY AVERAGE
POWER GREATER THAN 15%						
EQUIPMENT RELATED	3	2.6	2.9	3.4	3.1	3.0
PERSONNEL RELATED (2)	2	0.8	0.6	0.5	1.0	1.0
OTHER (4)	0		0.0	0.0	0.1	0.4
Subtotal	5	3.4	3.5	3.9	4.2	4.4
POWER LESS THAN 15%						
EQUIPMENT RELATED	0	0.5	0.3	0.4	0.3	0.6
PERSONNEL RELATED (2)	0	0.3	0.2	0.1	0.3	0.4
OTHER (4)	0	0.0	0.0	0.0	0.0	0.2
Subtotal	0	0.8	0.5	0.5	0.6	1.2
TOTAL	5	4.2	4.0	4.4	4.8	5.6

## MANUAL VS AUTO SCRAMS

TYPE	NO. OF SCRAMS	1992 WEEKLY AVERAGE (YTD)	1991 WEEKLY AVERAGE	1990 WEEKLY AVERAGE	1989 WEEKLY AVERAGE	1988 WEEKLY AVERAGE
MANUAL SCRAMS	0	1.0	0.7	1.2	0.9	1.1
AUTOMATIC SCRAMS	5	3.2	3.3	3.2	3.9	4.5

## 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 111 REACTORS HOLDING AN OPERATING LICENSE.
2. PERSONNEL RELATED PROBLEMS INCLUDE HUMAN ERROR, PROCEDURAL DEFICIENCIES, AND MANUAL STEAM GENERATOR LEVEL CONTROL PROBLEMS.
3. COMPLICATIONS: RECOVERY COMPLICATED BY EQUIPMENT FAILURES OR PERSONNEL ERRORS UNRELATED TO CAUSE OF SCRAM.
4. "OTHER" INCLUDES AUTOMATIC SCRAMS ATTRIBUTED TO ENVIRONMENTAL CAUSES (LIGHTNING), SYSTEM DESIGN, OR UNKNOWN CAUSE.

## OEAB SCRAM DATA

Manual and Automatic Scrams for 1987 -----	435
Manual and Automatic Scrams for 1988 -----	291
Manual and Automatic Scrams for 1989 -----	252
Manual and Automatic Scrams for 1990 -----	226
Manual and Automatic Scrams for 1991 -----	206
Manual and Automatic Scrams for 1992 --(YTD 11/15/92)--	190