

APR 29 1992

MEMORANDUM FOR: Charles E. Rossi, Director  
 Division of Operational Events Assessment

FROM: Alfred E. Chaffee, Chief  
 Events Assessment Branch  
 Division of Operational Events Assessment

SUBJECT: OPERATING REACTORS EVENTS MEETING  
 APRIL 22, 1992 - MEETING 92-05

On April 22, 1992, we conducted an Operating Reactors Events meeting (92-05) to inform senior managers from the ACRS, EDO, OE, AEOD, NRR, and regional offices of selected events that occurred since our last briefing on April 8, 1992. Enclosure 1 lists the attendees. Enclosure 2 presents the significant elements of the discussed events.

Enclosure 3 contains reactor scram statistics for the weeks ending and 04/12/92 and 04/19/92. One significant event was identified for input into the NRC performance indicator program.

Original signed by

Alfred E. Chaffee, Chief  
 Events Assessment Branch  
 Division of Operational  
 Events Assessment

Enclosures: As stated

cc w/enclosures:  
 See next page

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 EXPERIENCE

cc:

T. Murley, NRR (12G18)  
F. Miraglia, NRR (12G18)  
W. Russell, NRR (12G18)  
F. Gillespie, NRR (12G18)  
J. Partlow, NRR (12G18)  
S. Varga, NRR (14E4)  
J. Calvo, NRR (14A4)  
G. Lainas, NRR (14H3)  
B. Boger, NRR (14A2)  
J. Zwolinski, NRR (13H24)  
M. Virgilio, NRR (13E4)  
D. Crutchfield, NRR (11H21)  
W. Travers, NRR (11B19)  
J. Richardson, NRR (7D26)  
A. Thadani, NRR (8E2)  
B. Grimes, NRR (9A2)  
F. Congel, NRR (10E2)  
J. Roe, NRR (10H5)  
M. Pohida, NRR (10E4)  
T. Martin, RI  
W. Kane, RI  
C. Hehl, RI  
S. Ebneter, RII  
L. Reyes, RII  
B. Davis, RIII  
E. Greenman, RIII  
R.D. Martin, RIV  
B. Beach, RIV  
J.B. Martin, RV  
R. Zimmerman, RV  
P. Boehnert, ACRS (P-315)  
E. Jordan, AEOD (MN-3701)  
T. Novak, AEOD (MN-3701)  
L. Spessard, AECD (MN-3701)  
E. Weiss, AEOD (MN-3206)  
S. Rubin, AEOD (MN-4106)  
M. Harper, AEOD (MN-9112)  
W. Bateman, EDO (17G21)  
R. Newlin, GPA (2G5)  
E. Beckjord, RES (NLS-007)  
A. Bates, SECY (16G15)  
G. Rammling, OCM (16H3)

T. Le (PDII-1)  
E. Adensam (PDII-1)  
B. Siegel (PDIII-2)  
R. Barrett (PDIII-2)

bcc: INPO

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

ENCLOSURE 1

LIST OF ATTENDEES

OPERATING REACTORS EVENTS FULL BRIEFING (92-0.)

APRIL 22, 1992

<u>NAME</u>	<u>OFFICE</u>	<u>NAME</u>	<u>OFFICE</u>
T. MURLEY	NRR	R. ELLIOTT	NRR
C. ROSSI	NRR	T. LE	NRR
A. CHAFFEE	NRR	S. ROSENBERG	NRR
D. FISCHER	NRR	D. JENG	NRR
R. DENNIG	NRR	R. HERMANN	EDO
T. KOSHY	NRR	D. ROBERTS	OE
K. BAUMANN	NRR	E. ADENSAM	NRR
R. SCHAAF	NRR	H. ALDERMAN	ACRS
R. WOODRUFF	NRR	J. MA	NRR
J. CARTER	NRR	M. MARKLEY	NRR
J. PARTLOW	NRR	J. ROSENTHAL	AEOD

OPERATING REACTORS EVENTS BRIEFING 92-05

EVENTS ASSESSMENT BRANCH

LOCATION: 8 B11, WHITE FLINT

WEDNESDAY, APRIL 22, 1992, 11:00 A.M.

BRUNSWICK, UNITS 1 AND 2

CONCERN ABOUT SEISMICALLY  
DESIGNED WALLS

LASALLE, UNIT 2

BYPASSING ISOLATION OF THE  
REACTOR WATER CLEANUP SYSTEM

BRUNSWICK, UNITS 1 AND 2  
CONCERN ABOUT SEISMICALLY DESIGNED WALLS  
APRIL 21, 1992

PROBLEM

DEFICIENCY IN SUPPORT BOLTING FOR SEISMICALLY DESIGNED WALLS.

CAUSE

INDETERMINATE. APPARENT INADEQUATE CONSTRUCTION OVERSIGHT AND QUALITY CONTROL.

SAFETY SIGNIFICANCE

SEISMIC EVENT COULD RESULT IN COMMON MODE FAILURE OF MANY SEISMICALLY DESIGNED WALLS.

DISCUSSION

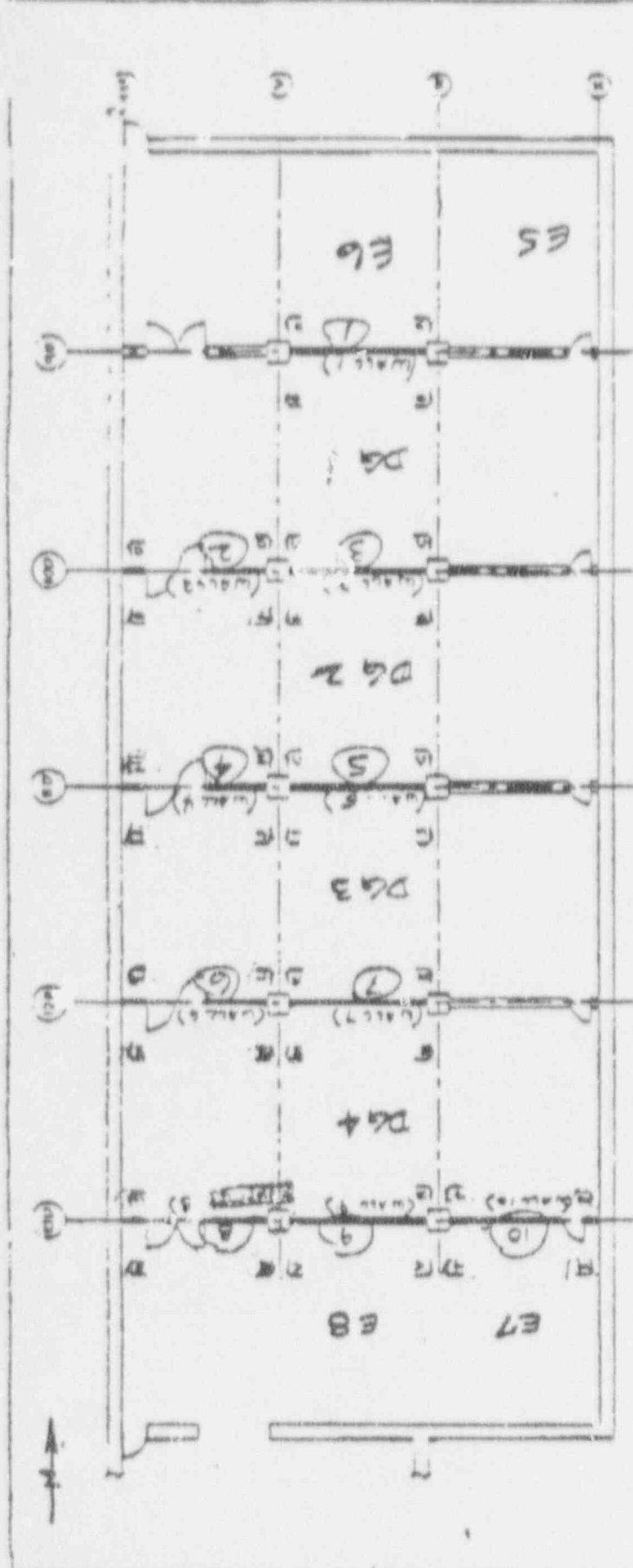
- O BULLETIN 80-11 ADDRESSED MASONRY WALLS.
  - LICENSEE RESPONSE FOUND ACCEPTABLE
- O LICENSEE ENGINEER IDENTIFIED PROBLEM IN 1987.
  - NOT IMPLEMENTED
- O LICENSEE COMPLETED ANALYSIS IN 1990.
- O NRC SPECIAL INSPECTION TEAM ON SITE 3/30-4/10/92.
  - DIESEL GENERATOR BUILDING WALL ANCHORING NOT PROPERLY BOLTED
  - MISSING BOLTS AND "DECEIT" BOLTS PRESENT
- O LICENSEE INSPECTION OF ANCHORS ON OTHER WALL SHOWED ADDITIONAL PROBLEMS.
- O LICENSEE SHUT DOWN BOTH UNITS FROM POWER OPERATION.

FOLLOWUP

- O LICENSEE TO COMPLETELY ASSESS SIMILARLY CONSTRUCTED WALLS.
- O REGION AND NRR MONITORING LICENSEE'S ACTIVITIES.

CONTACT: T. LE, NRR  
REFERENCE: 10 CFR 50.72 #23291

AIT: NO  
SIGEVENT: TBD



DATE	1-1-1979	SHEET	1 OF 1
PROJECT NO.	92-001-C-1000	SCALE	AS SHOWN
<b>CP&amp;I</b> GEOTECHNICAL ENGINEERING 1000 W. 10TH ST. SUITE 100 DENVER, CO 80202			
PROJECT: 078-561 GENERATOR DUCT ELEV. 23'-0" HAP. SHEET WALLS			

**KEY PLAN**

GENERAL OBSERVATION: DUCT  
 PARTIAL PLAN @ ELEV. 23'-0"  
 NOTE: SECTION 0-0, 0-0 AND 0-0 NOT  
 SHOWN FOR CLARITY

**NOTES:**

1. LOCATION AND HOLDING SHOWN ON FOLLOWING DRAWINGS FOR DETAIL 3 AND DETAIL LOCATIONS. HOWEVER THEY CAN BE MOVED IF BRACKET-SPACES STILL OCCUR. WITHIN THE DETAIL 3 CAN BE INSTALLED WITHIN 18" FROM A MEMBER OR 1'-0" AND A MAXIMUM OF 3'-0" CENTER TO CENTER OF BRACKETS AND BRACKETS.
2. BRACKETS WHICH ARE HAVING OR LONGER IN CONCRETE AND ALSO SHALL SUPPORTED AT THIS LOCATION FOR DETAIL 4 ONLY.

CALC 18: 0002-000-07808

USE THE SYMBOL



LASALLE, UNIT 2  
BYPASSING ISOLATION OF THE REACTOR  
WATER CLEANUP SYSTEM  
APRIL 20, 1992

PROBLEM

THE REACTOR OPERATOR BYPASSED AUTOMATIC ISOLATION OF THE RWCU SYSTEM AFTER AN ALARM WAS RECEIVED AND BEFORE THE ISOLATION VALVES CLOSED.

CAUSE

THE REACTOR OPERATOR WAS PROTECTING THE ISOLATION VALVE MOTORS.

SAFETY SIGNIFICANCE

THE SHIFTS FOREMAN VIOLATED OPERATING POLICY.

DISCUSSION

- O ON 04/02/92 DURING STARTUP, THE MOTORS FOR BOTH ISOLATION VALVES UPSTREAM FROM THE RWCU HEAT EXCHANGER FAILED BECAUSE THE LIMIT SWITCHES THAT LEAD THE TORQUE SWITCHES WERE NOT CORRECTLY SET.
- O THE LIMIT AND TORQUE SWITCHES ARE DIFFICULT TO SET BECAUSE OF THE EFFECT OF TEMPERATURE ON THE VALVES.
- O THE MOTORS WERE REPLACED AND THE SWITCHES WERE RESET.
- O ON 4/20/92 DURING STARTUP, THE RWCU WAS BEING SHUTDOWN IN CONJUNCTION WITH VALVE TESTING.
- O THE LICENSEE BELIEVES THAT CLOSING THE RWCU PUMP DISCHARGE VALVE WHILE SHUTTING DOWN THE RWCU PUMP CAUSED A PRESSURE SPIKE THAT LIFTED THE RELIEF VALVE ON THE HEAT EXCHANGER.

CONTACT: R. WOODRUFF, NRR  
REFERENCES: 50.72 #23160 AND #23285, AND  
MORNING REPORT DATED 04/04/92

AIT: NO  
SIGEVENT: TBD

- 0 THE SHIFT FOREMAN ASSUMED THAT THE HIGH DIFFERENTIAL FLOW SIGNAL WAS SPURIOUS, AS IS OFTEN THE CASE, AND BYPASSED THE ISOLATION SIGNAL.
- 0 THE SHIFT FOREMAN ALSO DISPATCHED AN OPERATOR TO CHECK THE RWCU SYSTEM.
- 0 BECAUSE LEVEL WAS RISING IN THE REACTOR BUILDING EQUIPMENT DRAIN TANK AND THE FLOW OF WATER COULD BE HEARD, THE ISOLATION BYPASS WAS UNBYPASSED.
- 0 APPROXIMATELY 2 MINUTES AFTER THE ISOLATION VALVES WOULD HAVE CLOSED IN RESPONSE TO THE AUTOMATIC ISOLATION SIGNAL, THE VALVES DID CLOSE.
- 0 THE LEAK RATE WAS 96 GPM.

#### FOLLOWUP

- 0 AEOD IS SENDING 3 PEOPLE TO THE SITE TO OBTAIN INFORMATION FOR THEIR CREW INTERACTION STUDY.
- 0 THE REGION WILL PERFORM A SPECIAL INSPECTION.
- 0 SENIOR REGIONAL AND CECO MANAGEMENT HAVE BEEN DISCUSSING APPROPRIATE CORRECTIVE ACTIONS.
- 0 LASALLE MANAGEMENT HAS FORMED A SPECIAL INVESTIGATIVE TEAM.



REACTOR SCRAM SUMMARY  
 WEEK ENDING 04/12/92

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

DATE	SITE	INIT POWER	SIGNAL	CAUSE	COMPLI- CATIONS	<sup>(3)</sup> YTD		YTD TOTAL
						ABOVE 15%	BELOW 15%	
04/07/92	PEACH BOTTOM	2	100 M	EQUIPMENT	NO	1	0	1
04/08/92	FERMI	2	0 M	EQUIPMENT	NO	1	1	2

II. COMPARISON OF WEEKLY STATISTICS WITH INDUSTRY AVERAGES

SCRAMS FOR WEEK ENDING  
04/12/92

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	1	2.4	2.7	3.4	3.1	3.0
PERSONNEL RELATED (2)	0	0.8*	0.6	0.5	1.0	1.0
OTHER (4)	0	0.0	0.0	0.0	0.1	0.4
Subtotal	1	3.2*	3.5	3.9	4.2	4.4
POWER LESS THAN 15%						
EQUIPMENT RELATED	1	0.4	0.3	0.4	0.3	0.6
PERSONNEL RELATED (2)	0	0.1	0.2	0.1	0.3	0.4
OTHER (4)	0	0.0	0.5	0.0	0.0	0.2
Subtotal	1	0.5	0.5	0.5	0.6	1.2
TOTAL	2	3.7*	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	2	1.0	0.7	1.2	0.9	1.1
AUTOMATIC SCRAMS	0	2.7	3.3	3.2	3.9	4.5

\*Corrected to accommodate rounding-off

REACTOR SCRAM SUMMARY  
 WEEK ENDING 04/19/92

1. PLANT SPECIFIC DATA (1)

DATE	SITE	UNIT	POWER	SIGNAL	CAUSE	COMPLI- DATE	(3) YTD		YTD TOTAL
							ABOVE	BELOW	
							15%	15%	
04/17/92	INDIAN POINT	2	25	A	PERSONNEL	NO	2	0	2
04/15/92	LASALLE	2	18	M	EQUIPMENT	NO	1	0	1
04/16/92	NINE MILE POINT	1	98	A	EQUIPMENT	NO	2	0	2

II. COMPARISON OF WEEKLY STATISTICS WITH INDUSTRY AVERAGES

SCRAMS FOR WEEK ENDING  
04/19/92

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	2.4	2.9	3.4	3.1	3.0
PERSONNEL RELATED (2)	1	0.8	0.6	0.5	1.0	1.0
OTHER (4)	0	0.0	0.0	0.0	0.1	0.4
Subtotal	3	3.2	3.5	3.9	4.2	4.4
POWER LESS THAN 15%						
EQUIPMENT RELATED	0	0.4	0.3	0.4	0.3	0.6
PERSONNEL RELATED (2)	0	0.1	0.2	0.1	0.3	0.4
OTHER (4)	0	0.0	0.5	0.0	0.0	0.2
Subtotal	0	0.5	0.5	0.5	0.6	1.2
TOTAL	3	3.7	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	1	1.0	0.7	1.2	0.9	1.1
AUTOMATIC SCRAMS	2	2.7	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 04/19/92)--	057

OPERATING REACTOR PLANTS SIGNIFICANT EVENTS

QUERY> Event Type SIG & Event Date >= 02/25/92 & Event Date <= 02/25/92 & Event Type = "SIG"  
 No Sort Specified

<u>PLANT &amp; UNIT</u>	<u>DATE OF EVENT</u>	<u>SO. TZ NUMBER</u>	<u>DESCRIPTION OF EVENT</u>	<u>SIGNIFICANCE</u>	<u>OR BRIEFING</u>	<u>PRESENTER</u>	<u>CLOSEOUT RECORD</u>
WASHINGTON NUCLEAR PROJECT 2	02/25/92	22874	BOTH TRAINS OF CONTAINMENT ATMOSPHERE CONTROL (CAC) SYSTEM INOPERABLE DUE TO DRAIN LINE FOR THE SCRUBBER, WHICH IS PART OF THE HYDROGEN RECOMBINER SUBSYSTEM, WAS CONNECTED TO RHR DISCHARGE LINE AND CAUSING DRAINAGE PROBLEMS.	Containment	NONE	GREENE T.	INFORMAL