

APR 18 1988

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
 April 12, 1988 - MEETING 88-15

On April 12, 1988 an Operating Reactors Events meeting (88-15) was held to brief senior managers from NRR, RES, AEOD and Regional Offices on events which occurred since our last meeting on April 5, 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. Enclosure 3 presents a report-to-date of long-term followup assignments and a summary of reactor scrams. One significant event was identified for input to NRC's performance indicator program. No events were suggested for long-term followup.

Original Signed by
 Wayne D. Lanning

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

Enclosures:
 As state

cc w/Enr ..:
 See Next Page

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*ID/R-5-1
 OPERATING
 EXPERIENCE*

OFC	:EAB:NRR	:C:EAB:NRR	:	:	:	:	:
NAME	:MLReardon	:WLB	:	:B804210394	:B80415	:	:
			:	:PDR	:ORC	:NRRB	:PDR
DATE	:04/14/88	:04/14/88	:	:	:	:	:

cc:

T. Murley
F. Miraglia
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
E. Greenman, 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. Guttman
A. Thadani
S. Rubin

J. Sniezek
J. Forsyth, INPO
M. Virgilic
T. Quay
K. Heitner
J. Calvo



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

APR 15 1988

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Events Assessment Branch
Division of Operational Events Assessment
Office of Nuclear Reactor Regulation

Enclosures:
As stated

cc w/Enclo.:
See Next Page

LIST OF ATTENDEES

OPERATING REACTORS EVENTS BRIEFING (88-15)

April 12, 1988

<u>NAME</u>	<u>ORGANIZATION</u>	<u>NAME</u>	<u>ORGANIZATION</u>
W. Lanning	NRR/DOEA	J. Roe	NRR/DLPO
M.L. Reardon	NRR/DOEA	R. Karsch	NRR/DOEA
T. Murley	NRR	T. Quay	NRR/DRSP
D. Crutchfield	NRR/DRSP	V. Benaroya	AEOD/DSP
C.J. Haughney	NRR/DRIS	L. Rubenstein	NRR/DRSP
T. Martin	OEDC	J. Zwolinski	NRR/DEST
R. Lobel	NRR/DOEA	G. Holahan	NRR/DRSP
M. Callahan	GPA/CA	S. Newberry	NRR/DEST
J. Gurtmann	SECY	R. Emch	NRR/DOEA
J. Scarborough	OCM/KR	E. Butcher	NRR/DOEA
C.S. Henson	NRR/PREB	T.P. Gwynn	OCM/LZ
B. Watson	RTI	C. Ader	OCM/TP
E. Branagan	NRR/PPPB	G. Klingler	NRR/PMAS
R. Woodruff	NRR/DOEA	T. Dunning	NRR/DOEA
T. Elsasser	OCM/KC	B. Boger	NRR/ADRI
C. Miller	OCM/FB	R. Scholl	NRR/DOEA
P. Baranovsky	NRR/DOEA		

OPERATING REACTORS EVENTS BRIEFING 88-15

LOCATION: 12-B-11 WHITE FLINT

TUESDAY, APRIL 12, 1988, 11:00 A.M.

THIS INFORMATION MAY ALSO BE OBTAINED BY DIALING EXTENSION 21449.

FT. ST VRAIN

RCS LEAKAGE

FERMI 2

RECENT PROBLEMS

GENERIC ISSUE

GENERIC LETTER 87-09 - ALTERNATIVES
TO STANDARD TECH SPEC REQUIREMENTS
APPLICABLE TO LIMITING CONDITIONS
FOR OPERATION & SURVEILLANCE
REQUIREMENTS

FORT ST. VRAIN

RCS LEAKAGE

APRIL 7, 1988

PROBLEM

- SMALL UNPLANNED RELEASE OF RADIOACTIVITY WHILE THE REACTOR WAS AT 72% POWER ON 4/7/88.

CAUSE

- A NEOPRENE EXPANSION JOINT IN ONE OF THE CIRCULATING WATER LINES FAILED FLOODING BOTH PUMP MOTORS.

SIGNIFICANCE

- CRACKS IN CORE SUPPORT FLOOR LINER.
- WITH INCREASING RCS PRESSURE AND TEMPERATURE, A PATH EXISTS FOR VENTING RADIOACTIVITY FROM THE PCRV TO THE ENVIRONMENT.

DISCUSSION

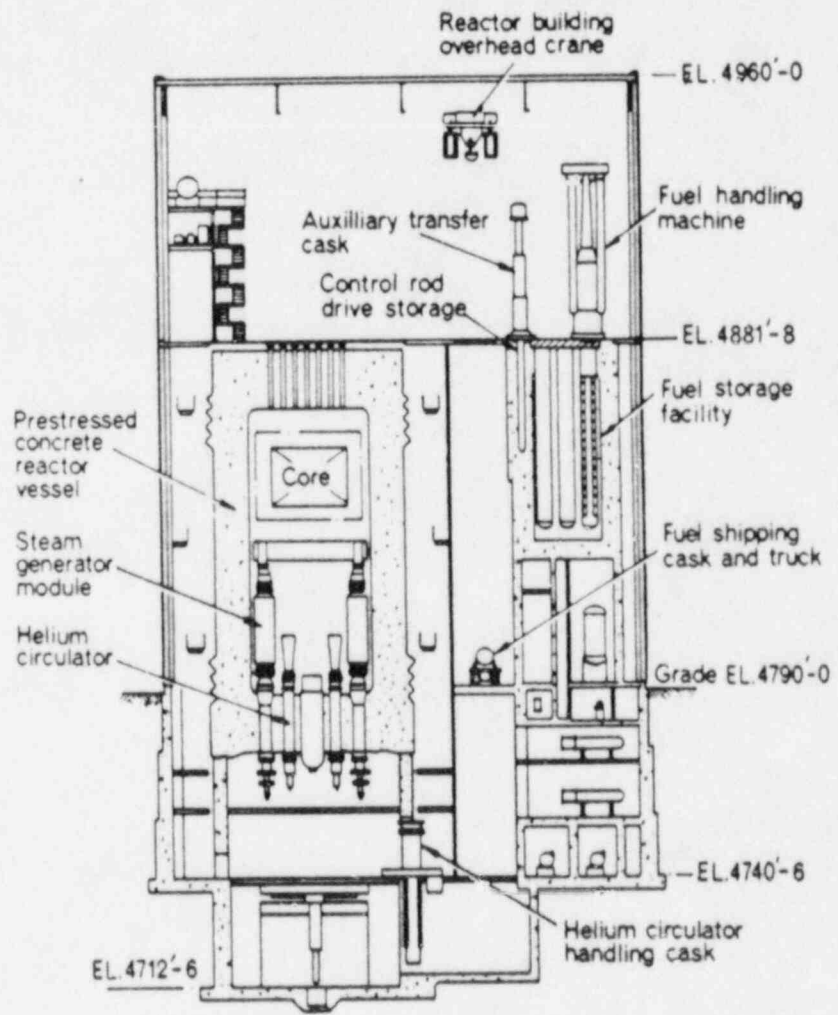
- BOTH CIRCULATING PUMPS AND MOTORS ARE IN AN OUTDOOR PIT.
- THE CIRCULATING LINES ARE APPROXIMATELY 40 INCHES IN DIAMETER.
- A 4 FT CIRCUMFERENTIAL RIP DEVELOPED IN ONE OF THE EXPANSION JOINTS CAUSING LOSS OF THE COOLING TOWER AND MAIN CONDENSER.
- THE UNIT COOLED DOWN ON STEAM RELIEF VALVES AND DHR.
- THE CONCRETE CORE SUPPORT FLOOR IS SHEATHED (LINER) AND COOLED.
- COOLING SYSTEM LEAKS REQUIRED INSTALLATION OF A VENT SYSTEM WHICH VENTS TO THE RADIOACTIVE WASTE GAS SYSTEM.
- LINER LEAKS RESULT IN RADIOACTIVITY BEING TRANSFERRED FROM THE PCRV TO THE ENVIRONMENT VIA THE CORE SUPPORT FLOOR AND ITS VENT SYSTEM.

FOLLOWUP

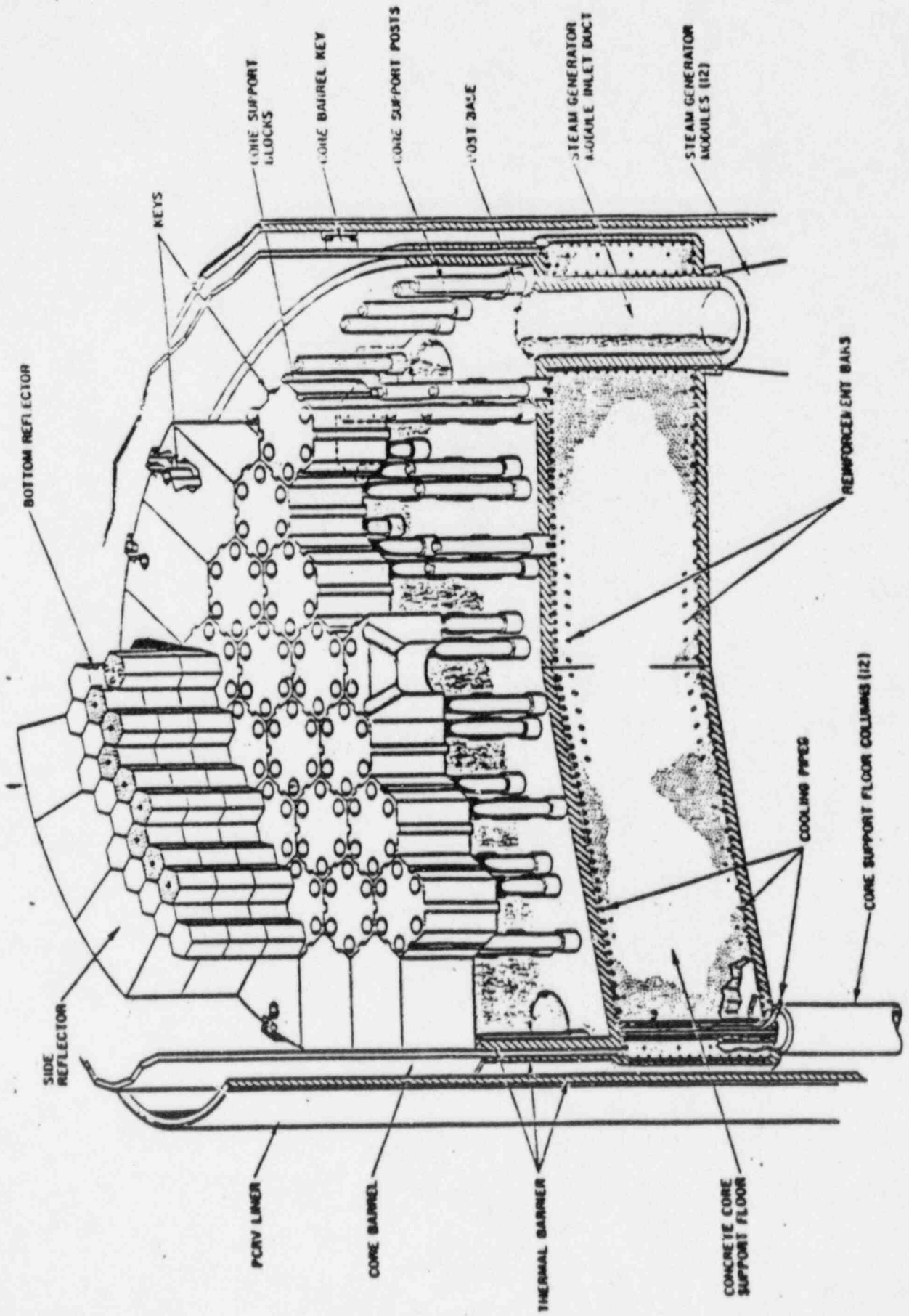
- THE LICENSEE IS PLANNING MODIFICATIONS TO REDUCE THE LIKELIHOOD OF UNPLANNED RELEASES OF RADIOACTIVITY.
- REGION IV HAS THE LEAD.

CONTACT: ROGER WOODRUFF

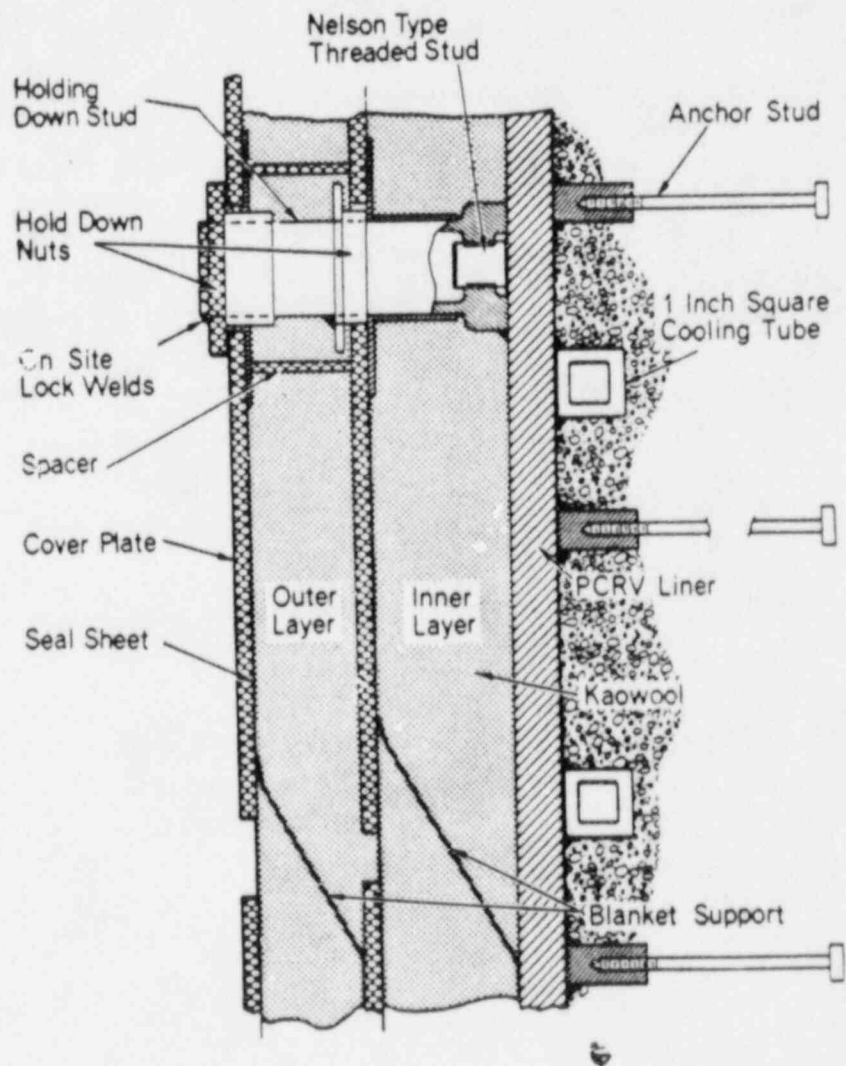
REFERENCE: 50.72 #11965



FORT ST VRAIN — PCR-V

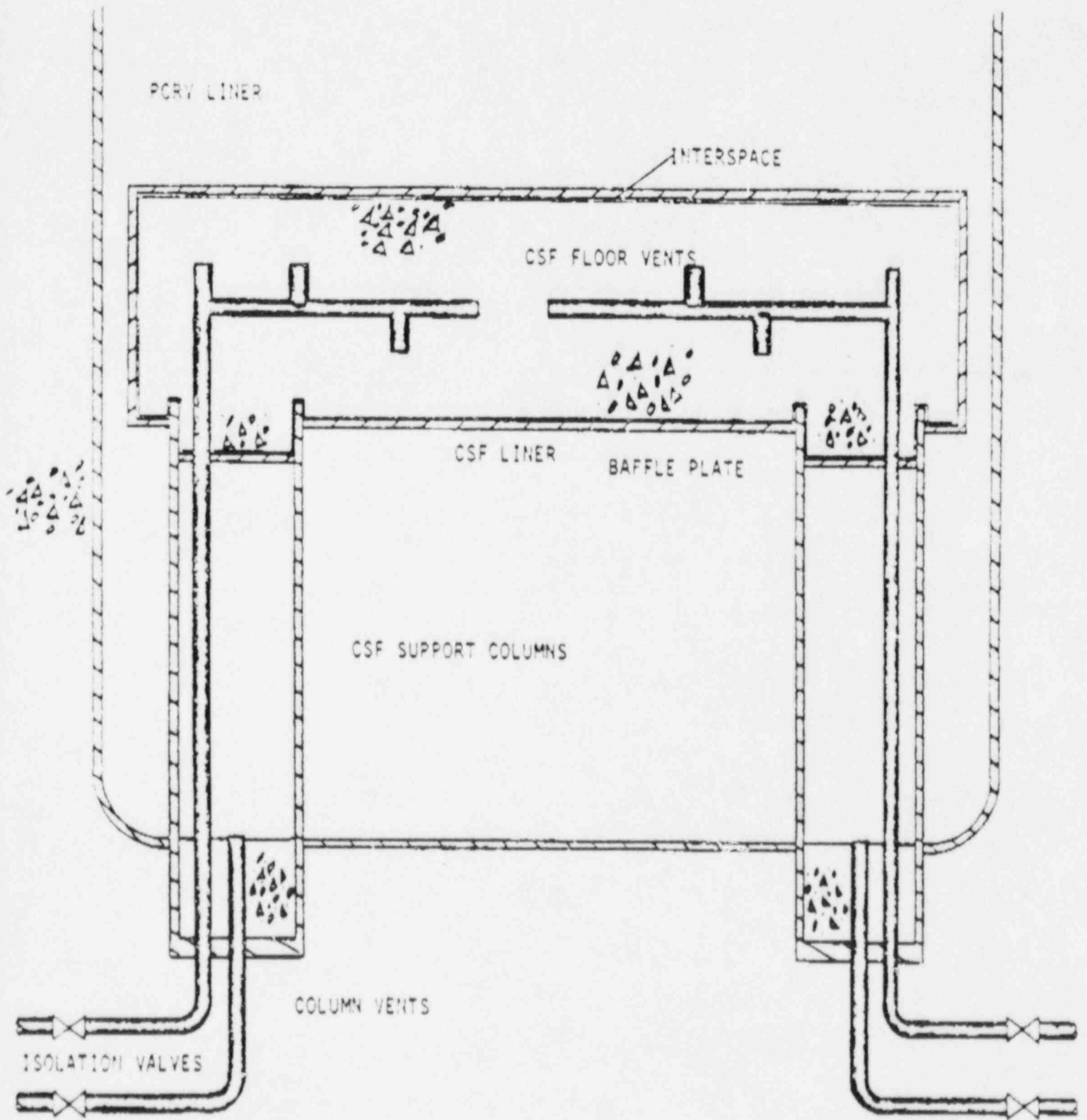


FORT ST VRAIN - CORE SUPPORT FLOOR

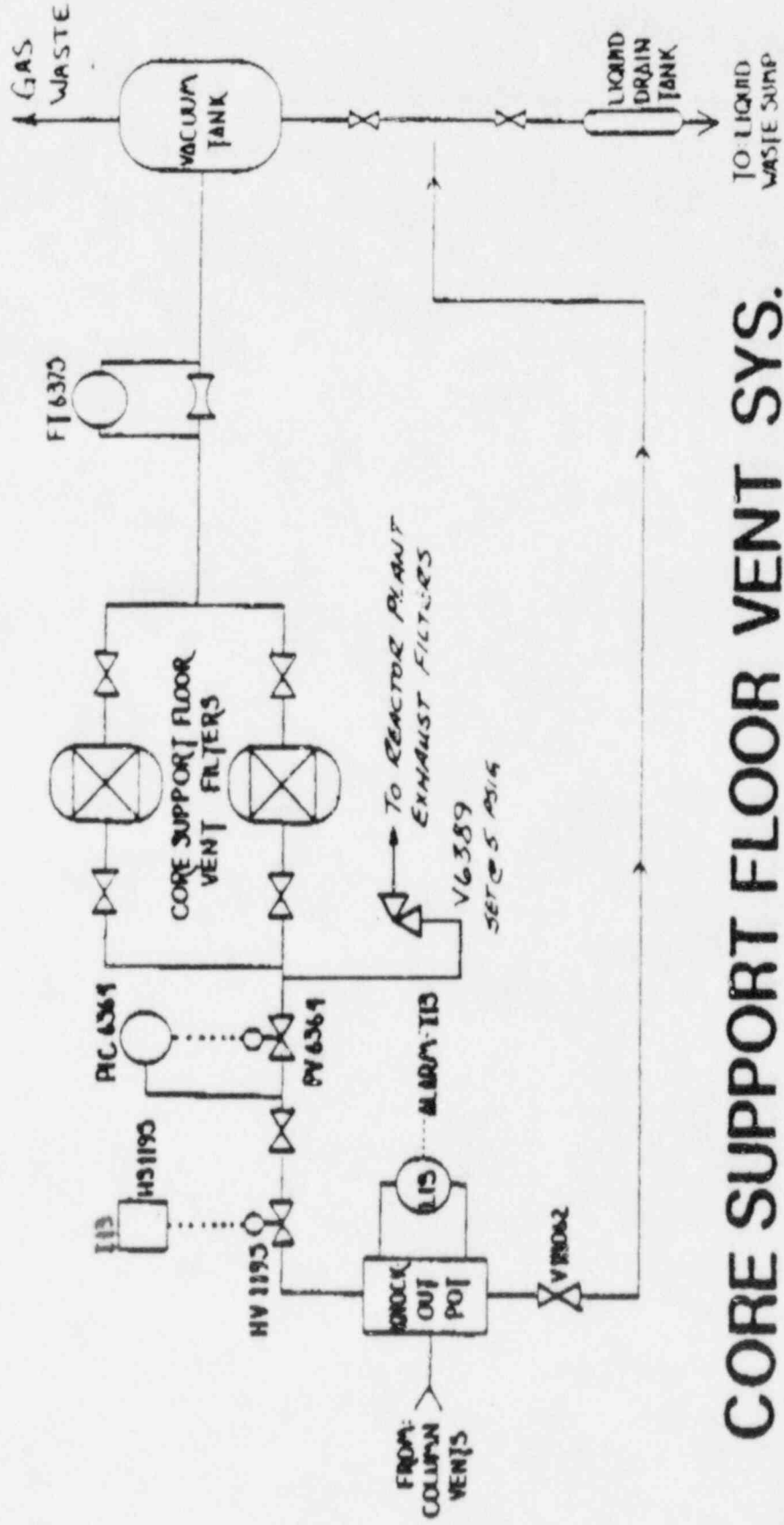


FORT ST VRAIN - THERMAL BARRIER & LINER COOLING TUBES

CORE SUPPORT FLOOR/COLUMN VENT SYSTEM



FORT ST VRAIN



CORE SUPPORT FLOOR VENT SYS.

FERMI UNIT 2
RECENT PROBLEMS
APRIL 9, 1988

PROBLEM

OPERATOR ACTIVITIES RESULTED IN THE FLOW OF BORATED WATER INTO THE REACTOR VESSEL. LOSS OF SHUTDOWN COOLING, RHR PUMP DEAD HEADED.

CAUSE

THE CAUSE OF THE BORATED WATER PROBLEM WAS IMPROPER CONTROL ROOM INSTRUCTIONS FOR A REQUEST TO DEVIATE FROM APPROVED SURVEILLANCE PROCEDURES. THE CAUSE OF THE RHR PUMP PROBLEM IS STILL UNDER INVESTIGATION.

SIGNIFICANCE

LICENSEE HAS IN PLACE A "CONTROL OF LICENSE ACTIVITIES" PROGRAM THAT RESULTED FROM A 1987 CHANGE IN OPERATING MODE EVENT CAUSED BY IMPROPER OPERATOR ACTIVITIES.

DISCUSSION

BORATED WATER PROBLEM:

- PLANT IN COLD SHUTDOWN.
- STANDBY LIQUID CONTROL SYSTEM SURVEILLANCE WAS BEING PERFORMED WHICH REQUIRES A SQUIB VALVE TO BE FIRED WITH THE DEMINERALIZED WATER TANK ALIGNED FOR INJECTION.
- THE OPERATOR DECIDED TO CONTINUE THE SURVEILLANCE AFTER THE SQUIB FIRING WHEN A MAINTENANCE SCHEDULING PROBLEM CAUSED A DELAY IN REPLACING THE SQUIB VALVE.
- PERMISSION HAD NOT BEEN RECEIVED FROM THE CONTROL ROOM TO REALIGN TO THE SBLC TANK.
- BORATED WATER PASSED THROUGH THE POSITIVE DISPLACEMENT PUMP INTO THE REACTOR VESSEL DUE TO THE DRIVING HEAD FROM THE ELEVATED TANK.
- APPROXIMATELY 130 GALLONS WENT ONTO THE VESSEL. NO REASON HAS BEEN GIVEN FOR WHAT ACTION(S) TERMINATED THE EVENT.

CONTACT: CARL SCHULTEN
REFERENCE: 50.72 #11980

RHR SHUTDOWN COOLING PROBLEM:

- ° PLANT WAS IN SHUTDOWN COOLING (COLD SHUTDOWN) WITH ONE OF TWO LOOPS OUT-OF-SERVICE FOR MAINTENANCE
- ° THE MINIMUM FLOW VALVE OF THE OPERABLE S/D COOLING LOOP WAS ISOLATED PER A LICENSEE 50.59 EVALUATION
- ° THE MIN. FLOW VALVE HAD FAILED ITS LEAK RATE TEST.
- ° 50.59 EVALUATION REASONED THE RHR PUMP WOULD TRIP IF THE SUCTION VALVE WERE ISOLATED ON THE RECEIPT OF NORMAL RHR S/D COOLING ISOLATION SIGNALS
- ° THE INJECTION VALVE ISOLATED (BUT NOT THE SUCTION VALVE) WITHOUT TRIPPING THE PUMP.
- ° THE RHR PUMP RAN FOR 30-35 MINUTES WITH THE PUMP INJECTION VALVE ISOLATED
- ° RHR PUMP LIFE MAY BE SIGNIFICANTLY REDUCED.

FOLLOWUP

THE LICENSEE IS SCHEDULED TO MEET WITH REGION III AND DISCUSS THESE EVENTS

GENERIC LETTER 87-09

CHANGES TO SECTIONS 3.0/4.0 OF TECH SPECS

SPEC 3.0.4 - LCO COMPLIANCE FOR MODE CHANGES

REMOVE UNNECESSARY RESTRICTIONS ON MODE CHANGES

SPEC 4.0.3 - MISSED SURVEILLANCE IS DEFINED AS FAILURE TO SATISFY
OPERABILITY REQUIREMENTS OF LCO

REDUCE UNNECESSARY FORCED SHUTDOWNS

SPEC 4.0.4 - SURVEILLANCE COMPLIANCE FOR MODE CHANGES

MINOR CHANGE FOR CONSISTENCY OF REQUIREMENTS

CONTACT: TOM DUNNING

SPECIFICATION 3.0.4

EXISTING REQUIREMENT

- PRECLUDES A CHANGE IN MODES IF LCO IS NOT MET WITHOUT RELIANCE ON ACTION REQUIREMENTS
- NUMEROUS EXCEPTIONS TO SPEC 3.0.4

ALTERNATIVE REQUIREMENT

- ALLOWS A CHANGE IN MODES IF ACTION REQUIREMENT PERMITS UNLIMITED CONTINUED OPERATION
- PRECLUDES A CHANGE IN MODES IF ACTION REQUIREMENTS ENDS WITH A FORCED SHUTDOWN
- REMOVE EXCEPTIONS TO SPEC 3.0.4 IN INDIVIDUAL SPECIFICATIONS

SPECIFICATION 4.0.3

EXISTING REQUIREMENT

- FAILURE TO PERFORM A SURVEILLANCE WITHIN ITS SPECIFIED TIME INTERVAL IS DEFINED AS A FAILURE TO MEET THE OPERABILITY REQUIREMENTS OF AN LCO

ALTERNATIVE REQUIREMENT

- ALLOW ACTIONS TO BE DELAYED UP TO 24 HOURS TO COMPLETE A SURVEILLANCE WHEN ALLOWED OUTAGE TIME LESS THAN 24 HOURS (INCLUDES NO ALLOWED OUTAGE TIME CASE, I.E., IMMEDIATE SHUTDOWN)
- CLARIFIED THAT THE SPECIFIED TIME INTERVAL IS THE ALLOWED SURVEILLANCE INTERVAL PER SPEC 4.0.2

- CLARIFIED THAT THE TIME LIMITS OF ACTION REQUIREMENTS ARE APPLICABLE WHEN IT IS IDENTIFIED THAT A SURVEILLANCE HAS NOT BEEN PERFORMED WITHIN THE ALLOWED SURVEILLANCE INTERVAL

SPECIFICATION 4.0.4

EXISTING REQUIREMENT

- PRECLUDES MODE CHANGE IF SURVEILLANCE HAS NOT BEEN PERFORMED IN SPECIFIED TIME INTERVAL

CLARIFICATION

- NOTE THAT LIMITATION SHALL NOT PREVENT PASSAGE THROUGH OR TO MODES TO COMPLY WITH ACTIONS (SIMILAR PROVISION AS IN SPEC 3.0.4 FOR LCOs)

APRIL 12, 1988
STATUS REPORT ON LONGTERM FOLLOWUPS ASSIGNED

ORGANIZATION	EVENT LOG OVERVIEW (LAPSED TIME IN MONTHS)			MONTHLY ACTIVITIES	
	LONGTERM FOLLOWUPS GREATER THAN 6 MO.	LONGTERM FOLLOWUPS 3 TO 6 MO.	LONGTERM FOLLOWUPS LESS THAN 3 MO.	ACTIONS ADDED APRIL 1988	ACTIONS COMPLETED APRIL 1988
AEED	0	0	1	0	0
EAB	0	0	2	0	0
ECEB	0	0	0	1	0
EMTB	0	1	1	0	0
HAFB	0	1	1	0	0
ICSB	1	2	0	0	0
OTSB	0	1	0	0	0
PD2-2	1	0	0	0	0
PD2-3	1	0	0	0	0
PD3-2	0	1	0	0	0
PD5	0	2	0	0	0
RIII	0	0	1	0	0
RVIB	1	4	1	1	0
SELB	1	4	2	0	0
SICB	0	0	1	0	0
SPLB	3	0	0	0	0
SFOX	1	2	1	0	0
TOTAL	9	18	11	2	0

NOTE: An event assigned for longterm followup may have been assigned to multiple branches and a single TAC may have been assigned to similar events at multiple plants, i.e., TAC #67344 was assigned to HFAB and SICB for events at Beaver Valley 2, Calvert Cliffs 2, and Rancho Seco 1.

PERFORMANCE INDICATORS SIGNIFICANT EVENTS

PLANT NAME	EVENT DATE	EVENT DESCRIPTION	QTR SIGNIFICANCE
FORT ST VRAIN	04/07/88	FAILURE OF A CIRCULATING WATER LINE CAUSED LOSS OF THE NORMAL HEAT SINK AND AN UNPLANNED RELEASE OF RADIOACTIVITY FROM THE RCS VIA THE CORE SUPPORT FLOOR AND THE STACK.	O POTENTIAL FOR OR ACTUAL DEGRADATION OF PRIMARY COOLANT PRESSURE BOUNDARY

REACTOR SCRAM SUMMARY
WEEK ENDING 04/03/88

1. PLANT SPECIFIC DATA

DATE	SITE	UNIT	POWER	SIGNAL	CAUSE	COMPLI- CATIONS	YTD	YTD	YTD
							ABOVE	BELOW	TOTAL
							15%	15%	
04/04/88	BEAVER VALLEY	2	100	A	EQUIPMENT	NO	2	0	2
04/04/88	FORT ST. VRAIN	1	72	M	EQUIPMENT	NO	1	0	1
04/07/88	FORT ST. VRAIN	1	72	M	EQUIPMENT	NO	2	0	2
04/07/88	MOISTLE	1	100	A	EQUIPMENT	NO	3	0	3
04/07/88	POINT BEACH	2	100	A	EQUIPMENT	YES	1	0	1
04/09/88	LIMBRICK	1	0	A	UNKNOWN	NO	0	1	1

SUMMARY OF COMPLICATIONS

SITE	UNIT	COMPLICATIONS
POINT BEACH	2	PW HEATERS RELIEF VALVES FAILED TO RESEAT

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.