

AUG 2 1985

MEMORANDUM FOR: Hugh L. Thompson, Jr., Director  
Division of Licensing

FROM: Dennis M. Crutchfield, Assistant Director  
for Safety Assessment, DL

SUBJECT: SUMMARY OF THE OPERATING REACTORS EVENTS  
MEETING ON JULY 23, 1985 - MEETING 85-12

On July 23, 1985, an Operating Reactor Events meeting (85-11) was held to brief the Office Director, the Division Directors and their representatives on events which occurred since our last meeting on July 1, 1985. The list of attendees is included as Enclosure 1.

The events discussed and the significant elements of these events are presented in Enclosure 2. In addition, the assignment of follow-up review responsibility was discussed. The assignments made during this meeting and the status of previous assignments are presented in Enclosure 3.

Completion dates have been assigned for items in Enclosure 3. Note that we have revised Enclosure 3 to facilitate computerized tracking and provide additional details regarding responsibilities and status. Each assignee should review Enclosure 3 with regard to their respective responsibilities and advise ORAB if the target completion date cannot be met. If an assignee has any questions, please contact D. Tarnoff, x29526.

(5)  
Dennis M. Crutchfield, Assistant Director  
for Safety Assessment, DL

Enclosures:  
As Stated

DISTRIBUTION  
Central Files  
NRC PDR  
ORAB Rdg  
ORAB Members

cc w/encl:  
See next page

ORAB:DL  
DTarnoff:c1  
7/20/85

SL:ORAB:DL  
RWessman  
7/20/85

C:ORAB:DL  
GHolahan  
7/20/85

AD:DL  
DCrutchfield  
8/2/85

8509120333 850802  
PDR MISC  
8509120333 PDR

TDLR-5-1  
OPERATING  
EXPERIENCE

ENCLOSURE 1

LIST OF ATTENDEES

OPERATING REACTORS EVENTS BRIEFING (85-11)

JULY 23, 1985

H. Denton, NRR	J. Stolz, NRR/DL/ORAB#4
M. Caruso, NRR	D. Neighbors, NRR/DL/ORB#1
J. Jackson, NRR/DE/EQB	G. Knighton, NRR/DL/LB#3
B. Jones, IE/DEPER/EAB	H. Rood, NRC/DL/LB#3
F. Cherny, MEB/DE/NRR	J. Lyons, NRR/DL
W. Swenson, ORAB/DL/NRR	R. Bernero, NRR/DSI
H. Nicolaras, NRR/DL/ORB#4	T. M. Novak, NRR/DL
K. Mitchell, NRR/DL/ORAB/ORB#5	D. Beckham, NRR/DHFS
J. Stone, IE/VPB	R. Wessman, NRR/DL
G. Bagchi, NRR/DE/EQB	T. Speis, NRR/DST
J. Wilson, LB#3/DL/NRR	F. Schroeder, NRR/DST
T. Alexion, LB#1/DL/NRR	W. Minners, NRR/DST
L. N. Olshan, LB#1/DL/NRR	S. Varga, DL
P. O'Connor, LB#1/DL/NRR	D. Crutchfield, DL
W. J. Collins, IE/DEPER	J. P. Knight, NRR/DE
N. P. Kadambi, NRR/DL/LB#3	G. Lanik, IE/EAB
D. Humenansky, OCM/COMM ZECH	S. Schwartz, IE/DEPER
T. Rotella, NRR/DL/ORB#5	H. Thompson, NRR/DL
B. Sheron, NRR/DSI/RSB	P. Morriette, NRR/DL
B. Bosnak, NRR/DE	D. Tarnoff, NRR/DL
A. W. Dromerick, IE/DEPER/EGCB	K. Seyfrit, AEOD/ROAB
E. Weiss, IE/DEPER/EAB	D. Zukor, AEOD/ROAB
N. Lauben, NRR/DSI/RSB	E. J. Brown, AEOD/ROAB

OPERATING REACTORS EVENTS BRIEFING (85-12)

JULY 23, 1985

INDIAN POINT UNIT 3 - STEAM GENERATOR WELD INDICATIONS

SEABROOK - MAIN STEAM SAFETY VALVE TEST FAILURE

OCONEE UNIT 2 - EXTENDED BLOW DOWN FROM MAIN STEAM  
SAFETY VALVES

WATERFORD UNIT 3 - PLANT TRIPS JULY 4-7, 1985

WATERFORD/WOLFCREEK - STARTUP EXPERIENCE COMPARISON,  
CALLAWAY/CATAWBA/BYRON -

COMBUSTION ENGINEERING LOCA ANALYSIS ERROR

MOJAVE GENERATING - REHEAT LINE FAILURE  
STATION

PALUEL UNITS 1, 2 - IN-CORE INSTRUMENTATION TUBE VIBRATION  
PROBLEMS

OTHER EVENTS OF INTEREST

MILLSTONE UNIT 2 - PRESSURIZER SPRAY VALVE FAILURES

LASALLE UNIT 1 - RHR FLOW SWITCHES IMPROPERLY INSTALLED

FERMI UNIT 2 - INADVERTENT CRITICALITY

TURKEY POINT UNIT 3 - REACTOR TRIP AND AFW VALVE FAILURE

INDIAN POINT 3 - SG WELD INDICATIONS

JUNE 27, 1985 (D. NEIGHBORS, NRR)

- PLANT IN REFUELING STATUS
- T.S. REQUIRES INSPECTIONS OF SG TRANSITION ZONE UPPER GIRTH WELDS
- INDICATIONS FOUND BY UT:
  - SG 31 - 1
  - SG 32 - 2
  - SG 33 - 0
  - SG 34 - 23
- SG-34 HAD WELD REPAIR OF LEAK FOUND IN 1983
- MT ON SG-34 SHOWED CLEAN ON 16 OF 23 INDICATIONS
- REMAINING 7 WELD INDICATIONS ON 34, AND 3 ON 31 AND 32 WERE FOUND TO BE CODE ACCEPTABLE BY VIRTUE OF SIZE OR BY FRACTURE MECHANICS ANALYSIS
- LICENSEE STILL EVALUATING
- NRR HAS LEAD (SINCE 7/15/85)
- NRR & IE DEVELOPING GENERIC CORRESPONDENCE

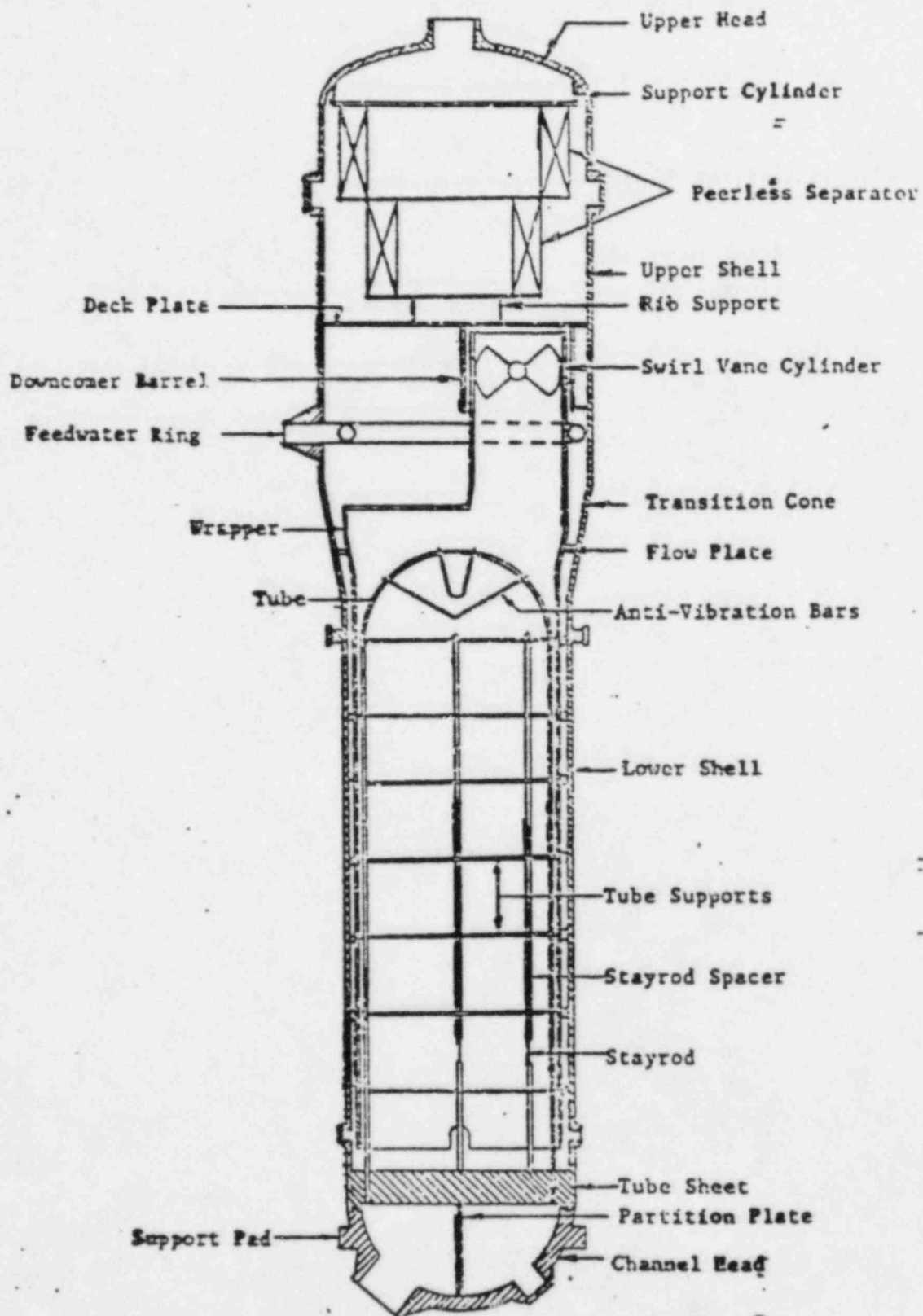


FIGURE 2.3-1  
SERIES 51 STEAM GENERATOR

SEABROOK - CROSBY MAIN STEAM SAFETY VALVE

FLOW DEFICIENCY - DECEMBER 1984

(G, HAMMER, NRR)

- PROBLEM - FULL FLOW TEST RESULTS INDICATE SPRING-ACTUATED MAIN STEAM SAFETY VALVES MAY NOT ACHIEVE RATED FLOW CAPACITY.
- SAFETY SIGNIFICANCE - POSSIBLE INADEQUATE OVERPRESSURE PROTECTION OF SECONDARY SYSTEM IN PWRs USING THESE VALVES
- WYLE LAB TEST RESULTS: INADEQUATE LIFT OF VALVE DISK (ABOUT 50%) WITH THE VENDOR (CROSBY) RECOMMENDED RING SETTING ADJUSTMENTS. TESTS WERE CONDUCTED TO DETERMINE ADEQUACY OF DISCHARGE PIPING.
- CORRECTIVE ACTION - RINGS READJUSTED. OBTAINED FULL LIFT ON SEABROOK VALVES
- GENERIC IMPLICATION - SEABROOK VALVES AND DISCHARGE PIPING SIMILAR TO OTHER PWRs. FULL FLOW TESTS NOT NORMALLY RUN TO ADJUST RINGS.
- NRC FOLLOWUP ACTION: -
  - (1) DEVELOPING IE INFORMATION NOTICE
  - (2) STAFF MAY PURSUE AS A GENERIC ISSUE
  - (3) DISCUSSIONS WITH CROSBY BY REGION 1 AND NRR REGARDING ADEQUACY OF VENDOR GUIDANCE AND SRV RING SETTINGS.

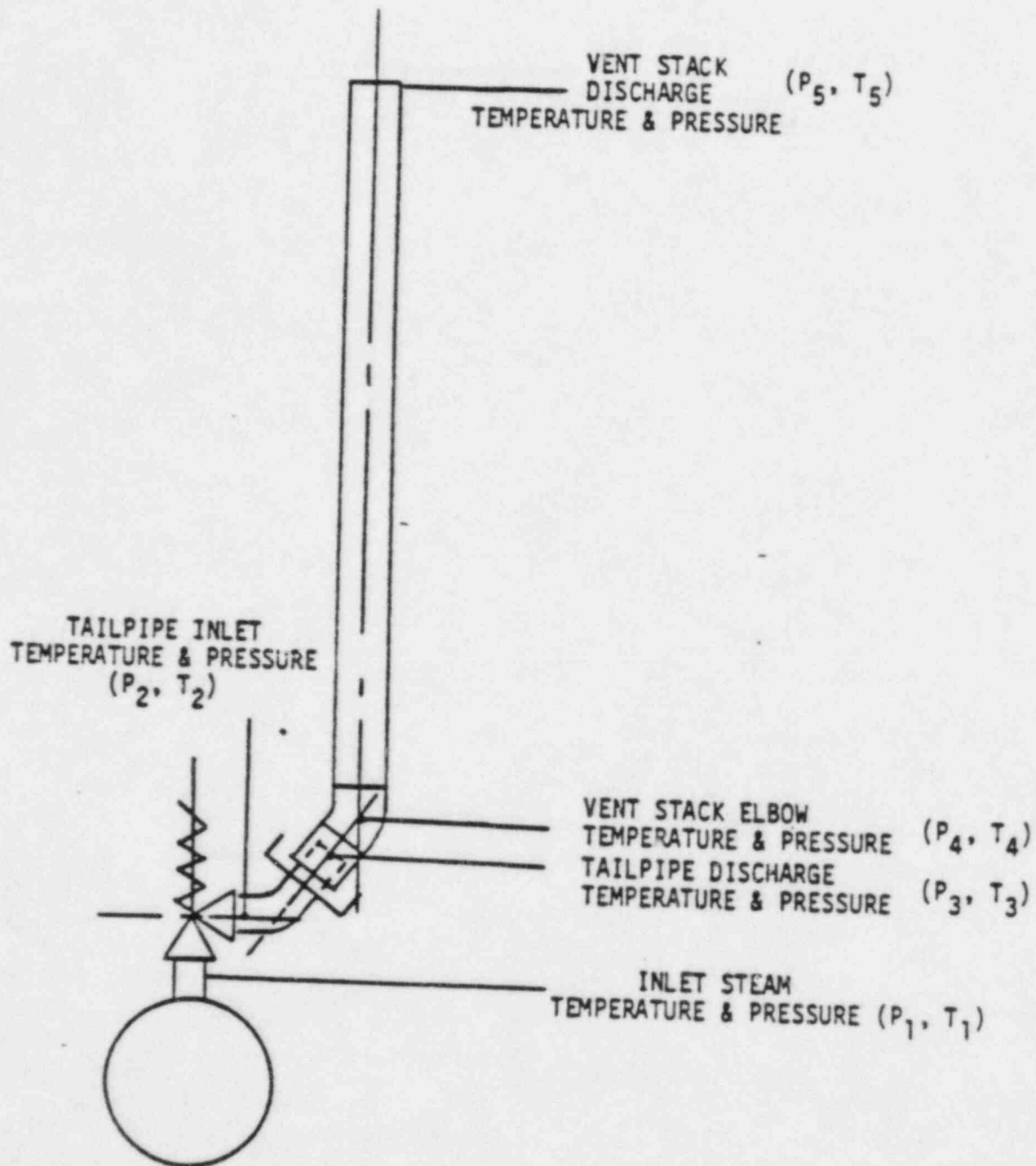


FIGURE 1. INSTRUMENTATION LOCATIONS (16, 18, AND 20-INCH VENT STACKS)



OCONEE 2 - EXTENDED BLOWDOWN FROM MAIN STEAM SAFETY VALVES

JULY 11, 1985 (H. NICOLARAS, NRR)

- OCONEE UNIT 2 REACTOR TRIP FROM 94% POWER CAUSED BY PERSONNEL ERROR
- TWO MAIN STEAM SAFETY VALVES DID NOT RESEAT AT SETPOINT - EXTENDED BLOWDOWN - TO ABOUT 990 PSI
- TO RESEAT VALVES, OPERATORS REDUCED STEAM PRESSURE THROUGH TURBINE BYPASS VALVES.
- FAILURE OF CROSBY MAIN STEAM SAFETY VALVES TO PROPERLY RESEAT HAS ALSO OCCURRED REPEATEDLY AT OCONEE UNIT 1
- IMPROPER RING SETTING IS A LIKELY CAUSE OF EXCESS BLOWDOWN, BUT NOT CONFIRMED.
- DUKE POWER COMMITTED CORRECTIVE ACTIONS TO REGION II
- SUMMARY OF PLANTS REPORTING SIMILAR BLOWDOWN PROBLEM

<u>PLANT</u>	<u>KNOWN # OF EVENTS</u>
OCONEE 1, 2, 3	31
TROJAN	1
SALEM	1



CAUSE: UNKNOWN

POSTULATED PROBLEM WITH RING SETTINGS

CORRECTIVE ACTIONS: READJUST, RESET SETPOINT, VALVE DISASSEMBLY

4 (OUT OF 16) VALVES REWORKED DURING EACH REFUELING

LICENSEE PURSUING METHODS FOR CHECKING BLOWDOWN SETTINGS

IMPLICATIONS: RCS OVERCOOLING

CHALLENGE TO ADDITIONAL SYSTEMS

POTENTIAL PRECURSOR TO STUCK OPEN VALVE OR FULL LIFT CAPACITY

WATERFORD 3 - PLANT TRIPS JULY 4-7, 1985

(J. WILSON, NRR)

- WATERFORD 3 EXPERIENCED FOUR REACTOR TRIPS IN LESS THAN THREE DAYS
- DURING A PORTION OF THIS TIME, THE EFW TURBINE-DRIVEN PUMP WAS UNAVAILABLE DUE TO BEING INADVERTENTLY TRIPPED
- JULY 4 AT 0950 HOURS - 100% PWR - LOW SG LEVEL-HIGH VIBRATION ON "A" MAIN FEEDWATER PUMP
- JULY 4 AT 2217 HOURS - 6% PWR - CPC AUXILIARY TRIP ON AXIAL SHAPE INDEX - XE OSCILLATIONS
- JULY 5 AT 2219 HOURS - 60% PWR - HIGH SG LEVEL DUE TO OVERFEEDING SG WHILE IN MANUAL CONTROL WITH ONE MAIN FEEDWATER PUMP RUNNING
- JULY 6 AT 0915 HOURS - 70% PWR - EFW PUMP TERRY TURBINE OVERSPEED LATCH WAS FOUND TO BE TRIPPED
- JULY 7 AT 0121 HOURS - 90% PWR - LOW SG LEVEL - LOSS OF MAIN FEEDWATER PUMPS ON LOW SUCTION WHILE AN OPERATOR WAS ATTEMPTING TO BACKWASH A CONDENSATE POLISHING SYSTEM FILTER
- LP&L CORRECTIVE ACTIONS:
  - REMOVING TRIP ON MAIN FEEDWATER PUMP VIBRATION--ALARM ONLY
  - REVISING OPERATING PROCEDURES
  - TRAINING, NIGHT ORDERS
- REGION IV AND IE MONITORING STARTUP ACTIVITIES

WATERFORD - 3, WOLF CREEK, CALLAWAY, CATAWBA AND BYRON -  
STARTUP EXPERIENCE COMPARISON (W, JONES, IE)

<u>FACILITY</u>	<u>FULL POWER</u> <u>LICENSE DATE</u>
WATERFORD - 3	(03-16-85)
WOLF CREEK	(06-04-85)
CALLAWAY	(10-18-84)
CATAWBA	(01-17-85)
BYRON	(02-14-85)

- BASED ONLY ON 50.72 NOTIFICATIONS-- SIGNIFICANT

EVENTS ONLY (I.E. NOT CONTROL ROOM ISOLATIONS ETC)

- FOR 4 MONTHS FOLLOWING FULL POWER LICENSE (ADJUSTED FOR  
SIGNIFICANT SHUTDOWNS)

REPORTED EVENT COMPARISON SUMMARY

	<u>MONTH</u>			
	<u>1ST</u>	<u>2ND</u>	<u>3RD</u>	<u>4TH</u>
WATERFORD	4	2	2	9
WOLF CREEK	9 -	--	--	--
CALLAWAY	11	2	3	1
BYRON	7	3	2	3
CATAWBA	5	0	1	5*

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MONTHLY  
AVG W/O  
WATERFORD &  
WOLF CREEK

7.6	1.6	2	3
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\*1 MONTH SHUTDOWN NOT INCLUDED IN PERIOD

# REACTOR TRIP AND FEEDWATER COMPARISON DETAIL

	<u>MONTH</u>	<u>SIGNIFICANT EVENT REPORTS</u>	<u>REACTOR+ TRIPS</u>	<u>INVOLVING LOFW</u>
WATERFORD 3	1	4	4	3
	2	2	2	0
	3	2	2	1
	4	<u>9</u>	<u>8</u>	<u>3</u>
	SUBTOTAL	17	16	7
WOLF CREEK	1	9	5	8
CALLAWAY	1	11	6	8
	2	2	2	0
	3	3	3	2
	4	<u>1</u>	<u>1</u>	<u>0</u>
		17	12	10
CATAWBA	1	5	3	1
	2	0	0	0
	3	1	1	1
	4	<u>5*</u>	<u>2</u>	<u>1</u>
		11	6	3
BYRON	1	7	6	2
	2	3	3	0
	3	2	1	1
	4	<u>3</u>	<u>3</u>	<u>0</u>
		15	13	3

\*MAY REFLECT RETURN TO POWER AFTER SHUTDOWN

+BASED ON AEOD & NRR STUDY FOR 1983/84, AVERAGE NUMBER OF TRIPS FOR  
4 MONTH PERIOD WAS 2.1, FOR ALL PWR'S.

PERSONNEL ERROR & EQUIPMENT PROBLEMS COMPARISON DETAIL

	<u>MONTH</u>	<u>SIGNIFICANT EVENTS</u>	<u>PERS ERROR</u>	<u>EQP PROB</u>	<u>OTHER</u>
WATERFORD 3	1	4	3	1	0
	2	2	1	1	0
	3	2	1	1	0
	4	<u>9</u>	<u>2</u>	<u>6</u>	<u>1</u>
		17	7	9	1
WOLF CREEK	1	<u>9</u>	<u>3</u>	<u>5</u>	<u>1</u>
		9	3	5	1
CALLAWAY	1	11	2	7	2
	2	2	0	1	1
	3	3	0	3	0
	4	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>
		17	2	12	3
CATAWBA	1	5	3	1	1
	2	0	0	0	0
	3	1	1	0	0
	4	<u>5</u>	<u>2</u>	<u>1</u>	<u>2</u>
		11	6	2	3
BYRON	1	7	2	4	1
	2	3	2	0	1
	3	2	0	1	1
	4	<u>3</u>	<u>0</u>	<u>3</u>	<u>0</u>
		15	4	8	3

CE LOCA ANALYSIS ERROR

JULY 2, 1985 (H. ROOD, NRR)

- NON-CONSERVATIVE ERROR FOUND IN CE LARGE-BREAK LOCA MODEL
- CENTER PEAK AXIAL POWER SHAPE YIELDS 34°F HIGHER PEAK CLAD TEMPERATURE (PCT) THAN PREVIOUSLY ASSUMED TOP-PEAKED SHAPE.
- FOR THREE CE PLANTS THAT ARE ON 1ST CYCLE THIS WOULD YIELD A PCT IN EXCESS OF THE 2200°F LIMIT OF 10 CFR 50.46.

PLANTS ARE:

PALO VERDE 1

SAN ONOFRE 3

WATERFORD 3

- BASED ON CE REANALYSIS, OTHER FACTORS IN LARGE-BREAK LOCA MODEL WILL REDUCE PCT TO BELOW 2200°F.
- LETTERS FROM THESE 3 LICENSEES BEING SUBMITTED GIVING BASIS FOR CONTINUED OPERATION.
- OTHER CE LICENSEES BEYOND CYCLE 1 AND (EVEN WHEN OTHER FACTORS NOT INCLUDED) HIGHER PCT DOES NOT REACH 2200°F LIMIT.



MOHAVE GENERATING STATION - REHEAT LINE FAILURE

JUNE 9, 1985 (R. BOSNAK, NRR)

- FAILURE OCCURRED JUNE 9, 1985 WHEN A 30" REHEAT LINE  
SUDDENLY SPLIT LONGITUDINALLY

FRACTURE WAS FISH MOUTH RUPTURE APPROXIMATELY  
20' x 6' FIG 1A & B

- SAFETY SIGNIFICANCE
  - FOSSIL PLANTS OF SIMILAR VINTAGE
  - NUCLEAR PLANTS

## REHEAT LINE - VITAL STATISTICS

- DESIGNED TO B31.1 CODE FOR STEAM CONDITIONS OF 1000°F AND 600 PSIG
- COMMENCED OPERATION 1971 CONSTRUCTION LATE 1960's
- FAILURE IN A HORIZONTAL SPOOL 30"-DIAMETER ROLLED AND WELDED OF A-378C PLATE (1 1/4 CR-1/2 MO) TO MEET A-155 WELDED PIPE

## COMPARISON WITH LWR PIPING

- MATERIAL NOT USUALLY USED IN LWR
- UPPER TEMPERATURE NOT IN CREEP RUPTURE AND CREEP FATIGUE RANGE IN LWR
- FABRICATION CONTROLS INCLUDING NDE SUPERIOR IN LWR
- LEAK DETECTION REQUIREMENTS IN LWR
- INSERVICE INSPECTION IN LWR

## FAILURE ANALYSIS

- RESULTS EXPECTED FROM SCE BY EARLY AUGUST

PALUEL 1 & 2, IN-CORE INSTRUMENTATION TUBE VIBRATION PROBLEMS

MARCH 29, 1985 (P. MORIETTE, NRR)

- INITIAL EVENT: MARCH 29, 1985, PALUEL 1 IN COLD SHUTDOWN.
- LEAK DETECTED ON ONE THIMBLE TUBE, WHILE LEAK TESTING IN-CORE INSTRUMENTATION SYSTEM.
- SUBSEQUENT FINDINGS:
  - APRIL 5: MECHANICAL WEAR (WITHOUT LEAK) ON 4 OTHER THIMBLES.
  - APRIL 16: A PROBE CANNOT BE COMPLETELY INSERTED IN ONE THIMBLE (PALUEL 1).
  - MAY-JUNE: 2 LEAKS ON PALUEL 2, ANOTHER LEAK ON PALUEL 1
- SAFETY SIGNIFICANCE: REACTOR COOLANT LEAKS, OR: NO FLUX MAPS. POSSIBILITY OF MIGRANT OBJECTS.
- MAJOR POINTS:
  - DEFECTS (OR LEAKS) LOCATED AT DISCONTINUITY IN GUIDING STRUCTURE
  - CAUSE THOUGHT TO BE HYDRAULIC EXCITATION DUE TO TURBULENCE IN THE CORE SUPPORT PLATE - BOTTOM OF FUEL ASSEMBLY REGION.
  - DIFFERENCES (FROM 900MWe SERIES) IN LOWER INTERNALS DESIGN AND MEASURED FLOW PARAMETERS SUPPORT THIS HYPOTHESIS.
  - LOWER INTERNALS W DESIGN. CORE INSTRUMENTATION SYSTEM (OUTSIDE VESSEL) FRAMATOME DESIGN.
- GENERIC IMPLICATIONS: ALL 1300MWe SERIES REACTORS AFFECTED IN FRANCE

- LICENSEE CORRECTIVE ACTIONS:

SHORT TERM: JUSTIFY OPERATION WITHOUT IN-CORE  
INSTRUMENTATION FOR 1 1/2 MONTH.

LONG TERM: MODIFY THIMBLE GUIDING PIECES ON TOP  
OF CORE SUPPORT PLATE FOR BETTER  
PROTECTION, REDUCE TURBULENT FLOW  
AROUND THIMBLES.

- ONLY AFFECTED US FACILITY: SOUTH TEXAS PROJECT 1 & 2

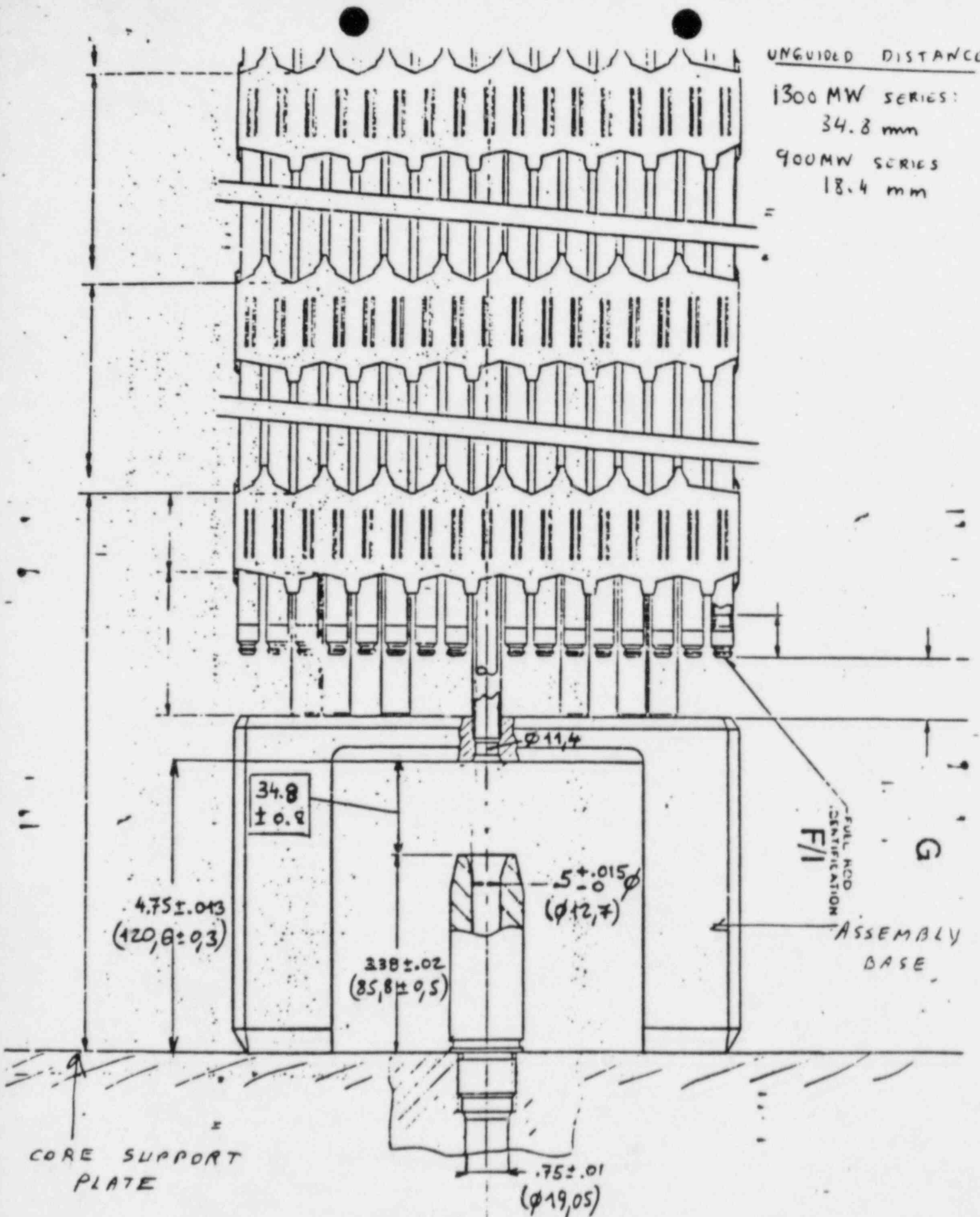
UNGUIDED DISTANCE

1300 MW SERIES:

34.8 mm

900 MW SERIES

18.4 mm



MILLSTONE UNIT 2 - FAILURE OF PRESSURIZER SPRAY VALVES TO SHUT  
JULY 15, 1985 (D. OSBORNE, NRR)

- RETURNED TO 100% POWER ON 7/11/85 AFTER 135 DAY REFUELING OUTAGE
- REACTOR TRIPPED ON JULY 15, 1985 ON THERMAL MARGIN/LOW PRESSURE SETPOINT (2130 PSI)
- PRESSURE DROP HALTED AT 1725 PSI
- TRIP ATTRIBUTED TO FAILURE OF BOTH PRESSURIZER SPRAY VALVES TO SHUT
- FISHER CONTROL AIR OPERATED 3 INCH ANGLE VALVES
- ONE MISADJUSTED - (WOULD NOT FULLY CLOSE)
- OTHER HAS MECHANICAL BINDING (PRELIMINARY)
- DURING INVESTIGATION DISCOVERED SPRAY VALVES WIRED TO WRONG CONTROLLER, AS SPECIFIED IN THE OUTAGE DESIGN CHANGE (NOT CAUSE OF FAILURE)
- LICENSEE HAS REVIEWED OTHER REFUELING OUTAGE DESIGN CHANGES AND TESTING
- CORRECTIVE ACTIONS: ONE VALVE WAS READJUSTED TO FULLY CLOSE  
OTHER VALVE WAS REPACKED AND REBUILT
- REGION REVIEWED PRIOR TO STARTUP
- PLANT RESTARTED ON JULY 20, 1985

## FERMI 2 - INADVERTENT CRITICALITY

JULY 2, 1985 (D. LYNCH, NRR)

- PROBLEM - INADVERTENT CRITICALITY JULY 2, 1985, DUE TO OPERATOR ERROR
- SAFETY SIGNIFICANCE -  
PLANT WAS IN ANALYZED CONDITION AND NEVER EXCEEDED SOURCE RANGE.
- REACTOR OPERATOR PULLED ROD BANK (ABOUT 8 TO 10 RODS) FULL OUT (NOTCH 48) RATHER THAN NOTCH 4, AS SPECIFIED.
- JULY 2 - INADVERTENT CRITICALITY DECLARED BY OPERATOR AND RODS REINSERTED. SHIFT SUPERVISOR REVIEWED OPERATOR ACTIONS AND DETERMINED THAT INADVERTENT CRITICALITY HAD NOT OCCURRED. NORMAL STARTUP COMPLETED.
- POSSIBLE LACK OF EFFECTIVE ASSISTANCE OR OBSERVATION BY SRO
- SHIFT TECHNICAL ADVISOR WAS IN TRAINING
- SUBSEQUENT SEQUENCE OF EVENTS:
  - JULY 7 - LICENSEE TECHNICAL STAFF CONFIRMED INADVERTENT CRITICALITY
  - JULY 8 - INADVERTENT CRITICALITY RECONFIRMED INDEPENDENTLY BY LICENSEE
  - JULY 10 - COMMISSION BRIEFING ON FULL POWER LICENSE
  - JULY 15 - REGION III NOTIFIED BY LICENSEE (1:30 PM CDT)
  - JULY 15 - FULL POWER LICENSE ISSUED BY NRC (3:15 PM EDT)
- REGION III ISSUED CONFIRMATORY ACTION LETTER LIMITING FERMI 2 TO 5 PERCENT POWER
- ENFORCEMENT CONFERENCE SCHEDULED FOR JULY 23
- INVESTIGATION CONTINUING



LA SALLE UNIT 1 - RHR FLOW SWITCHES IMPROPERLY INSTALLED

JULY 17, 1985 (R. CARUSO, NRR)

- PROBLEM - FOUR RHR FLOW ISOLATION SWITCHES FOUND TO BE  
PIPED BACKWARDS SINCE MARCH 1985 EQ UPGRADE,  
AS A RESULT OF BREAKDOWN IN MANAGEMENT  
CONTROL AND QA
- EVENT IS A REPEAT OF PROBLEM WITH UNIT 2 ECCS AND RHR  
SWITCHES IDENTIFIED ON 6/10/85
- SAFETY SIGNIFICANCE - RHR SWITCHES SERVE DIVERSE AND  
REDUNDANT FUNCTION TO ISOLATE RHR IN CASE OF BREAK - MINOR  
SIGNIFICANCE.
- LICENSEE WAITED FROM JUNE 10 TO JULY 17 TO TEST  
INSTALLATION, SINCE PLANT SHUTDOWN FOR UNRELATED ACTIVITY.
- CORRECTIVE ACTION - REGION III REVIEWING LICENSEE PLANS TO  
REVIEW MODIFICATION CONTROL SYSTEM, DRAWING CHANGES TO BE  
RE-REVIEWED, BOTH UNITS TO REMAIN SHUTDOWN UNTIL REVIEW  
COMPLETE.
- ESCALATED ENFORCEMENT ACTION BEING CONSIDERED.

TURKEY POINT 3 - REACTOR TRIP AND AFW VALVE FAILURE  
JULY 21, 1985 AND JULY 22, 1985 (T. ROTELLA, NRR)

LICENSEE: FLORIDA POWER & LIGHT

FACILITY: TURKEY POINT UNIT - 3

VENDOR: WESTINGHOUSE

INITIAL CONDITIONS: 100% POWER; STEADY STATE

CURRENT CONDITIONS: PLANT IN COLD SHUTDOWN

EVENT SEQUENCE:

EVENT HRS.	DATE	TIME	
0	7/21/85	23:41	- LIGHTNING STRIKE IN OR NEAR PLANT - REACTOR TRIP FROM 100% POWER - FIRST-OUT ANNUNCIATOR: TURBINE TRIP (CAUSE UNVER INVESTIGATION)
+1	7/22/85	00:40	- LO-LO LVL S/G #3B DUE MFW BYPASS VALVE FAILURE TO OPEN UPON OPERATOR INITIATION (CAUSE UNDER INVESTIGATION) - AFW PUMPS AUTO STARTED PROPERLY HOWEVER THE A&C PUMPS TRIPPED ON MECHANICAL OVERSPEED (CAUSE UNDER INVESTIGATION)
+3.5	7/22/85	04:05	- MFW PUMP TRIP DUE TO HI LVL S/G #3C (CAUSE WAS DUE TO LEAKING MFW BYPASS REGULATING VALVE) - ALL 3 AFW PUMPS SUCCESSFULLY STARTED AND RAN
+5.5	7/22/85	06:04	- PLANT BEGIN COOLDOWN FROM HOT S/D TO COLD S/D - AFW FLOW CONTROL VALVE FAILED TO CLOSE, (AFW V-2833 TO S/G #3C) CAUSE UNDER INVESTIGATION)

UNPLANNED REACTOR TRIPS\*

- AVERAGE WEEKLY TRIP FREQUENCY FOR PAST 7½ WEEKS IS APPROXIMATELY 10 TRIPS/WEEK, WHICH IS NEAR AVERAGE
- BREAKDOWN OF REPORTED CAUSES

AUTOMATIC

- EQUIPMENT FAILURES 52%
- PERSONNEL ACTIVITIES 40%

MANUAL

8%

\*BASED ON 10 CFR 50.72 REPORTS FOR PLANTS WITH LICENSES FOR FULL POWER OPERATION

Enclosure 3

OPERATING REACTORS' EVENTS MEETING FOLLOWUP ITEMS  
AS OF MEETING 85-12 ON JULY 23, 1985

(ORDERED BY ASCENDING MEETING DATES, WSSS VENDORS, FACILITY)

MEETING NUMBER/ MEETING DATE	FACILITY WSSS VENDOR/ EVENT DESCRIP.	RESPONSIBLE DIVISION/ INDIVIDUAL	TASK DESCRIPTION	SCHEDULE COMPLET. DATE(S)	CLOSED DATE BY DOCUMENT/ MEETING, ETC.	COMMENTS
04/10/84	RANCHO SECO 1 BW / MAIN GEN HYDROGEN EXPLOSION - PARTIAL LOSS OF NNI 3/19/84	DL /VISSING /	SUMMARIZE B&W LIC. RESPONSES TO QUESTIONS SUBSEQUENT TO RANCHO SECO LOSS OF NNI EVENT AND PRESENT AT FOLLOW-UP OR EVENTS BRIEFING	08/30/85 07/30/85 / /	OPEN / /	STAFF REVIEW OF B&W OWNERS GROUP SUBMITTAL OF 1/11/85 IS IN PROGRESS (THIS REACTIVATED- CRYS.RIV. 3)
08/07/84	SALEM 2 W / STUCK OPEN RELIEF VALVE/ ECCS ACTUATION JULY 25, 1984	DL /FISCHER, D. /	DETERMINE IF VELAN (PORV) BLOCK VALVE QUALIFIED TO CLOSE AGAINST 7/25/84 STEAM BLOWDOWN TRANSIENT AT SALEM 2. CHECK EIRI TEST PROGRAM RESULTS.	08/30/85 07/30/85 / /	OPEN / /	AEDD REPORT IN PREPARATION WILL ADDRESS THAT ISSUE.
01/03/85	CRYSTAL RIVER 3 BW / TEMP. LOSS OF NNI 12/28/84	ICSB/ROSA, F. /	CONSIDER NEED FOR ADDITIONAL REQUIREMENTS ON ALARMS / ANNUNCIATORS	09/30/85 07/30/85 / /	OPEN / /	ICSB IS CONSIDERING OCONEE 1 LOSS OF ANNUNCIATOR. (4/25/84) IN ANAL. OF REQUIREMENTS.
05/07/85	CATAWBA 2 W / BOTH RHR TRAINS OVERPRESSURIZED 4/19/85	DL /JABBOUR, K. /	FOLLOW UP BRIEFING AFTER EVAL. OF OVERPRESS. EFFECTS ON VARIOUS SYSTEMS AND CORRECTIVE ACTIONS.	09/30/85 08/01/85 08/07/85	OPEN / /	PRELIM. REPORT REC'D. ADD'L INFO. REQUESTED FROM LICENSEE. RESOLUTION PENDING REVIEW BY NRR & RII.
05/07/85	MILLSTONE 2 CE / EDDY CURRENT TEST OF STEAM GEN. TUBES, 4/10/85	ORAB/MURPHY, E. DE /CONRAD, H.	REVIEW SGO6 LETTER ON EDDY CURRENT TESTING ISSUE, IN VIEW OF MILLSTONE 2 FINDINGS.	10/01/85 08/01/85 08/07/85	OPEN / /	ORNL CONTRACTED TO EVALUATE EFFECT OF COPPER ON EDDY CURRENT TESTING
85-10 06/12/85	DAVIS BESSE 1 BW / LOSS OF ALL MAIN AND AUX. FEEDWATER 6/9/85	DST /SPEIS, T. DL /DEAGAZIO, A.	DETERMINE STATUS OF IMPLEMENTATION OF TMI ITEMS, GENERIC ISSUES, MPAs AT DAVIS BESSE THAT MAY BE RELATED TO 6/9/85 EVENT.	08/30/85 06/19/85 / /	OPEN / / STATUS OF IMPLEMENT. OF TMI ISSUES CLOSED- H. THOMPSON TO H. DENTON MEMO OF 6/20/85.	REMAINING 2 ISSUES (GENERIC & MPAs) IN PROGRESS. IIT REPORT UNDER REVIEW
85-10 06/12/85	DAVIS BESSE 1 BW / LOSS OF ALL MAIN AND AUX. FEEDWATER 6/9/85	DSI /PARR, O. DL /DEAGAZIO, A.	RE-EXAMINE STAFF REVIEW OF ACCEPTABILITY/ DIVERSITY OF DAVIS BESSE AFW SYSTEM.	08/30/85 06/19/85 / /	OPEN / /	IIT REPORT UNDER REVIEW

OPERATING REACTORS' EVENTS MEETING FOLLOWUP ITEMS  
AS OF MEETING 85-12 ON JULY 23, 1985

(ORDERED BY ASCENDING MEETING DATES, NSSS VENDORS, FACILITY)

MEETING NUMBER/ MEETING DATE	FACILITY NSSS VENDOR/ EVENT DESCRIP.	RESPONSIBLE DIVISION/ INDIVIDUAL	TASK DESCRIPTION	SCHEDULE COMPLET. DATE(S)	CLOSED DATE BY DOCUMENT/ MEETING, ETC.	COMMENTS
85-10 06/12/85	DAVIS BESSE 1 BW / LOSS OF ALL MAIN AND AUX. FEEDWATER 6/9/85	DL /DEAGAZIO, A. /	PROVIDE H. DENTON WITH 1) COMPARISON BETWEEN DAVIS BESSE 1 AND TMI-1 OF TMI ACTION PLAN IMPLEMENTATION STATUS 2) COMPARISON OF MFW AND AFW SYSTEMS AT DAVIS BESSE 1 & TMI-1 3) STATUS OF STARTUP FW PUMP UPGRADE.	08/30/85 06/19/85 / /	OPEN / / ITEM 1-6/20/85 MEMO H. THOMPSON TO H. DENTON PROVIDED UPDATE TO NUREG 1066	ITEMS 2 & 3 IN PROGRESS.
85-11 07/01/85	LASALLE 2 GE / EQ MODIFICATION PROBLEMS AND LOSS OF ALL ECCS JUNE 5-10, 1985	IE /BAER, R. /	CONSIDER ISSUANCE OF IE NOTICE.	08/30/85 / / / /	OPEN / /	
85-11 07/01/85	DYSTER CREEK 1 GE / UNCONTROLLED LEAKAGE OF REACTOR COOLANT OUTSIDE CONTAINMENT 6/12/85	DST /MINNERS LEAD DE /CHERNY ASST.	PRESSURE ISOLATION VALVE TESTING REQUIREMENT TO BE ADDRESSED IN CRGR BRIEFING.	08/30/85 / / / /	OPEN / /	
85-11 07/01/85	DYSTER CREEK 1 GE / UNCONTROLLED LEAKAGE OF REACTOR COOLANT OUTSIDE CONTAINMENT 6/12/85	DHFS/BOOHER, H. /	DETERMINE EFFICACY OF EP6/ OPERATOR ACTION AND EXCESSIVE RESPONSE TIME.	08/30/85 / / / /	OPEN / /	
85-11 07/01/85	RANCHO SECO 1 BW / RCS HIGH POINT VENT LEAK, 6/23/85	DL /MINER, S. /	DETERMINE STATUS OF IEB 79-14.	08/30/85 / / / /	OPEN / /	THE LICENSEE IS COMPLETING THE INSPECTION
85-11 07/01/85	RANCHO SECO 1 BW / STARTUP PROBLEMS- JUNE 1985	DL /MINER, S. /	SCHEDULE CONFERENCE CALL WITH REGION AND LICENSEE PRIOR TO RESTART TO DETERMINE PLANT READINESS FOR OPERATIONS.	08/15/85 07/12/85 / /	OPEN / /	EVALUATION IN PROGRESS
85-12 07/23/85	DCONEE 2 BW / EXTENDED BLOWDOWN FROM MAIN STEAM SAFETY VALVES	DL /NICOLARIS, H /	SCHEDULE CONFERENCE CALL WITH LICENSEE TO DISCUSS CROSBY VALVE PERFORMANCE	09/30/85 / / / /	OPEN / /	

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85-12 07/23/85	SEABROOK M / CROSBY MAIN STEAM SAFETY VALVE FLOW DEFICIENCY 12/84	DSI /MARSH /	ANALYZE SAFETY IMPLICATIONS OF VALVE FLOW DEFICIENCY	09/30/85 / / / /	OPEN / /	
85-12 07/23/85	SEABROOK M / CROSBY MAIN STEAM SAFETY VALVE FLOW DEFICIENCY 12/84	DE /CHERNEY /	INVESTIGATE ADEQUACY OF TESTING AND VALIDITY OF EXTRAPOLATING DATA FROM SMALL TO LARGE VALVES	09/30/85 / / / /	OPEN / /	
85-12 05/30/85	HATCH 1 6E / STUCK OPEN SAFETY RELIEF VALVE	ORAB/CARUSO, M. /	WILL DEVELOP TIA TO COORDINATE IE NOTICE AND FURTHER INVESTIGATIVE EFFORTS.	07/30/85 / / / /	CLOSED 07/23/85 TIA IN CONCURRENCE	