JAN 27 1992

Docket No. 50-302 License No. DPR-72

Florida Power Corporation Mr. P. M. Beard, Jr. Senior Vice President, Nuclear Operations ATTN: Manager, Nuclear Operations Licensing P. O. Box 219-NA-2I Crystal River, FL 32629

Gentlemen:

SUBJECT: ENFORCEMENT CONFERENCE SUMMARY (NRC INSPECTION REPORT NO. 50-302/91-25)

This letter refers to the Enforcement Conference held at our request on January 13, 1992. This meeting concerned activities authorized for your Crystal River facility. The issues discussed at this conference related to a reactor trip and subsequent emergency safeguards actuation which occurred on December 8, 1991. A list of attendees and a copy of the slides used in your presentation are enclosed. A list of background information provided by FPC at the Enforcement Conference is also provided as an enclosure. We are continuing our review of these issues to determine the appropriate enforcement action.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 1, Title 10, Code of Federal Regulations, a copy of this letter, its enclosures and a copy of the FPC provided background information will be placed in the NRC Public Document Room.

Should you have any questions concerning this letter, please let us know.

Sincerely,

Original Signed by Luis A. Reyes

Luis A. Reyes, Director Division of Reactor Projects

IEOI

Enclosures:

- 1. List of Attendees
- 2. FPC Presentation Slides
- 3. FPC Background Information

cc w/encls: See page 2

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JAN 27 1992

Florida Power Corporation

cc w/encls: Gary L, Boldt Vice President, Nuclear Production Florida Power Corporation P. O. Box 219-SA-2C Crystal River, FL 32629

P. F. McKee, Director Nuclear Plant Operations Florida Power Corporation P. O. Box 219-NA-2C Crystal River, FL 32629

R. C. Widell, Director Nuclear Operations Site Support Florida Power Corporation P. O. Box 219-NA-21 Crystal River, FL 32629

A. H. Stephens General Counsel Florida Power Corporation MAC = A5D P. O. Box 14042 St. Petersburg, FL 33733

Attorney General Department of Legal Affairs The Capitol Tallahassee, FL 32304

Jacob Daniel Nash Office of Radiation Control Department of Health and Rehabilitative Services 1317 Winewood Boulevard Tallahassee, FL 32399-0700

Administrator Department of Environmental Regulation Power Plant Siting Section State of Florida 2600 Blair Stone Road Tallahassee, FL 32301

cc w/encls cont'd: See page 3

JAN 27 1992

Florida Power Corporation

cc w/encls cont'd: Rotert G. Nave, Director Emergency Management Deportment of Community Affairs 2740 Centerview Drive Tallatassee.FL 32399-2100 3

Chairman Board of County Commissioners Citrus County 110 N. Apopka Avenue Inverness, FL 36250

Robert B. Borsum B&W Nuclear Technologies 1700 Rockville Pike, Suite 525 Rockville, MD 20852-1631

bcc w/encls: J. Johnson, RII K. Landis, RII H. Silver, NRR J. Lieberman, OE G. R. Jenkins, EICS Document Control Desk

NRC Resident Inspector U.S. Nuclear Regulatory Commission 6745 N. Tallahassee Rd. Crystal River, FL 32629

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ENCLOSURE 1

LIST OF ATTENDEES

NRC

J. L. Milhoan, Deputy Regional Administrator, Region II (RII) L. A. Reyes, Director, Division of Reactor Projects (DRP), RII J. R. Johnson, Deputy Director, DRP, RII M. V. Sinkule, Chief, Reactor Projects Branch 11, DRP, RI1 K. D. Landis, Chief, Reactor Projects Section 2B, DRP, RII P. Holmes-Ray, Senior Resident Inspector, Crystal River, DRP, RII R. P. Schin, Project Engineer, DRP, RII C. R. Ogle, Project Engineer, DRP, RII A. F. Gibson, Director, Division of Reactor Safety (DRS), RII T. A. Peebles, Chief, Operations Branch, DRS, RII R. V. Crlenjak, Chief, Operational Programs Section, DRS, RII J. L. Shackelford, Reactor Engineer, DRS, RII L. S. Mellen, Reactor Engineer, DRS, RII W. H. Rankin, Chief, Emergency Preparedness Section, Division of Radiation Safety and Safeguards, RII G. R. Jenkins, Director, Enforcement and Investigation Coordination Staff (EICS), RII B. Uryc, Senior Enforcement Specialist, EICS, RII C. Evans, Regional Counsel, RII H. N. Berkow, Director, Project Directorate II-2, DRP-1/II, Office of Nuclear Reactor Regulation (NRR) H. Silver, Senior Project Manager, Project Directorate II-2, DRP-I/II, NRR M. T. Markley, Operations Engineer, Performance and Quality Evaluation Branch, NRR R. M. Pedersen, Enforcement Specialist, Office of Enforcement

FPC

P. M. Beard, Senior Vice President, Nuclear Operations G. L. Boldt, Vice President, Nuclear Production V. R. Roppel, Manager, Nuclear Plant Maintenance

G. H. Halnon, Manager, Nuclear Plant Systems Engineering

P. Fleming, Senior Licensing Engineer

D. M. Porter, Acting Nuclear Operations Superintendent

M. Jacobs, Area Public Information Coordinator

ENCLOSURE 2

FLORIDA POWER CORPORATION CRYSTAL RIVER UNIT 3

ENFORCEMENT CONFERENCE JANUARY 13, 1992

INTRODUCTION

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G. L. BOLDT VICE PRESIDENT, NUCLEAR PRODUCTION

D. M. PORTER NUCLEAR SHIFT SUPERVISOR

INITIAL CONDITIONS

D. M. PORTER

- EVENT PROGRESS A. INITIATOR (SYMPTOMS) B. CONTROL ROD MOVEMENT C. PROGRESSION THRU PROCEDURES D. ES BYPASS E. SAFETY SIGNIFICANCE
 - F. CORRECTIVE ACTIONS

NOTIFICATIONS A. CORRECTIVE ACTIONS

RCV-14 ROOT CAUSE A. CORRECTIVE ACTIONS P. V. FLEMING SENIOR NUCLEAR LICENSING ENGINEER

G. H. HALNON MANAGER, NUCLEAR PLANT ENGINEERING

V. R. ROPPEL MANAGER, NUCLEAR PLANT MAINTENANCE

ACTIONS/LESSONS LEARNED A. PRIOR TO RESTART B. LONG TERM ACTIONS

CONCLUDING REMARKS

P. M. BEARD, JR. SENIOR VICE PRESIDENT, NUCLEAR OPERATIONS

G. L. BOLDT

OTHER ATTENDEES:

J. G. SMITH, NUCLEAR LICENSED OPERATOR TRAINING SUPERVISOR

INTRODUCTION

FPC'S PRESENTATION WILL FOCUS ON ADDRESSING THE FOLLOWING QUESTIONS/ISSUES:

- USE OF ANNUNCIATOR RESPONSE PROCEDURES
- WHY OPERATORS CONTINUED TO PULL RODS
- WHY ES WAS BYPASSED
- WHY STEP 3.14 OF AP-380 WAS OVERLOOKED
- COMMAND AND CONTROL OF THE EVENT BY SRO
- WHAT WAS ACTUAL SAFETY SIGNIFICANCE OF THE EVENT
- WHY WAS TIMELY EVENT NOTIFICATION NOT ACHIEVED
- SHOULD FPC HAVE BEEN ABLE TO ESTABLISH THE ROOT CAUSE OF THE RCV-14 FAILURE EARLIER BASED ON MAINTENANCE HISTORY OF PRIOR EVENTS
- WHY AND FOR HOW LONG WAS THE ANTI-ROTATION KEY MISSING
- WHAT ACTIONS DID FPC TAKE IN RESPONSE TO THIS EVENT

RESTART ACTIONS

- SHUTDOWN TO MODE 5
- EVALUATE PROBLEM

.

- AI-704 "REACTOR TRIP REVIEW AND ANALYSIS"
- BWOG TRANSIENT ASSESSMENT PROGRAM (TAP) REPORT
- PRC REVIEW
- SPECIAL REVIEW TEAM LOOKED FOR GENERIC ISSUES
- DEVELOPED CORRECTIVE ACTIONS AND RECOMMENDATIONS
- BRIEFED NRC
- PLACED LIMITATIONS ON RESTART
 - IMMEDIATE CORRECTIVE ACTIONS COMPLETE
 - REQUIRED PERSONAL APPROVAL OF SENIOR VP
 - CONDUCT S/U ON DAY SHIFT

IMMEDIATE CORRECTIVE ACTIONS

- IDENTIFY AND CORRECT THE ROOT CAUSE OF THE RCV-14 FAILURE
- DEVELOP STANDARDIZED GUIDANCE ON BYPASSING
 AFETY FUNCTIONS
- REINFORCE OBTAINING SRO PERMISSION PRIOR TO BYPASSING SAFETY FUNCTIONS
- ASSURE OPERATORS UNDERSTAND THE LESSONS LEARNED FROM THE THREE REACTOR TRIP EVENTS
- DESIGNATE A SPECIFIC SHIFT TO CONDUCT THE NEXT STARTUP AND PROVIDE THEM PRIOR SIMULATOR TIME TO PRACTICE
- PROVIDE SIMILAR SIMULATOR PRACTICE ON STARTUPS FOR OTHER AVAILABLE OPERATORS
- PROVIDE SPECIAL SIMULATOR TEAM TRAINING TO SHIFT ON DUTY DURING THE LOW PRESSURE TRIP
- ADD ONE MORE CHIEF NUCLEAR OPERATOR TO THE SHIFT ON DUTY DURING THE TRIP
- MAKE AN IMMEDIATE REVIEW OF WORK PERFORMED DURING THE MIDCYCLE OUTAGE TO IDENTIFY AND CORRECT ANY ADDITIONAL ITEMS THAT COULD AFFECT THE SUCCESS OF RESTART AND OPERATION

FPC FOLLOWUP ACTION

WORK WITH B&W OWNERS GROUP AND INPO TO ASSURE THE CURRENT LEVEL OF GUIDANCE REGARDING BYPASSING ENGINEERED SAFETY FUNCTIONS IS ADEQUATE THROUGHOUT THE INDUSTRY. ON FIRST REVIEW, THE FPC GUIDANCE BEFORE THE 12/8/91 REACTOR TRIP DOES NOT APPEAR TO BE DIFFERENT THAN THAT AT OTHER PLANTS.

INTRODUCTION

MY PRESENTATION WILL FOCUS ON ADDRESSING THE FOLLOWING QUESTIONS/ISSUES:

- USE OF ANNUNCIATOR RESPONSE PROCEDURES
- . WHY OPERATORS CONTINUED TO PULL HODS
- WHY ES WAS BYPASSED
- . WHY STEP 3.14 OF AP-380 WAS OVERLOOKED
- COMMAND AND CONTROL OF THE EVENT BY SRO
- WHAT WAS ACTUAL SAFETY SIGNIFICANCE OF THE EVENT
- WHAT ACTIONS DID FPC TAKE IN RESPONSE TO THIS EVENT

CORRECTIVE ACTIONS

- DEVELOP STANDARDIZED GUIDANCE ON BYPASSING SAFETY FUNCTIONS INCLUDING PRIOR SRO CONCURRANCE
- PROCEDURALIZE AND ENHANCE TRAINING ON THE USE OF ANNUNCIATOR RESPONSE PROCEDURES
- CLARIFY PROCEDURAL GUIDANCE ON COMPLETING FOLLOW UP STEPS IN EMERGENCY AND ABNORMAL PROCEDURES
- ENHANCE PROCEDURAL GUIDANCE FOR RCS PRESSURE CONTROL DURING OFF NORMAL CONDITIONS
- BALANCE CREW COMPOSITION
- ASSURE OPERATORS UNDERSTAND THE LESSONS LEARNED FROM THE THIS EVENT
- DESIGNATE A SPECIFIC SHIFT TO CONDUCT THE NEXT STARTUP AND PROVIDE THEM PRIOR SIMULATOR TIME TO PRACTICE
- SIMULATOR TRAINING ON STARTUPS FOR ALL AVAILABLE OPERATORS

CORRECTIVE ACTIONS

- PROVIDE SPECIAL SIMULATOR TEAM TRAINING TO SHIFT ON DUTY DURING THE LOW PRESSURE TRIP
- PROVIDE ADDITIONAL TRAINING TO OPERATORS ON DISTINGUISHING BETWEEN AN OVERCOOLING EVENT AND RCS DEPRESSURIZATION EVENT
- PROVIDED ADDITIONAL TRAINING ON EMERGENCY ACTION LEVELS AND EMPHASIZED TIMELY NOTIFICATIONS
- EMPHASIZE A "QUESTIONING ATTITUDE"
- PERFORM AN HPES EVALUATION

INITIAL CONDITIONS

TIME	CONDITION	PROCEDURES IN ' USE	OPERATORS THOUGHTS AND ACTIONS	FPC COMMENTS
02:40 - 02:46 (0-6 Minutes)	Reactor Power-11%, RCS Tave-564, RCS Pressure-normal	OP-216, OP-203 .		Normal/Expected Power, Temperatur and Pressure
		INITIATING EVENT	E	
TIME	CONDITION	PROCEDURES IN USE	OPERATORS THOUGHTS AND ACTIONS	FPC COMMENTS
02:46 (6 minutes)	Rod pulls in enticipation of energy drew down from transfer of AS supply	OP-203		
02:49	Draw down from transfer of Aux Steam to Main Steem	02 203	Control Room was appraised of	

 02:51
 Rol pull to compensate for snticipated cooldown due to
 OP-203
 The Operators did not want the RCS to
 The enticipation of events on the cooldown. Rods were pulled to

 (11 minutes)
 steam flow to DFT
 CP-203
 The Operators did not want the RCS to
 The enticipation of events on the cooldown. Rods were pulled to

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 Cooldown. Rods were pulled to
 Cooldown. Rods were pulled to
 Cooldown. Rods were pulled to

SUMMARY

The RCS temperature change was sufficient to insurge the PZR, raising RCS pressure to the setpoint for opening RCV-14. This is the point when RCV-14 stroked open yet the closed indication remained on.

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EVENT PROGRESSION Pretrip thru Rx trip

TIME	CONDITION	PROCEDURES IN USE	OPERATORS IGHTS AND ACTIONS	FPC COMMENTS
02:53 (13 minutes)	Ann. elerm (RCS Preesure Low)	AR-502 (Could have been used)	Operators verbalized the slarm and verified the slarm was valid. Shift personnal investigated symptoms of a LOCA and PZR operation. Suspect PZR. Temp. / PZR. Pressure Problem. An operator was sent to the PZR heater local panel and reported zero indication on one group of PZR heaters. Operators went to manual and closed RCV-14. Maintenance was dispatched to PZR heater control panel.	AR-S02 should have been referred to however contained little guidance for this transient. The report of improper operation of PZR heaters was a significant input to the Operators thought process. The closed indication on RCV-14 was backed up by an attempt to varify it was closed. The reason for the pressure transient was suspected to be due to PZR insurge at this time.
02:54 (14 minutes)	Pulled Control Rode to compensate for slight cooldown	OP-203	Cooldown in progress due to Aux steem to DFT event	
03:00 (20 minutes)	Pulled Control Rods to compensate for slight cooldown	OP-203	Operators pulled Control Rode to prevent an RCS cooldown	FPC agrees this was an inappropriate action. The operator should have looked at pressure as well as Tave to detarrains the necessity of the Control rod pull.
03:09 (29 minutes)	Reactor Tripped from ≈ 15% power	AP-580	Operators were monitoring RCS Pressure RPS tripped prior to expected trip setpoint. Operators completed Immediate actions of AP-580 and commenced follow up actions.	

SUMMARY

Significant troubleshooting of RCS depressurization was in progress. Numerous checks ruled out a LOCA situation. Operators focused on PZR insurge and the report of PZR heater operation as the source of the transient. Repair efforts on PZR heaters were initiated.

EVENT PROGRESSION Rx trip thru ES actuation

TIME	CONDITION	PROCEDURES IN USE	OPERATORS THOUGHTS AND ACTIONS	FPC COMMENTS
03:10 (30 minutes)	RCS temperature and pressure decreasing due to trip	AP-580	RCS pressure drop was due to the outsurge of the pressurizer	
03:12 (32 minutes)	ES bypassed (Operator action)	AP 580	The operator thought that RCS pressure rate of discresse was slowing down. The operator bypeseed ES and ennounced it to the team as he was performing the step.	Bypessing ES ectuation prior to receiving SRO permission was a personnel error and does not conform (-) established FPC practices
03:15 ;39 minutes)	ES Actuation bletables trip	AP-380	SRO's in the Control room were discussing the inappropriateness of ES bypass. SRO gave command to unbypass ES and ensure actuation	FPC surses that this was the appropriate action to take
03:19 ,39 minutes)	ES unbypassed (Operator action) 12 to 18 seconds after ES bistables tripped	AP-380, AP-580, AP-450, OP-450	Completed All AP Immediate actions. PZR level was increasing, RCS Pressure was increasing.	All ES equipment operated property
03:21 11 minutes)	Secured HPI	AP 580, AP 360, OP 305	Rcs pressure had increased above 1600 peig in less than 1 minute. This coupled with the requirements of AP- 380 step # 3.28 indicated no further need for HPI. The securing of HPI was in accordance with AP-380 step # 3.28. The SRO was at step 3.13 when the Operator announced the conditions for securing HP: ware met. The SRO went to step 3.28 to verify these conditions and continued from that point in completion this procedure	The root cause of missing step 3,14 was due to personnel error end was not in compliance with our Administrative Procedures.

SUMMARY

While the Uperators thought the cause of the depressurization was attributed to the PZR heaters/level, the depressurization was lower than expected for post trip conditions. This lead to the decision to unbypass ES. After the ES actuation, the RCS repressurization indicated no need for full HPI.

RECOVERY

TIME	CONDITION	PROCEDURES IN USE	OPERATORS THOUGHTS AND ACTIONS	FPC COMMENTS
03:24 (44 minutes)	Reset HPI bistables/restored ES	OP-202		
03:24 (44 minutes)	RCS pressure is relative stable	AP-580, OP-305	Plea was developed to raise PZR level to stabilize RCS pressure until the heaters could raise the PZR temperature	This plan was prudent for the information that the operator had with the axisting thought process.
03:35 (55 minutes)	SRO directed HPI to be bypessed	AP-580, OP-305	The plan was in place and pressurizer level was increasing. Letdown was reastablished for pressure control with a high PZR level. Subcooling margin was adequate and operator was given direction to remove ES bypaes if RCS pressure decreased to 1500 paig.	FPC concure with the decleion to bypass ES however, execution of the plan was not timely
03:35 (55 minutes)	HPI bistsbles tripped	AP-580, OP-305		
03:43 (63 minutes)	Established ≈ 300 gpm via MUV-24	AP-580, OP-305	This increased flow was required to increase RCS pressure	
03:53 (73 minutes)	ES restored to normel	OP-202		
≈03:54 (≈74 minutes)	Closed RCV-13		RCS inventory was not being changed and PZR temperature continued to decrease. This indicated en overcooling of the PZR	

SUMMARY

Through out the entire event reactivity was controlled with adequate S/D margin. Sufficient core cooling was main tained with greater than required subcooling margin through out the event. No release of radioactive inventory was made. All safety systems were maintained in F I available status and all ES equipment operated properly when called upon. The plant remained within analyzed conditions. Multiple Improvements were made from the lessons learned from this event and further recommendations are being evaluated.



REACTOR POWER vs TIME REACTOR TRIP (12/08/91

-



in.



(PSIG) PRESSURE 2,000 2,300 2,100 2,200 1,800 1,900 1,700 1,600 1,500 4 tra Time '0' is 02:40:00 ANN. time TIME (minutes) On 12/08/91 44. 'A' LOOP NARROW

RCS PRESSURE vs TIME REACTOR TRIP 12/08/91

RANGE INSTRUMENT RANGE INSTRUMENT B' LOOP NARROW





Time '0' is 02:40:00 Annunciator time on 12/08/91

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Radiological Emergency Planning Aspects

- Recognition and Declaration of the event
 - Timeliness
- Reporting and Notification of State and NRC
 - + All Emergency Plan notifications were made within the required time frame
- The problem is with timeliness of recognition not with notification

- Significance
 - + Isolated Incident
 - + Self Identified
 - + Past Performance
 - + EAL to be subsumed in Fission Product Barrier Degradation ICs or System Malfunction ICs
- Corrective Action
 - + SROs and OTAs have reviewed EALs
 - + EAL review on an increased frequency

RCV-14

PRESSURIZER SPRAY VALVE

FAILURE ANALYSIS

DETAILED LOOK AT 1990 AND 1991 FAILURES

ENGINEERING CORRECTIVE ACTIONS

MAINTENANCE CORRECTIVE ACTIONS

SUMMARY OF RECENT FAILURES RCV-14

REFUELING OUTAGE 7

- 6/90 Replace operator SN 344046 with rebuilt operator SN 102900
 - Replaced on a refueling interval due to previous Engineering recommendations

7/6/90 SN 102900 position indication problem

- Valve appeared to stroke
- Valve movement appeared erratic
- 7/10/90 Meeting held to evaluate probable failure causes
 - Operations, Maintenance, Engineering, generally felt problem in rotary limit switches
 - Key focus was on the operator

SUMMARY OF RECENT FAILURES RCV-14

- 10/90 Limit switches inspected and found out of adjustment, reset to proper indication.
- Not satisfied with position indication operation

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- 12/90 Refurbished operator SN 344046 installed Operator SN 102900 set aside for F.A.
- 5/31 Implemented a Repetitive Failure Pilot Program

- Valve stroking satisfactorily except indication
- Repetitive Failure Program identifies follow-up required
 - Plan set for Midcycle 8 to replace operator
 - F.A. teardown of operator SN 102900
 - Limit switch gear cartridge frozen
 - LS drive gear missing teeth
 - Reinforced focus and belief failure was operator specific

SUMMARY OF RECENT FAILURES RCV-14

MIDCYCLE 8 OUTAGE

4 142 4

- Operator SN 102900 installed
- Operator 344046 set aside for F.A.
- 12/8/91 Operator 102900 fails to close with closed indication

- 12/8/91 Operator SN 344046 Inspected and rebuilt
 - No gear damage found
 - No problems identified
- 12/91 Failure Analysis of valve and operator SN 102900
 - First time valve would not stroke
 - Second failure of SN 102900
 - Total of 11 probable causes evaluated
 - All eliminated except missing anti-rotation key causing packing to jam valve

CORRECTIVE ACTIONS

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- Research all gate and globe valves with anti-rotation key and ensure adequate installation
- Define single responsible department for failure analysis
- Provide training to Operations and Maintenance on Preservation of Evidence
 - Specific actions for specific component classes
- Reinforce concept of valve as total entity and not valve vs operator
- Assigned a Mechanical Engineer to the MOV program





SUMMARY

- FPC DOES NOT DENY VIOLATIONS OCCURRED; HOWEVER, FPC DOES NOT CONSIDER THE VIOLATIONS TO BE OF A SIGNIFICANCE DESERVING ESCALATED ENFORCEMENT.
- SHOULD THE NRC CONCLUDE ESCALATED ENFORCEMENT IS APPROPRIATE, FFC REQUESTS MITIGATION BE CONSIDERED BASED ON THE FOLLOWING FACTORS:
 - PROMPT AND THOROUGH CORRECTIVE ACTION (STRONG MANAGEMENT INVOLVEMENT)
 - ACTUAL SAFETY SIGNIFICANCE
 - ISOLATED INCIDENT IN VIEW OF PAST PERFORMANCE AND SALP REVIEWS (NO PROGRAMMATIC BREAKDOWN)
 - FPC IDENTIFIED AND CORRECTED EACH OF THE FOUR VIOLATION AREAS ITSELF IN THE COURSE OF INCIDENT RESPONSE OR FOLLOW-UP:
 - . ES BYPASS
 - . MISSED PROCEDURE STEP
 - . LATE REPORT
 - . RCV-14 ROOT CAUSE

ENCLOSURE 3

FPC BACKGROUND INFORMATION

1.	B&WOG TRANSIENT ASSESSMENT PROGRAM (TAP) - DRAFT PRELIMINARY UOER
2.	ENGINEERED SAFEGUARDS BYPASS GUIDANCE
3.	AP-380 - ENGINEERED SAFEGUARDS ACTUATION
4.	A1-704 - REACTOR TRIP REVIEW AND ANALYSIS
5.	INITIAL CONDITIONS/EVENT PROGRESS - D. M. PORTER
6.	NOTIFICATIONS - P. F. FLEMING
7.	RCV-14 ROOT CAUSE - G. H. HALNON, V. R. ROPPEL
8.	ACTIONS/LESSONS LEARNED - G. L. BOLDT
9.	FAILURE ANALYSIS (RCV-14)
10.	CONCLUDING REMARKS - P. M. BEARD, JR.
11.	FINAL REPORT - GENERIC IMPLICATIONS OF REACTOR TRIP EVENTS IN DECEMBER 1991