



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-8064

MAR - 2 1994

Dockets: 50-498  
50-499  
Licenses: NPF-76  
NPF-80

Houston Lighting & Power Company  
ATTN: William T. Cottle, Group  
Vice President, Nuclear  
P.O. Box 289  
Wadsworth, Texas 77483

SUBJECT: FEBRUARY 14, 1994, MANAGEMENT MEETING

This refers to the meeting conducted at the NRC's request at the South Texas Project site on February 14, 1994. This meeting related to your progress in addressing current issues. Issues discussed included the issues listed in the Confirmatory Action Letter of February 5, 1994, and its supplements dated May 7 and October 15, 1993. In addition, other recent issues, your operational readiness reviews, your power ascension plan, and the status of commitments made in your letter of January 29, 1994, were discussed.

After a recess the NRC Regional Administrator responded to your presentation, noting that, pending completion of two items, he had no objection to your restarting South Texas Project, Unit 1. The two items involved testing of main feedwater isolation valve bypass valves and providing briefings to workers and supervisors regarding management's expectations in the area of work practices.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter will be placed in the NRC's Public Document Room.

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

08-077

A. Bill Beach, Director  
Division of Reactor Projects

Attachments:

1. Attendance List
2. Licensee Presentation

9403090101 940302  
PDR ADOCK 05000498  
P PDR

JE01

Houston Lighting & Power Company -2-

cc w/attachments:  
Houston Lighting & Power Company  
ATTN: James J. Sheppard, General Manager  
Nuclear Licensing  
P.O. Box 289  
Wadsworth, Texas 77483

City of Austin  
Electric Utility Department  
ATTN: J. C. Lanier/M. D. Lee  
721 Barton Springs Road  
Austin, Texas 78704

City Public Service Board  
ATTN: K. J. Fiedler/M. T. Hardt  
P.O. Box 1771  
San Antonio, Texas 78296

Newman & Holtzinger, P. C.  
ATTN: Jack R. Newman, Esq.  
1615 L Street, NW  
Washington, D.C. 20036

Central Power and Light Company  
ATTN: G. E. Vaughn/T. M. Puckett  
P.O. Box 2121  
Corpus Christi, Texas 78403

INPO  
Records Center  
700 Galleria Parkway  
Atlanta, Georgia 30339-5957

Mr. Joseph M. Hendrie  
50 Bellport Lane  
Bellport, New York 11713

Bureau of Radiation Control  
State of Texas  
1100 West 49th Street  
Austin, Texas 78756

Judge, Matagorda County  
Matagorda County Courthouse  
1700 Seventh Street  
Bay City, Texas 77414

Houston Lighting & Power Company

-3-

Licensing Representative  
Houston Lighting & Power Company  
Suite 610  
Three Metro Center  
Bethesda, Maryland 20814

Houston Lighting & Power Company  
ATTN: Rufus S. Scott, Associate  
General Counsel  
P.O. Box 61867  
Houston, Texas 77208

Shaw, Pittman, Potts & Trowbridge  
ATTN: Joseph R. Egan, Esq.  
2300 N Street, N.W.  
Washington, D.C. 20037

MAR - 2 1994

bcc to DMB (IE01)

bcc distrib. by RIV:

L. J. Callan

Branch Chief (DRP/A)

MIS System

RIV File

R. Bachmann, OGC, MS: 15-B-18

Resident Inspector

Lisa Shea, RM/ALF, MS: MNBB 4503

DRSS-FIPB

Project Engineer (DRP/A)

Branch Chief (DRP/TSS)

RIV:C:DRP/A	D:DRP			
WDJohnson;df	ABBeach			
2/27/94	3/2/94			



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RIV:C:DRP/A	D:DRP			
WDJohnson;df	ABBeach			
2/27/94	2/2/94			

ATTENDANCE LIST

Attendance at the management meeting between Houston Lighting & Power Company and the NRC on January 7, 1994, at the South Texas Project site:

HL&P

D. Jordon, Chairman and Chief Executive Officer  
W. Cottle, Group Vice President, Nuclear  
J. Groth, Vice President, Nuclear Generation  
S. Rosen, Vice President, Industry Relations  
J. Sheppard, General Manager, Licensing  
T. Cloninger, Vice President, Nuclear Engineering  
L. Myers, Plant Manager, Unit 1  
L. Martin, General Manager, Nuclear Assurance  
H. Butterworth, Manager, Unit 1 Operations  
G. Parkey, Plant Manager, Unit 2  
R. Masse, General Manager, Generation Support  
W. Dowdy, Manager, Unit 2 Operations

HOUSTON INDUSTRIES, INCORPORATED

D. Sykora, President

CITY PUBLIC SERVICE - SAN ANTONIO

M. Hardt, Director, Nuclear Division

CENTRAL POWER & LIGHT

C. Johnson, Manager, STP Activities

CENTRAL AND SOUTHWEST CORPORATION

G. Vaughn, Vice President, Nuclear

CITY OF BAY CITY, TEXAS

C. Martinez, Jr., Mayor

UNITED KINGDOM - NUCLEAR INSTALLATIONS INSPECTORATE

L. Williams, Deputy Chief Inspector  
J. Wilson, Principal Nuclear Inspector

NRC

- L. Callan, Regional Administrator
- S. Collins, Director, Radiation Safety and Safeguards
- S. Black, Director, Project Directorate IV-2, Office of Nuclear Reactor Regulation (NRR)
- W. Johnson, Chief, Project Branch A, Division of Reactor Projects (DRP/A)
- L. Kokajko, Senior Project Manager, Project Directorate IV-2, NRR
- D. Loveless, Senior Resident Inspector, DRP/A
- C. Hackney, State Liaison Officer
- D. Garcia, Resident Inspector, DRP/A
- J. Mitchell, Senior Regional Coordinator
- G. Cook, Senior Public Affairs Officer

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**SOUTH TEXAS PROJECT**

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**HL&P and NRC Management Meeting**

February 14, 1994



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**VISION: STP -- A WORLD-CLASS POWER PRODUCER**

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AGENDA

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| I. OPENING REMARKS                                   | W. T. COTTLE   |
| II. CONFIRMATORY ACTION LETTER ISSUES                | J. J. SHEPPARD<br>J. F. GROTH<br>T. H. CLONINGER<br>W. T. COTTLE |
| III. RECENT ISSUES                                   | J. F. GROTH  |
| IV. OPERATIONAL READINESS REVIEW                     | T. H. CLONINGER<br>L. E. MARTIN<br>J. J. SHEPPARD                |
| V. POWER ASCENSION PLAN                              | J. F. GROTH<br>L. W. MYERS                                       |
| VI. STATUS OF JANUARY 29, 1994<br>LETTER COMMITMENTS | J. J. SHEPPARD   |
| VII. CLOSING REMARKS                                 | W. T. COTTLE   |

OPENING REMARKS

CONFIRMATORY ACTION LETTER ISSUES



CONFIRMATORY ACTION LETTERS

NRC LETTER DATED FEBRUARY 5, 1993

SUPPLEMENT DATED MAY 7, 1993

SUPPLEMENT 2 DATED OCTOBER 15, 1993

## TORNADO DAMPERS

### ISSUE

ADEQUACY OF TORNADO DAMPER TESTS

### ACTIONS

REQUIRED TESTS HAD BEEN PERFORMED

REVISED PREVENTIVE MAINTENANCE PROCEDURES

REVISED SEVERE WEATHER GUIDELINES

DAMPERS WILL FUNCTION AS DESIGNED - READY TO RESUME  
POWER OPERATION

## EMERGENCY PREPAREDNESS

### ISSUE

ACCEPTABILITY OF EMERGENCY PREPAREDNESS ACCOUNTABILITY  
DRILL RESULTS

### ACTIONS

EVALUATED ASSEMBLY AND ACCOUNTABILITY PROCESS

IMPLEMENTED PROGRAM UPGRADES

TESTED UPGRADES WITH DRILLS

DRILL GOALS MET - READY TO RESUME POWER OPERATION

## SERVICE REQUEST BACKLOG

### ISSUE

SIZE OF SERVICE REQUEST BACKLOG, INCLUDING REDUCTION ACCOMPLISHED DURING THE CURRENT OUTAGES AND THE REVIEW OF OUTSTANDING SERVICE REQUESTS FOR ISSUES AFFECTING EQUIPMENT OPERABILITY, SAFE PLANT OPERATION AND OPERATOR WORK-AROUNDS

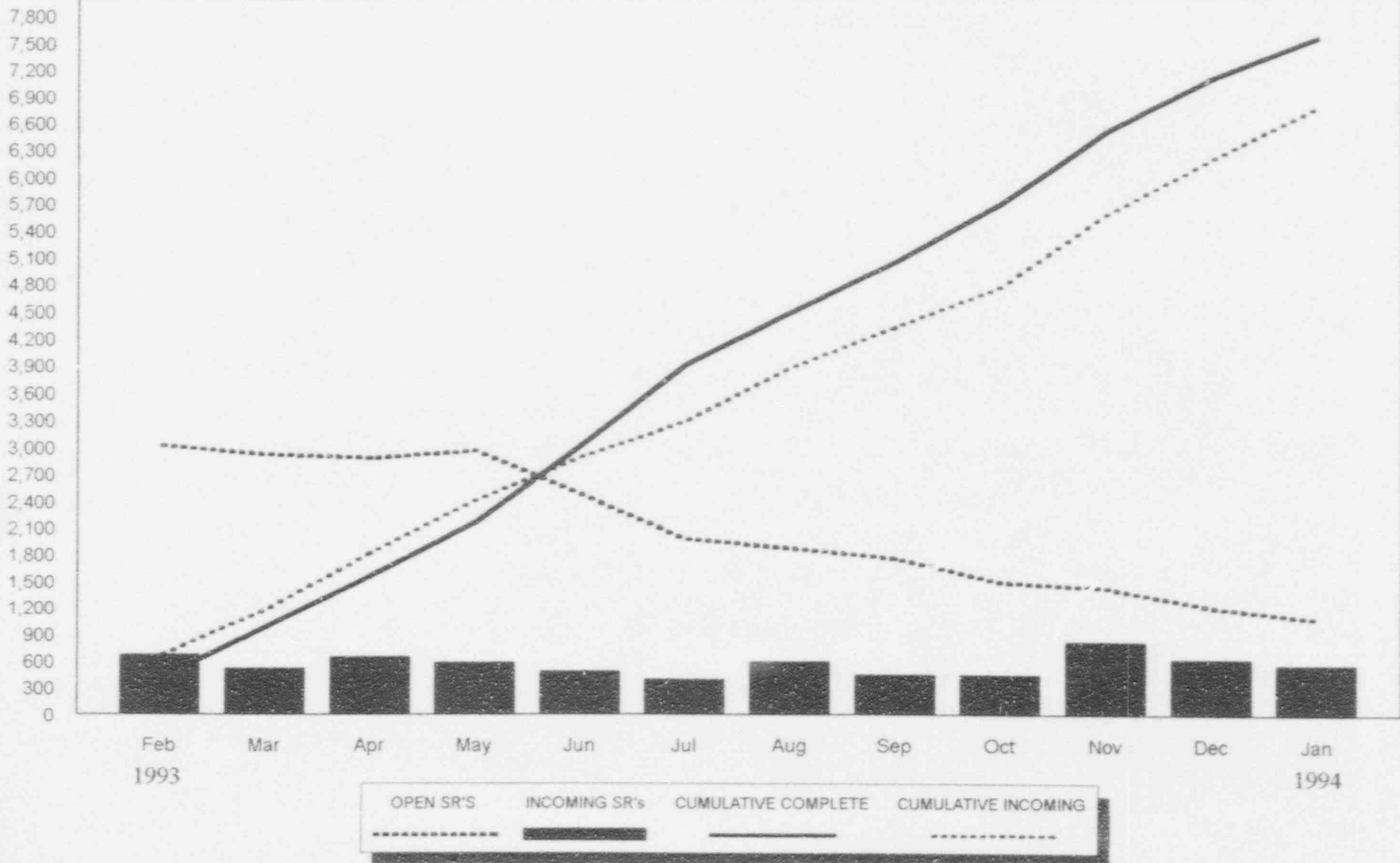
### ACTIONS

SERVICE REQUESTS AFFECTING EQUIPMENT OPERABILITY, SAFE PLANT OPERATION AND OPERATOR WORK-AROUNDS HAVE BEEN IDENTIFIED AND COMPLETED OR SCHEDULED FOR APPROPRIATE MILESTONE

WORK PROCESS IMPROVED AND IS EFFECTIVELY MANAGING BACKLOG AND NEW WORK

READY TO RESUME POWER OPERATION

# UNIT 1 PREVENTIVE & CORRECTIVE SERVICE REQUESTS



## POST MAINTENANCE TESTING

### ISSUE

ADEQUACY OF POST MAINTENANCE TEST PROGRAM, INCLUDING CORRECTIVE ACTIONS IN RESPONSE TO RECENT VIOLATIONS AND OTHER PROCESS IMPROVEMENTS AND THE BASIS FOR CONFIDENCE THAT EQUIPMENT REMOVED FROM SERVICE FOR MAINTENANCE IS PROPERLY RESTORED TO AN OPERABLE STATUS

### ACTIONS

IMPROVED POST MAINTENANCE TESTING PROCESS

PLANNERS SPECIFY POST MAINTENANCE TESTS, OPERATIONS WORK CONTROL GROUP SPECIFIES OPERABILITY TESTS

MATRICES SPECIFYING TEST REQUIREMENTS ARE INCLUDED IN WORK INSTRUCTIONS

TESTING REVIEWED AND COORDINATED BY OPERATIONS WORK CONTROL GROUP

READY TO RESUME POWER OPERATION

## OPERATIONS STAFFING

### ISSUE

ADEQUACY OF STAFFING THE OPERATIONS DEPARTMENT, INCLUDING ADEQUACY OF CURRENT STAFFING LEVELS, PLANS FOR REPLACING PLANNED AND UNEXPECTED LOSSES TO SUPPORT SAFE PLANT STARTUP AND OPERATION, AND THE ADEQUACY OF STAFFING UNDER EMERGENCY CONDITIONS

### ACTIONS

IMPLEMENTED SIX CREW ROTATION

FIVE NON-LICENSED OPERATORS PER SHIFT

ADDITIONAL SENIOR REACTOR OPERATORS

MANAGEMENT SENIOR REACTOR OPERATOR CERTIFICATION

ESTABLISHED LONG TERM "PIPELINES" FOR LICENSED AND NON-LICENSED OPERATORS

OPERATIONS STAFFING

ACTIONS (CONT.)

REDUCED OPERATOR BURDEN

OPERATIONS WORK CONTROL GROUP

TRANSFERRED NON-POWER BLOCK SYSTEMS

TRANSFERRED FIRE BRIGADE TEAM LEADER DUTIES

REDUCED OPERATOR WORK-AROUNDS, INOPERABLE  
AUTOMATIC CONTROL SYSTEMS AND COMPONENTS ON  
INCREASED SURVEILLANCE FREQUENCY

INCREASED STAFFING ADEQUATE UNDER ALL CONDITIONS

READY TO RESUME POWER OPERATION



## FIRE BRIGADE LEADER TRAINING

### ISSUE

ADEQUACY OF FIRE BRIGADE LEADER TRAINING, INCLUDING VERIFICATION THAT THE TRAINING MEETS REGULATORY REQUIREMENTS

### ACTIONS

REVIEWED TRAINING PLANS AND PREVIOUSLY IDENTIFIED CONCERNS

COMPARED TRAINING TO INDUSTRY

TRAINING DETERMINED TO BE ACCEPTABLE; HOWEVER, TRAINING WAS ENHANCED BASED ON FIRE BRIGADE LEADER INPUT

ELECTRICAL DISTRIBUTION SYSTEMS  
REACTOR CONTAINMENT BUILDING WALK-THROUGHS  
TABLETOP SCENARIOS

READY TO RESUME POWER OPERATION

## FIRE PROTECTION HARDWARE

### ISSUE

ADEQUACY OF FIRE PROTECTION COMPUTERS INCLUDING  
RELIABILITY AND FUNCTIONALITY OF OPERATOR INTERFACE

### ACTIONS

HARDWARE UPGRADES

REDUCED FREQUENCY OF NUISANCE ALARMS

REDUCED BURDEN ON OPERATORS

REDUCED WORK BACKLOG

READY TO RESUME POWER OPERATION

## CORRECTIVE ACTION

### ISSUE

ADEQUACY OF THE STATION PROBLEM REPORT REVIEW PROCESS, INCLUDING PROCESS IMPROVEMENTS, THRESHOLD, AND THE RESULTS OF THE REVIEW OF EXISTING REPORTS FOR ISSUES AFFECTING EQUIPMENT OPERABILITY AND SAFE PLANT OPERATION

### ACTIONS

PROGRAM IMPROVEMENTS

EMPHASIS ON PROBLEM REPORTING

UP-FRONT SHIFT SUPERVISOR REVIEW

CORRECTIVE ACTION

ACTIONS (CONT.)

INCREASED MANAGEMENT ATTENTION

DAILY PEER SCREENING GROUP

DAILY PROBLEM REVIEW GROUP (PLANT MANAGER AND  
DEPARTMENT MANAGERS)

REVIEWED WEEKLY AT FRIDAY PLAN OF THE DAY MEETING

IMPROVED ROOT CAUSE ANALYSIS

BACKLOG ADDRESSED

SCREENED OPEN SPRs - MODE RESTRAINTS, SYSTEM  
CERTIFICATIONS, SELF ASSESSMENTS AND INDEPENDENT  
ASSESSMENTS

SAMPLED CLOSED SPRs - STARTUP RESTRAINTS, CAUSE,  
CORRECTIVE ACTIONS AND OPERABILITY/REPORTABILITY

## CORRECTIVE ACTION

### ACTIONS (CONT.)

IMPROVEMENT INITIATIVES UNDERWAY AS A RESULT OF INTERNAL REVIEWS AND NRC OPERATIONAL READINESS ASSESSMENT TEAM OBSERVATIONS

MONITOR SPR CATEGORIZATION TO ENSURE THAT ROOT CAUSE EVALUATIONS ARE PERFORMED FOR SIGNIFICANT EVENTS

PROVIDE TRAINING TO SPR INVESTIGATORS ON EQUIPMENT FAILURE ANALYSIS AND ROOT CAUSE ANALYSIS

ENSURE SPR CORRECTIVE ACTIONS FOCUS ON ROOT AND CONTRIBUTORY CAUSES

PROVIDE "TREND" SPRs TO THE PROBLEM REVIEW GROUP (PLANT MANAGERS AND DEPARTMENT MANAGERS) FOR CLOSURE REVIEW

CORRECTIVE ACTION

OVERALL CONCLUSIONS

ISSUES AFFECTING RELIABILITY AND AVAILABILITY IDENTIFIED AND ADDRESSED

AGE AND INVENTORY ARE BEING REDUCED WHILE MAINTAINING THE INPUT RATES FAIRLY CONSTANT

IMPROVEMENTS INITIATIVES CONTINUE - READY TO RESUME POWER OPERATION

## ENGINEERING BACKLOG

### ISSUE

SIZE OF THE ENGINEERING BACKLOG (DESIGN MODIFICATIONS, TEMPORARY MODIFICATIONS, AND OTHER ENGINEERING BACKLOG ITEMS), INCLUDING THE REVIEW OF THESE FOR ISSUES AFFECTING EQUIPMENT OPERABILITY, SAFE PLANT OPERATION, AND OPERATOR WORK-AROUNDS

### ACTIONS

BACKLOG REVIEWED FOR WORK ITEMS POTENTIALLY AFFECTING OPERABILITY, SAFE PLANT OPERATION AND OPERATOR WORK-AROUNDS

GOALS ESTABLISHED

RESOURCES APPLIED

GOALS ACHIEVED

LONG TERM MANAGEMENT/PROCESS IMPROVEMENTS

ENGINEERING BACKLOG

ACTIONS (CONT.)

REORGANIZATION

FUNCTIONAL RESPONSIBILITY/OWNERSHIP FOCUS

BETTER COMMUNICATION

SYSTEM ENGINEERING

GUIDELINES AND DIVISION OF RESPONSIBILITY DOCUMENTS

MORE HUMAN RESOURCES

BETTER TOOLS FOR TRACKING/TRENDING

OVERALL CONCLUSION

READY TO RESUME POWER OPERATION



## STANDBY DIESEL GENERATOR

### ISSUE

STANDBY DIESEL GENERATOR RELIABILITY

### ACTIONS

EXTENSIVE INSPECTIONS

CONTROL CIRCUIT MODIFICATIONS

POST MODIFICATION TESTING COMPLETED

"SIMULATED RUN" TESTING

DEDICATED MAINTENANCE TEAM

DEVELOPED LONG TERM PLAN TO FURTHER ENHANCE RELIABILITY

RELIABILITY ENHANCED AND COMPONENTS WILL PERFORM AS  
DESIGNED - READY TO RESUME POWER OPERATION

ESSENTIAL CHILLERS

ISSUE

ESSENTIAL CHILLER RELIABILITY

ACTIONS

INSTALLED MANUAL BYPASS VALVE

CHILLER PERFORMANCE RECALCULATED

POST MODIFICATION TEST COMPLETED AND RESULTS PROVIDED TO THE NRC

SYSTEM WILL FUNCTION AS DESIGNED, INCLUDING COLD WEATHER CONDITIONS - READY TO RESUME POWER OPERATION

## FEEDWATER ISOLATION BYPASS VALVES

### ISSUE

RELIABILITY AND OPERABILITY OF THE FEEDWATER ISOLATION BYPASS VALVES

### ACTIONS

VALVES MODIFIED TO PREVENT REVERSE FLOW

EQUIPMENT QUALIFICATION CONCERN RESOLVED

POST MODIFICATION TEST COMPLETED

GENERIC EQUIPMENT QUALIFICATION ISSUE RESOLVED

COMPONENTS WILL FUNCTION AS DESIGNED - READY TO RESUME POWER OPERATION

TURBINE DRIVEN AUXILIARY FEEDWATER PUMP

ISSUE

TURBINE DRIVEN AUXILIARY FEEDWATER PUMP RELIABILITY AND TESTING METHODOLOGY

ACTIONS

MATERIAL DEFICIENCIES CORRECTED

PREVENTIVE MAINTENANCE PROCEDURES REVISED

SURVEILLANCE PROCEDURE REVISED

AUGMENTED TESTING COMPLETE

ENHANCED SURVEILLANCE PROGRAM FOR POWER ASCENSION

COMPONENTS WILL FUNCTION AS DESIGNED - READY TO RESUME POWER OPERATION

MANAGEMENT EFFECTIVENESS

ISSUE

MANAGEMENT EFFECTIVENESS IN IDENTIFYING, PURSUING AND CORRECTING PLANT PROBLEMS, INCLUDING ANY PLANS FOR INDEPENDENT REVIEWS

ACTIONS

NEW SENIOR MANAGEMENT TEAM

ORGANIZATIONAL CHANGES

REDUCED LAYERS OF MANAGEMENT  
FOCUSED RESPONSIBILITY FOR KEY FUNCTIONS

IMPROVEMENT PLANS

OPERATIONAL READINESS PLAN  
BUSINESS PLAN

MANAGEMENT EFFECTIVENESS

ACTIONS (CONT.)

ENHANCED COMMUNICATIONS

OVERALL CONCLUSION

READY TO RESUME POWER OPERATION

EMPLOYEE CONCERNS PROGRAM

ISSUE

EFFECTIVENESS OF EMPLOYEE CONCERNS PROGRAM

ACTIONS

"OPEN ATMOSPHERE" COMMUNICATED TO EMPLOYEES

TRAINING FOR EMPLOYEES/MANAGERS/SUPERVISORS

EMPLOYEE ADVOCATE FUNCTION ADDED

CONCERNS ADDRESSED BY APPROPRIATE GROUP

NEW CONTRACT MANAGER REPORTS DIRECTLY TO GROUP VICE  
PRESIDENT, NUCLEAR

EMPHASIS ON MAINTAINING CONFIDENTIALITY

READY TO RESUME POWER OPERATION

RECENT ISSUES



## RECENT ISSUES

### UNANTICIPATED ACTUATIONS

UNANTICIPATED EQUIPMENT STARTS, EQUIPMENT TRIPS, EQUIPMENT CHANGE OF STATE (VALVE CLOSURE, BREAKER TRIP, ETC.) OR ALARMS MAY PRESENT CHALLENGES TO OPERATORS OR PLANT HARDWARE

### ACTIONS

2 MAINTENANCE SUPERVISORS PER CREW - TIME FOR REVIEWING WORK PACKAGES THE WEEK PRIOR TO WORK

IMPROVED PRE-EVOLUTION (PRE-JOB, PRE-TEST, ETC.) BRIEFINGS

PRE-APPROVAL OF NORMALLY SCHEDULED WORK PACKAGES AT LEAST 24 HOURS PRIOR TO SCHEDULED START DATE. GOAL IS PRE-APPROVAL OF 5 TO 7 DAYS

SPECIAL TASK FORCE REVIEW OF 1993 ACTUATIONS WITH CORRESPONDING RECOMMENDATIONS AND ACTION PLAN

FIRST LINE SUPERVISOR / CREW DISCUSSIONS

RECENT ISSUES

HUMAN PERFORMANCE

HUMAN PERFORMANCE ISSUES 1/19 - 1/22/94

ACTIONS

STOP WORK ORDERED ON 1/22/94

DETERMINED TO BE LINE MANAGEMENT ISSUE

DEVELOPED OBJECTIVES AND PRINCIPLES

DEVELOPED WRITTEN PERFORMANCE EXPECTATIONS

FIRST LINE SUPERVISOR/CREW DISCUSSIONS

VIDEOTAPE AND VICE PRESIDENT, NUCLEAR GENERATION  
DISCUSSION ON POTENTIAL CONSEQUENCES OF HUMAN ERRORS

THOROUGHLY INVESTIGATED EACH ISSUE

## RECENT ISSUES

### HUMAN PERFORMANCE (CONT.)

WORK ACTIVITIES GRADUALLY RESTORED

NUCLEAR ASSURANCE CONDUCTED INDEPENDENT ASSESSMENT TO CONFIRM THAT HUMAN PERFORMANCE EXPECTATIONS HAD BEEN CLEARLY COMMUNICATED TO SITE PERSONNEL

LONG TERM ACTIONS DEVELOPED THAT INCLUDE

VICE PRESIDENT, NUCLEAR GENERATION MEETINGS WITH FIRST LINE SUPERVISORS

QUARTERLY HALF-DAY REFRESHER TRAINING ON FUNDAMENTAL PRINCIPLES AND EXPECTATIONS

## RECENT ISSUES

### VENTILATION DAMPER BATTERIES

#### ISSUE

BATTERIES, INSTALLED AS BACKUP POWER SUPPLIES FOR THE CONTROL CIRCUIT FOR THE CONTROL ROOM AND FUEL HANDLING BUILDING VENTILATION SYSTEM MAKEUP AIR DAMPERS, WERE DISCHARGED

#### ACTIONS

NEW BATTERIES INSTALLED AND OPERABILITY RESTORED IN CONTROL ROOM AND FUEL HANDLING BUILDING VENTILATION SYSTEMS

DEVELOPED SURVEILLANCES AND PREVENTIVE MAINTENANCE PROCEDURES FOR THE BATTERIES

REVISED EQUIPMENT CLEARANCE ORDER DATABASE TO PRECLUDE DISCHARGING BATTERIES

INVESTIGATING GENERIC IMPLICATIONS FOR OTHER VENDOR SUPPLIED EQUIPMENT

OPERATIONAL READINESS REVIEWS

OPERATIONAL READINESS ASSESSMENTS

LINE MANAGEMENT ASSESSMENTS - SELF ASSESSMENTS

REVIEWED BY PLANT OPERATIONS REVIEW COMMITTEE AND  
PLANT MANAGER OR OPERATIONAL READINESS REVIEW PANEL

SYSTEM CERTIFICATIONS AND AUGMENTED TESTING

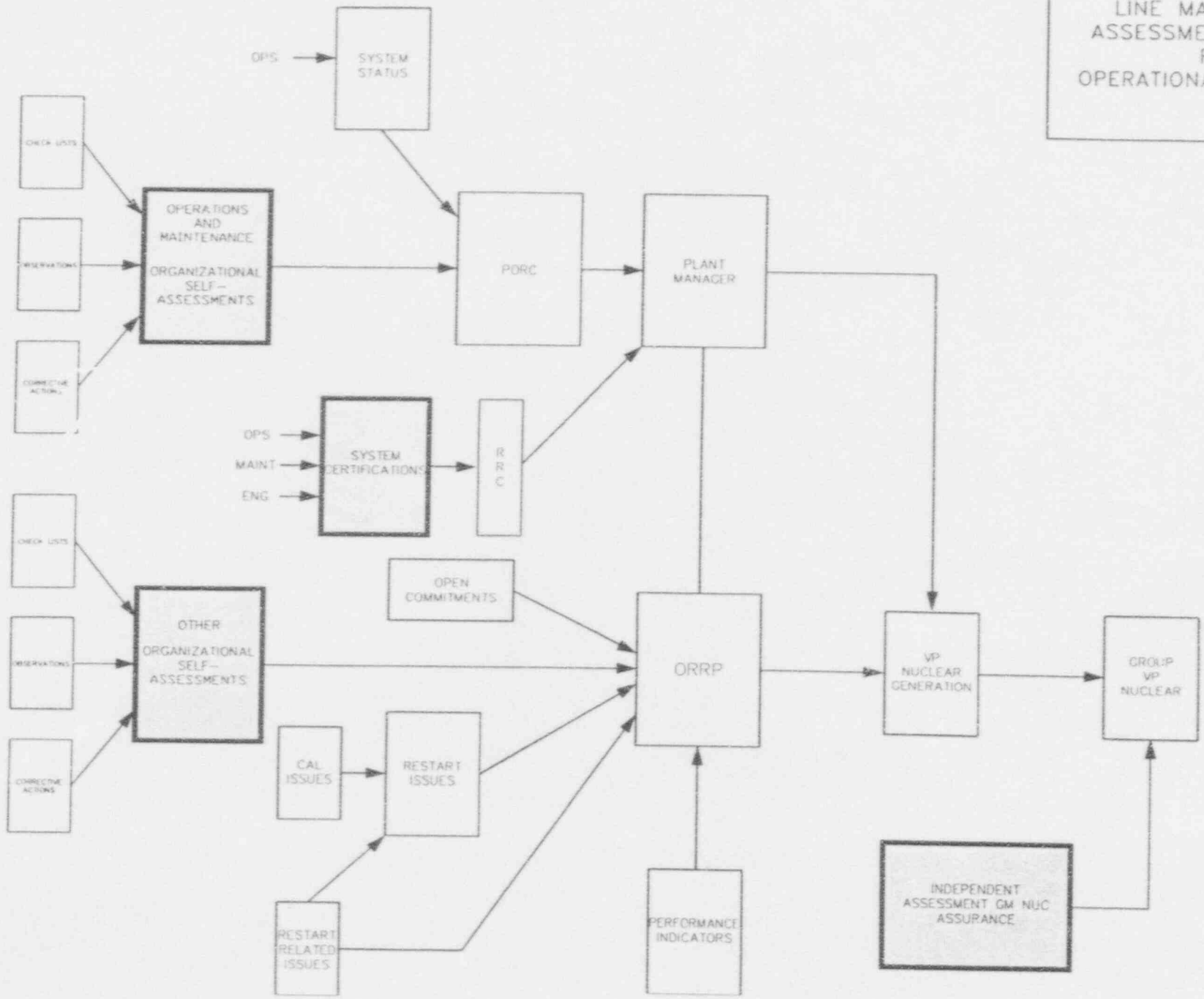
INDEPENDENT ASSESSMENTS

PERFORMED BY NUCLEAR ASSURANCE, INDEPENDENT SAFETY  
ENGINEERING GROUP AND PLANNING & ASSESSMENTS

THIRD PARTY ASSESSMENTS

OPERATIONAL READINESS OVERSIGHT TEAM  
NUCLEAR SAFETY REVIEW BOARD  
INSTITUTE OF NUCLEAR POWER OPERATIONS (INPO)

LINE MANAGEMENT  
ASSESSMENT PROCESS  
FOR  
OPERATIONAL READINESS



LINE MANAGEMENT ASSESSMENTS

OPERATIONAL READINESS REVIEW PANEL REVIEWS

OUTSTANDING RESTART ISSUES  
PERFORMANCE TRENDS (HARDWARE AND HUMAN)  
OUTSTANDING STATION PROBLEM REPORTS  
WORK BACKLOGS  
MANAGEMENT EFFECTIVENESS

READINESS TO PROCEED TO NEXT PLATEAU

PLANT MANAGER AND OPERATIONAL READINESS REVIEW  
PANEL JOINTLY RECOMMEND TO THE VICE PRESIDENT,  
NUCLEAR GENERATION TO PROCEED

VICE PRESIDENT, NUCLEAR GENERATION RECOMMENDS TO THE  
GROUP VICE PRESIDENT, NUCLEAR TO PROCEED

GROUP VICE PRESIDENT, NUCLEAR AUTHORIZES PROCEEDING  
TO NEXT PLATEAU



LINE MANAGEMENT ASSESSMENTS

COMPLETED THROUGH MODE 2 ASSESSMENTS

PROCESS HAS IDENTIFIED ISSUES THAT HAVE BEEN ADDRESSED

DEVELOPING SELF ASSESSMENT/SELF IMPROVEMENT AS A NORMAL  
WAY OF DOING BUSINESS

SYSTEM CERTIFICATION

ADDITIONAL REVIEW OF 61 SYSTEMS/SUBSYSTEMS

TWO PHASE PROCESS

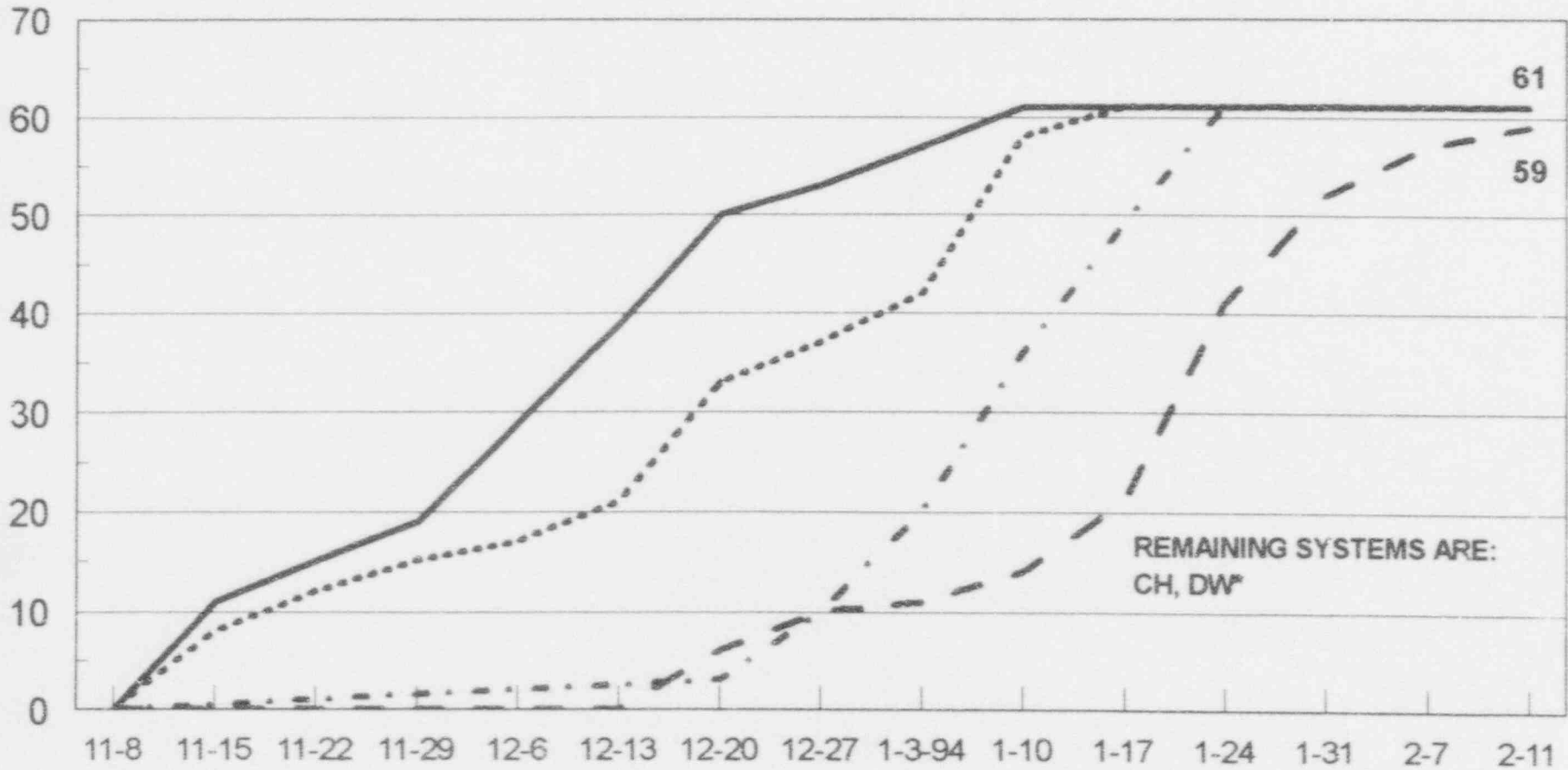
SYSTEM READINESS (PAPER REVIEW)

SYSTEM CERTIFICATION (PHYSICAL WALKDOWNS)

# UNIT 1 SYSTEM CERTIFICATION

Status as of 2-11-94

NO. OF SYSTEMS



REMAINING SYSTEMS ARE:  
CH, DW\*

WALKDOWNS COMPLETE	ACCEPTED BY SS	PLANNED ACCEPTANCE BY PLT MGR	ACTUAL ACCEPTANCE BY PLT MGR
—————	.....	- . - . - .	- - - -

\* DW SYSTEM HAS BEEN SHIFTED TO UNIT 2 SCOPE

AUGMENTED TESTING

TEN SYSTEMS AND SUB SYSTEMS IDENTIFIED FOR ADDITIONAL TESTING TO PROVIDE ADDITIONAL ASSURANCE OF RELIABILITY DURING AND AFTER STARTUP

POWER ASCENSION PLAN TESTS

NON-POWER ASCENSION TESTS

STANDBY DIESEL GENERATOR - COMPLETED

ESSENTIAL CHILLER - COMPLETED

SWITCH YARD AND CONSTRUCTION TRANSFORMER - COMPLETED

AUXILIARY DIESEL LOAD BANK TESTING - COMPLETED

DEMINERALIZED WATER REVERSE OSMOSIS SUBSYSTEM - SCHEDULED

INDEPENDENT ASSESSMENT PROGRAM

29 AREAS SELECTED FOR ASSESSMENT

ASSESS BOTH QUALITY AND PERFORMANCE

REQUIRES GENERAL MANAGER, NUCLEAR ASSURANCE  
RECOMMENDATION TO GROUP VICE PRESIDENT, NUCLEAR FOR  
IDENTIFIED MILESTONES

INDEPENDENT ASSESSMENT PROGRAM STATUS

APPROXIMATELY 40,000 HOURS OF INDEPENDENT ASSESSMENT  
SINCE OCTOBER 1993

ISSUED INDEPENDENT ASSESSMENT RESULTS 13 TIMES

ALL ASSESSMENT RESULTS SUPPORT RESTART

AREAS CLOSED - 11

AREAS SATISFACTORY - 16

AREAS REQUIRING CONTINUED MANAGEMENT ATTENTION - 2

INDEPENDENT ASSESSMENT PROGRAM RESULTS

MAJOR IMPROVEMENTS AND STRENGTHS

PLANT MATERIAL CONDITION

MANAGEMENT INVOLVEMENT

BUSINESS PLAN

CHALLENGES

CONFIGURATION MANAGEMENT

CORRECTIVE ACTION

MANAGEMENT OVERSIGHT

THIRD PARTY REVIEWS

OPERATIONAL READINESS OVERSIGHT TEAM

EXPERIENCED NUCLEAR PROFESSIONALS

PLANT OBSERVATIONS, INTERVIEWS AND DOCUMENT REVIEWS

TEAM SUPPORTS RESTART

NUCLEAR SAFETY REVIEW BOARD

SELF-ASSESSMENT EVALUATION AND ACTIVITY OVERSIGHT

INPO REVIEW/ASSIST VISITS

22 REVIEW/ASSIST VISITS SINCE JANUARY 1993



OVERALL CONCLUSION

THE INDEPENDENT ASSESSMENT AND THIRD PARTY REVIEWS  
SUPPORT READINESS FOR RESTART

NRC OPERATIONAL READINESS ASSESSMENT TEAM

DEFICIENCIES/CORRECTIVE ACTIONS

CONFIGURATION MANAGEMENT

SIMILAR EVENTS REVIEWED FOR CAUSAL FACTORS

MANY OF THE IMPROVEMENTS MADE IN THE LAST YEAR HAVE HAD A FAVORABLE EFFECT ON THE CAUSAL FACTORS; HOWEVER ADDITIONAL FURTHER ACTIONS ARE PROPOSED

REINFORCE KEY EXPECTATIONS WITH SUPERVISORS/WORKERS PRIOR TO MODE 2

ENSURE CLEAR STANDARDS ESTABLISHED AND MONITORED & REINFORCED BY FIRST LINE SUPERVISORS AND MANAGEMENT

INSTILL QUESTIONING ATTITUDE AND ACCOUNTABILITY

TRAINING

REVIEW ACTIONS FOR EFFECTIVENESS

NRC OPERATIONAL READINESS ASSESSMENT TEAM (CONT.)

DEFICIENCIES/CORRECTIVE ACTIONS (CONT.)

MOTOR OPERATED VALVE LEFT IN MANUAL DURING TESTING WAS  
OPENED BY SYSTEM PRESSURE

OTHER POTENTIALLY AFFECTED VALVES IDENTIFIED

EQUIPMENT CLEARANCE ORDER DATABASE UPDATED

OPERATING PROCEDURES REVISED

VALVES LABELED WITH CAUTION

POWER OPERATED RELIEF VALVE TESTED FROM AUXILIARY  
SHUTDOWN PANEL RATHER THAN FROM MAIN CONTROL BOARD

PROCEDURE REVISED

OTHER PROCEDURES REVIEWED

NRC OPERATIONAL READINESS ASSESSMENT TEAM (CONT.)

STRENGTHS

CONTROL ROOM PROFESSIONALISM, QUALIFICATION AND TRAINING

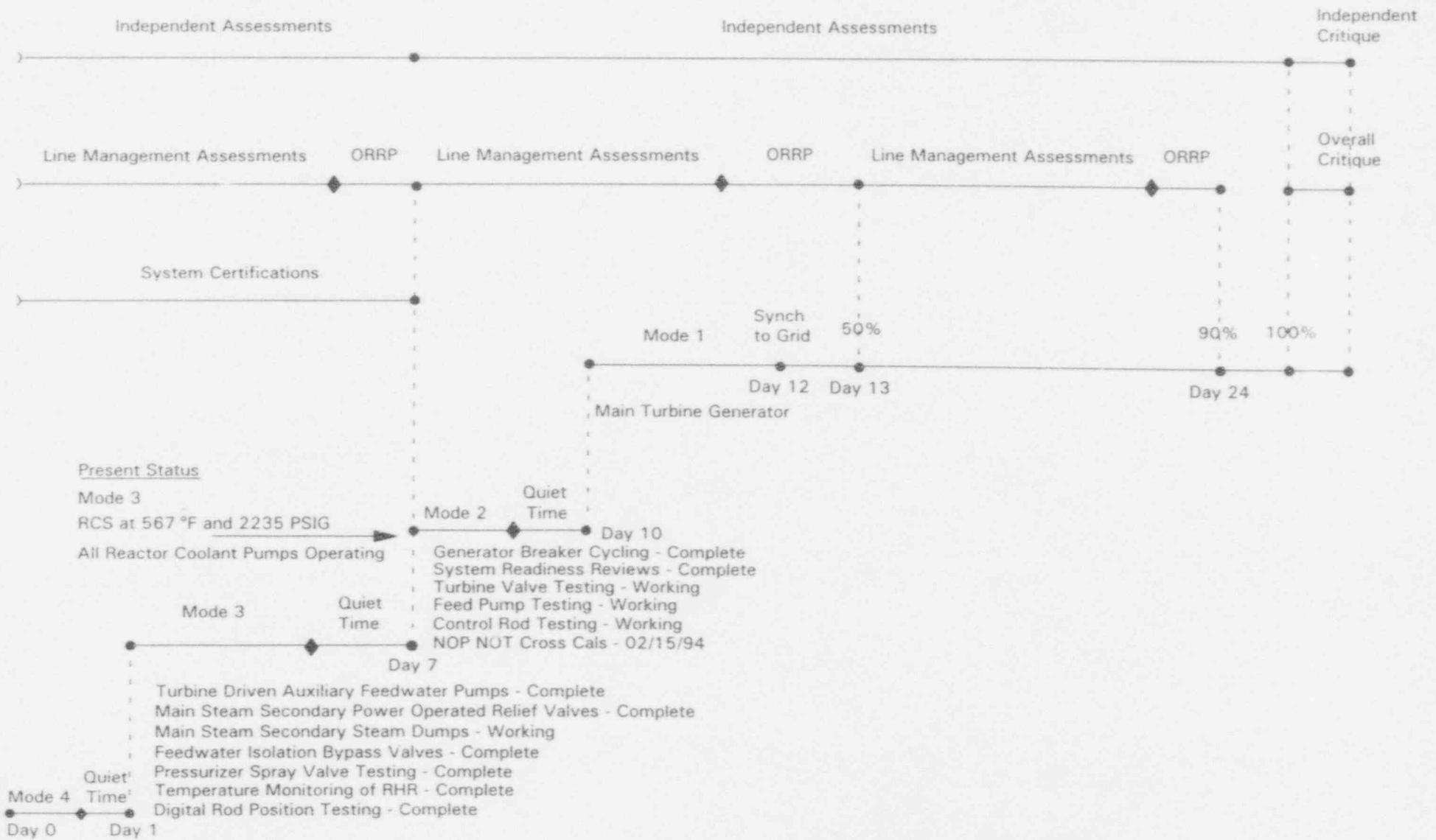
SYSTEM CERTIFICATION

STAFF MORALE AND THEIR WILLINGNESS TO RAISE CONCERNS TO  
MANAGEMENT

INDEPENDENT ASSESSMENT

POWER ASCENSION PLAN

# Power Ascension Schedule



POWER ASCENSION MANAGEMENT CONTROLS

SHIFT SUPERVISOR

RETAINS RESPONSIBILITY FOR SAFE OPERATION OF THE PLANT  
INCLUDING TESTING

SENIOR SHIFT MANAGER / STARTUP DUTY MANAGER

SENIOR PRESENCE DURING POWER ASCENSION  
OVERSIGHT/ADMINISTRATIVE ROLE  
ENSURES SHIFT SUPERVISOR IS NOT OVERBURDENED

SHIFT TEST COORDINATOR

DIRECT REPORT TO SHIFT SUPERVISOR  
COORDINATES TESTING SEQUENCE

POWER ASCENSION MANAGEMENT CONTROLS (CONT.)

PERFORMANCE STANDARDS AND EVALUATION CRITERIA HAVE BEEN DEVELOPED FOR PERFORMING ASSESSMENTS

SYSTEM PERFORMANCE  
MATERIAL CONDITION  
PERSONNEL PERFORMANCE  
ORGANIZATIONAL RESPONSIVENESS  
ADMINISTRATIVE AND WORK CONTROL PROCESS

ASSESSMENTS WILL BE PERFORMED AT SPECIFIED PLATEAUS

PRIOR TO MODE 4 - COMPLETED  
PRIOR TO MODE 2 - COMPLETED  
PRIOR TO 50% POWER  
PRIOR TO FULL POWER

A POST FULL POWER CRITIQUE WILL BE PERFORMED

THIRD PARTY REVIEWS WILL BE PERFORMED DURING POWER ASCENSION



STATUS OF JANUARY 29, 1994 LETTER COMMITMENTS

STATUS OF JANUARY 29, 1994 LETTER COMMITMENTS

COMPLETE TURBINE DRIVEN AUXILIARY FEEDWATER PUMP TESTING  
- COMPLETED IN MODE 3

COMPLETE STANDBY DIESEL GENERATOR ITEMS - COMPLETED  
PHYSICAL WORK; ADMINISTRATIVE ITEMS TO BE COMPLETED BY  
BREAKER CLOSURE PER AGREEMENT WITH REGION IV

COMPLETE FEEDWATER ISOLATION BYPASS VALVE TESTING IN  
MODE 3 - COMPLETED TYPE TESTING

IMPLEMENT ACTION PLAN TO PREVENT CONFIGURATION  
MANAGEMENT DEVIATIONS - ACTION PLAN IS IMPLEMENTED;  
SHORT TERM ACTIONS COMPLETED PRIOR TO MODE 2, LONG TERM  
ACTIONS DEVELOPED AND BEING IMPLEMENTED

STATUS OF JANUARY 29, 1994 LETTER COMMITMENTS (CONT.)

ENSURE MOTOR-OPERATED VALVES IN THE MANUAL MODE DO NOT OPEN UNDER SYSTEM PRESSURE - COMPLETED

DETERMINE IF THE CENTRIFUGAL CHARGING PUMP 1A DISCHARGE BYPASS VALVE OPENING UNDER SYSTEM PRESSURE VIOLATED TECHNICAL SPECIFICATION 3.4.9.3 - COMPLETED; LICENSEE EVENT REPORT TO BE SUBMITTED

COMPLETE TECHNICAL SPECIFICATION 3.4.9.3 ADMINISTRATIVE CONTROLS ENHANCEMENT EVALUATION - COMPLETED

SUBMIT CHILLER POST-MODIFICATION TEST RESULTS TO NRC - COMPLETED

## CONCLUSIONS