April 2, 1999

Duke Energy Corporation
ATTN: Mr. W. R. McCollum
Vice President
Oconee Nuclear Station
P. O. Box 1439
Seneca, SC 29679

SUBJECT: MEETING SUMMARY - OCONEE NUCLEAR STATION (ONS)

Dear Mr. McCollum:

This refers to the meeting conducted by mutual request at the Oconee Nuclear Station on March 24, 1999, to discuss the activities of the NRC management oversight group (MOG), and for you to provide an update to the Oconee Recovery Plan and related plant performance. Enclosures 1 through 3 are a list of meeting attendees, your presentation handout, and an updated Oconee Recovery Plan Issues Checklist, respectively.

During the Oconee plant performance review (PPR) conducted on February 9, 1999, an assessment of Oconee performance by template area was performed. The MOG concluded that Operating Performance was acceptable; however, performance had declined from last period. This decline was reflective of several operator related events resulting from human performance shortcomings and mixed performance in operating programs and processes. Performance related to Operations During Transients remained good. Plant Material Condition generally improved. Human Performance remained consistent with the previous assessments. Despite improved performance in the Engineering Support sub-area, Engineering Design was again evaluated overall as poor. This was directly attributed to a number of major variances from requirements. Performance in the previously unrated area of Engineering Program and Processes was evaluated as adequate. Overall, Problem Identification/Resolution at Oconee improved from poor to adequate. Noteworthy was the improved good performance in Analysis and Resolution of problems. A decline in identification of problems was noted during this assessment. This was due to several missed opportunities in the Engineering area. The results of this assessment as well as the previous Oconee performance assessment by template areas are provided in Enclosure 4.

As a result of this assessment, the Regional Administrator directed termination of MOG activities. Focused inspections will be performed for items remaining from the MOG, which require further NRC review. Items from the Recovery Plan Issues Checklist that will be inspected in the near term were provided to you in the PPR letter dated April 1, 1999. Other items remaining from the Recovery Plan Issues Checklist will be reviewed by future PPRs for inclusion in upcoming inspections.

Remaining open items associated with MOG-sponsored inspection of the emergency feedwater system are presented as Enclosure 5. When your efforts to resolve the problem investigation process (PIP) reports associated with these issues are complete or sufficient progress has been made in your actions to allow inspection of these issues, please inform us.

Enclosure 6 provides a list of existing ONS violations for which specific inspection activities will be conducted. As discussed at the meeting, other existing violations will be closed without an

IE45

IE01

item-by-item verification of your corrective actions. As you are aware, these items could be inspected during future corrective action program reviews. As discussed in the previous paragraph, when you feel that sufficient progress has been made to allow inspection of the violations listed in Enclosure 6, please inform us.

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

Should you have any questions concerning this meeting summary, please contact Mr. C. Ogle at (404) 562-4510.

Sincerely,

(Original signed by)
Charles A. Casto
Deputy Director
Division of Reactor Projects

Docket Nos. 50-269, 50-270, 50-287
License Nos. DPR-38, DPR-47, DPR-55

Enclosures:
1. List of Attendees
2. Licensee Presentation Handout
3. Oconee Recovery Plan Issues Checklist
4. Oconee Rollup 2/9/99
5. EFW System Open Items
6. Violations Requiring Inspection for Closeout

cc w/encls:
J. E. Burchfield
Compliance
Duke Energy Corporation
P. O. Box 1439
Seneca, SC 29679

Lisa F.Vaughn
Legal Department (PB05E)
Duke Energy Corporation
422 South Church Street
Charlotte, NC 28242

Rick N. Edwards
Framatome Technologies
1700 Rockville Pike, Suite 525
Rockville, MD 20852

cc w/encls cont'd: (See page 3)

cc w/encls cont'd:
J. Michael McGarry, III, Esq.
Winston and Strawn
1400 L Street, NW
Washington, D. C. 20005

Mel Fry, Director
Division of Radiation Protection
N. C. Department of Environmental
Health & Natural Resources
3825 Barrett Drive
Raleigh, NC 27609-7721

Virgil R. Autry, Director
Div. of Radioactive Waste Mgmt.
S. C. Department of Health and
Environmental Control
2600 Bull Street
Columbia, SC 29201

County Supervisor of
Oconee County
Walhalla, SC 29621

Manager, LIS
NUS Corporation
2650 McCormick Drive
Clearwater, FL 34619-1035

L. A. Keller, Manager
Nuclear Regulatory Licensing
Duke Energy Corporation
526 S. Church Street
Charlotte, NC 28201-0006

Karen E. Long
Assistant Attorney General
N. C. Department of Justice
P. O. Box 629
Raleigh, NC 27602

Steven P. Shaver
Senior Sales Engineer
Westinghouse Electric Company
5929 Carnegie Boulevard, Suite 500
Charlotte, NC 28209

Distribution w/encls: (See page 4)

Distribution w/encls:
L. Plisco, RII
D. LaBarge, NRR
R. Carroll, RII
H. Berkow, NRR
C. Casto, RII
K. Landis, RII
C. Ogle, RII
NRC Resident Inspector
PUBLIC

OFFICE	RII:DRP	RII:DRP	EIT:DRS				
SIGNATU	RCarroll for						
NAME	RCarroll:	COgle	KLandis				
DATE	3.31.99	4/2					
COPY?	YES	YES	YES	YES	YES	YES	YES

OFFICIAL RECORD COPY.....DOCUMENT NAME:...G:\OCNMS324.WPD

LIST OF ATTENDEES

Nuclear Regulatory Commission

L. Reyes, Regional Administrator, Region II (RII)
B. Mallett, Director, Division of Reactor Safety (DRS), RII
C. Casto, Deputy Director, Division of Reactor Projects (DRP), RII
C. Ogle, Chief, Branch 1, DRP, RII
K. Landis, Chief, Engineering Branch, DRS, RII
M. Scott, Senior Resident Inspector - Oconee Nuclear Station, DRP, RII
D. Billings, Resident Inspector - Oconee Nuclear Station, DRP, RII
S. Freeman, Resident Inspector - Oconee Nuclear Station, DRP, RII
R. Hannah, Public Affairs Officer, RII

Duke Energy Corporation (DEC)

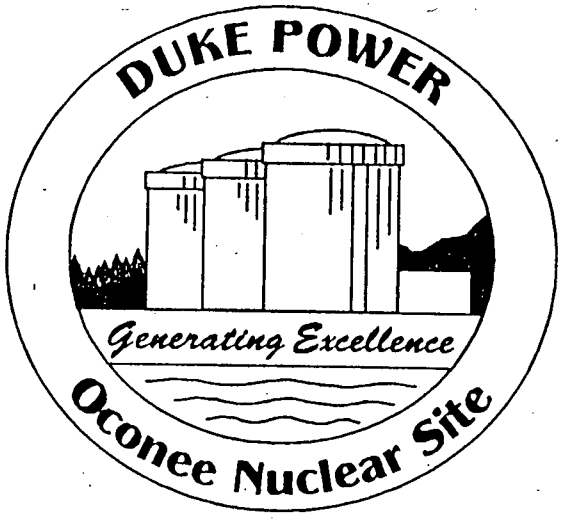
M. Tuckman, Executive Vice President, Nuclear Generation, DEC
W. McCollum, Vice President, Oconee Nuclear Station (ONS)
J. Forbes, Station Manager, ONS
W. Foster, Safety Assurance Manager, ONS
J. Fisicaro, Nuclear Assessments/Issues Department Manager, DEC
M. Nazar, Engineering Manager, ONS
E. Burchfield, Regulatory Compliance Manager, ONS
T. Hartis, Business Manager, ONS
L. Azzarello, Mechanical Systems Engineering Supervisor, ONS
T. Pettit, Customer Relations Manager, DEC
R. Gambrell, Licensing Engineer, ONS
L. Nicholson, Licensing Engineer, ONS
J. Smith, Technical Specialist, ONS
J. Weast, Licensing Engineer, ONS

Others

T. Crego, Reporter, Greenville News

Oconee Nuclear Station

Bi-Monthly Performance Meeting



March 24, 1999

Purpose of Meeting

- Plant Status
- Results of Recovery Plan
- Independent Assessment
- Overview of Performance Improvement Plan
- Closing Remarks

Plant Status

	Current Power Level	Days on Line	1999 Capacity Factor YTD	Next Refueling
Unit 1	100%	210	100.2%	5/1999
Unit 2	100%	21	95.9%	11/1999
Unit 3	100%	80	99.1%	3/2000
Station			98.4%	

Plant Status

- Unit 2 forced outage
  - Repaired steam generator risers
  - Safe outage
  - All outage goals exceeded
- Unit 2 reactor trip
  - Caused by fuse
  - Good operator response
  - Thorough investigation by FIP team

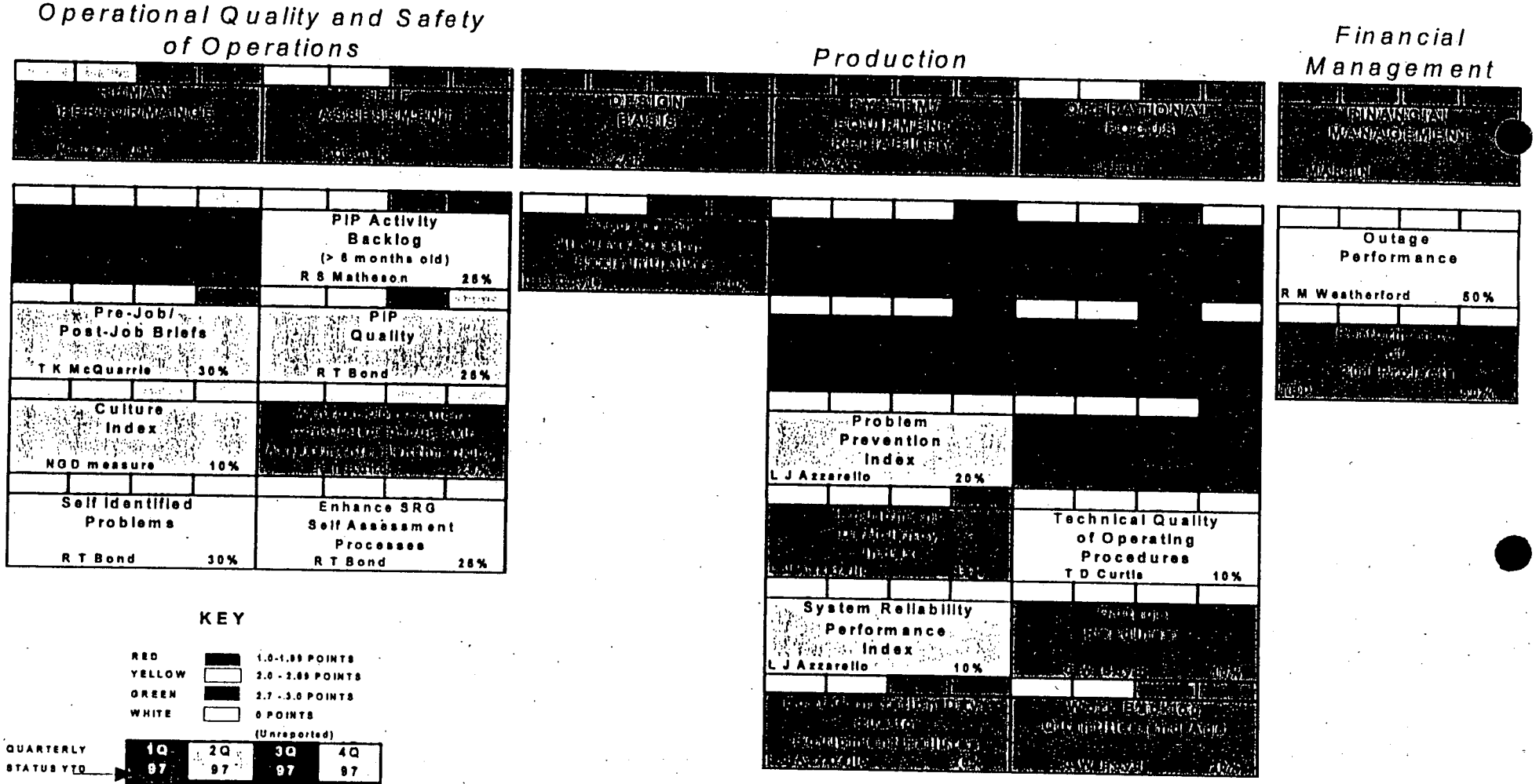
Oconee Recovery Plan

- Initial concept discussed at July 23, 1997 meeting with Region II
- Oconee in mid-1997
  - Too many events
  - Process weaknesses
  - Standards did not keep pace with industry
  - Significant regulatory issues emerging

Results of Recovery Plan

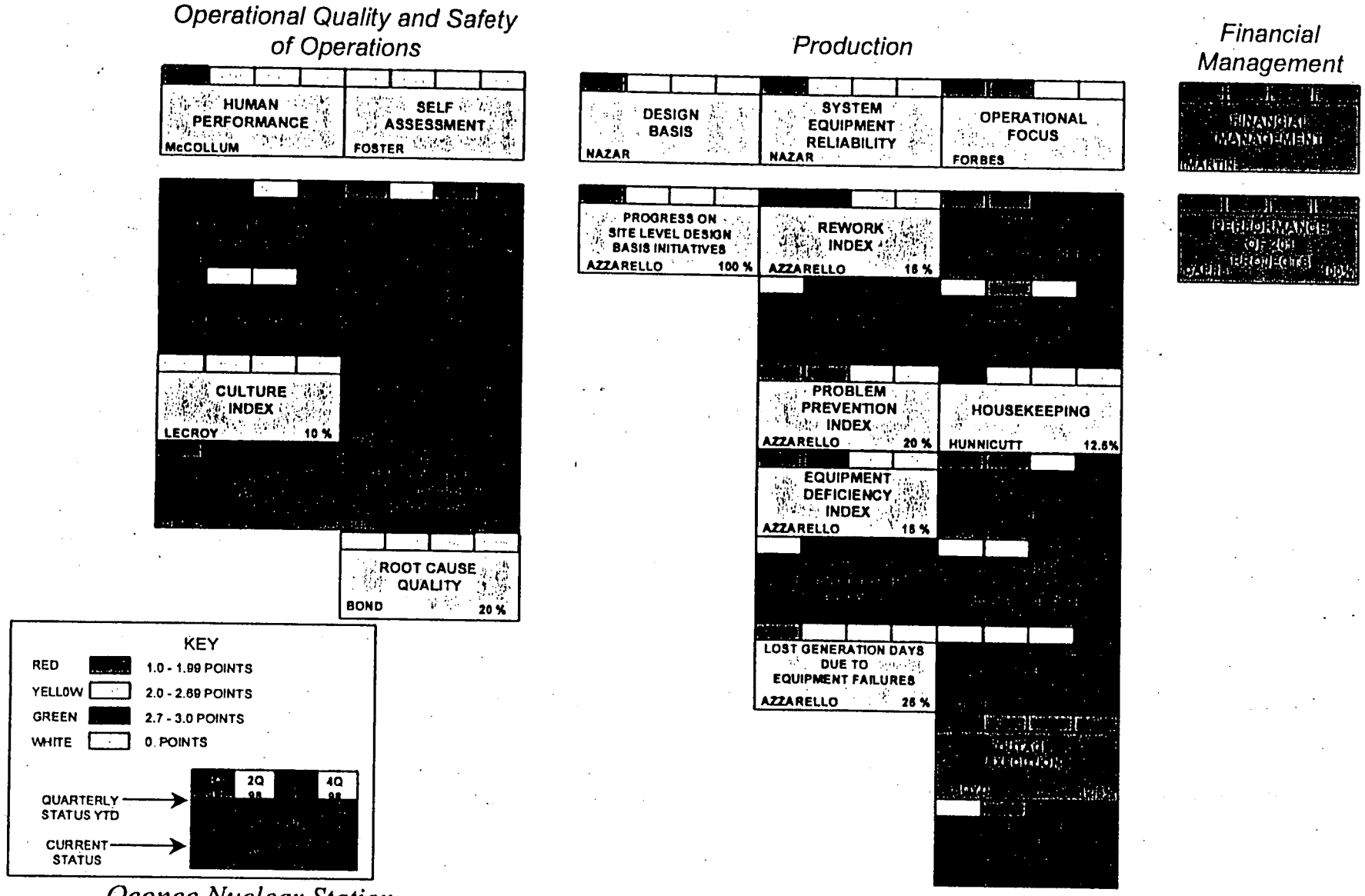
- Strengthened management team
- Structure and processes in place
- Safety culture has improved
- Operational performance has improved
- Design issues being addressed
  - Discovery
  - Resolution
- Performance Improvement Plan will carry momentum forward

December 1997 Recovery Plan Annunciator Panel



Oconee Nuclear Station

December 1998 Recovery Plan Annunciator Panel



Oconee Nuclear Station

Results of Recovery Plan

- Significant reduction in operating events
- Then:
  - Three AITs and one special inspection between 10/96 and 6/97
- Now:
  - Number and nature of operating events reduced
  - Substantial efforts reviewing design basis
  - Step change in performance of operators

Results of Recovery Plan

- Substantial progress in reviewing key safety systems
  - High Pressure Injection
  - Low Pressure Injection
  - Emergency Feedwater
  - Emergency Power

Results of Recovery Plan - Operations Improvements

- Substantial improvements in quality of Operations Procedures
  - All Ops procedures with 5 or more outstanding changes reviewed, revised and re-issued
  - All Ops procedure changes resulting from ITS review completed (3200 items)
  - Enhancement request backlog reduced from 1675 to 264 by year end '98 with 1999 target of 250

Results of Recovery Plan - Operations Improvements

- Control Room Standards Significantly Upgraded
  - Clear expectations through Core Values
  - Physical upgrading of the Control Room
  - Improving Control Room housekeeping standards
  - Stricter Control Room Access controls
  - Hour by hour schedule
  - Peer Checking, Six Tools, Animated STAR, Pre and Post Job Briefs are now habits
  - OAC and ICS replacement
  - Structured benchmarking and follow-up process

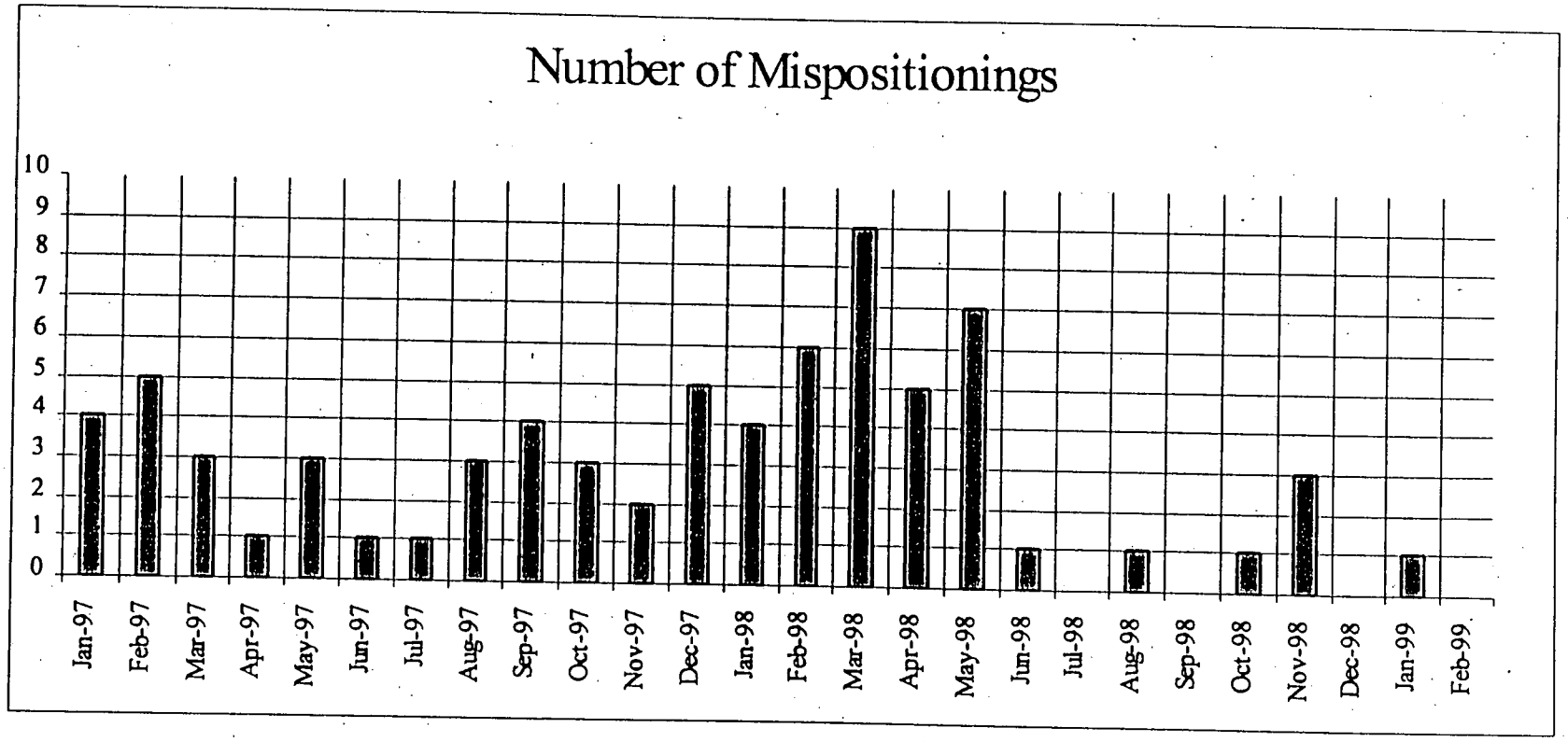
Results of Recovery Plan - Operations Improvement

- Control Room Standards Significantly Upgraded
  - CRIP backlog reduced from 44 to 15
  - Cleared 39 workarounds in 1998
  - Corrective Work Orders reduced from 625 to 337
  - Established Control Room Improvement Team
  - Site wide Housekeeping Upgrade project
  - Increased standards for Operator rounds
  - Supervisor Observation and on the spot coaching

Results of Recovery Plan - Operations Improvement

- Results:
  - Active leadership by operators
  - Improved operator response during trips and transients
  - Reduction in outage delays
  - One procedure induced Control Room LER in 1998
  - Reduction in the number of mispositionings

Results of Recovery Plan - Improved Operator Performance



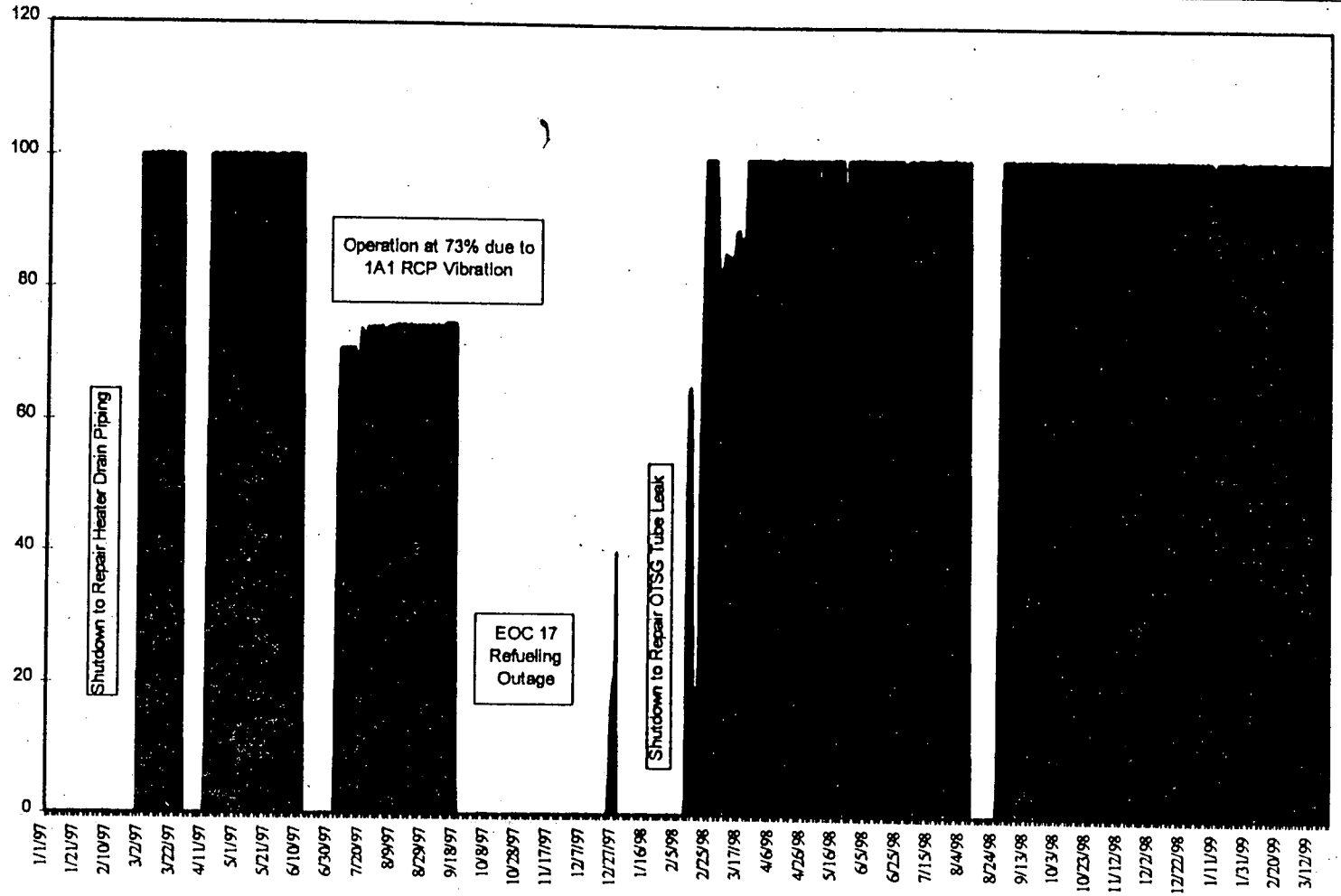
Results of Recovery Plan

- More rigorous processes to address equipment issues
  - TEPR
  - MEPR
  - FIP
  - Plant Concerns list
- Proactive Initiatives
  - Steam Generator Reliability
  - Piping Reliability
  - Equipment Aging
  - Secondary System/Equipment Reliability
  - System Teams

Results of Recovery Plan

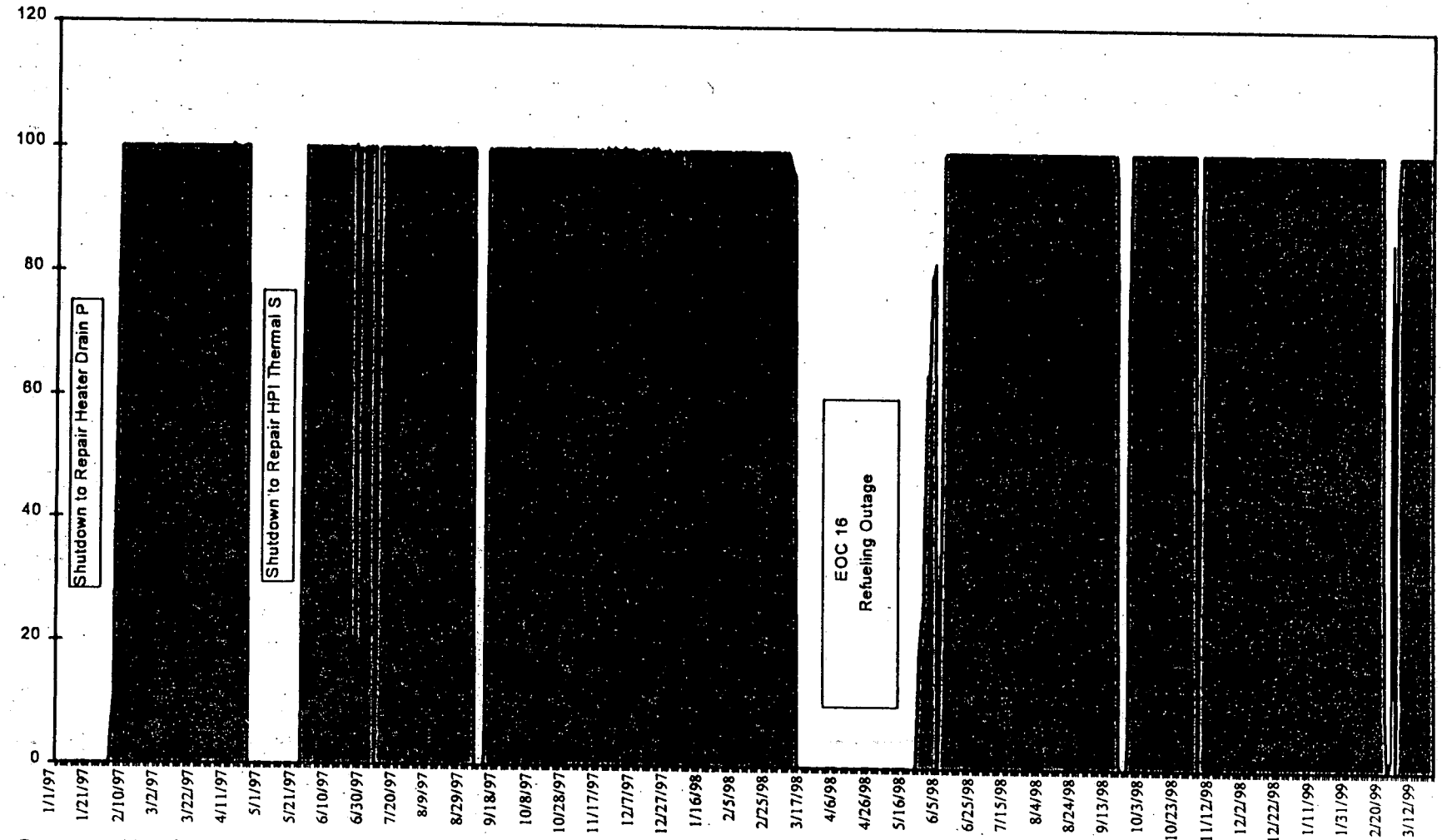
- Major Mods Completed
  - OAC
  - ICS
  - Service Water
- Number and nature of equipment issues improving
  - EFPDs lost due to equipment problems declined from 106 per unit 12/97 to 35 per unit 12/98
  - System Reliability Performance Index increased from 6 year end '97 to 11 year end '98
  - Unplanned capability loss factor decreased from a rolling 12 month average of 32.0% in December 1997 to 6.1% in February 1999
  - Power history curves improving

1997-1999 Unit 1 Power History



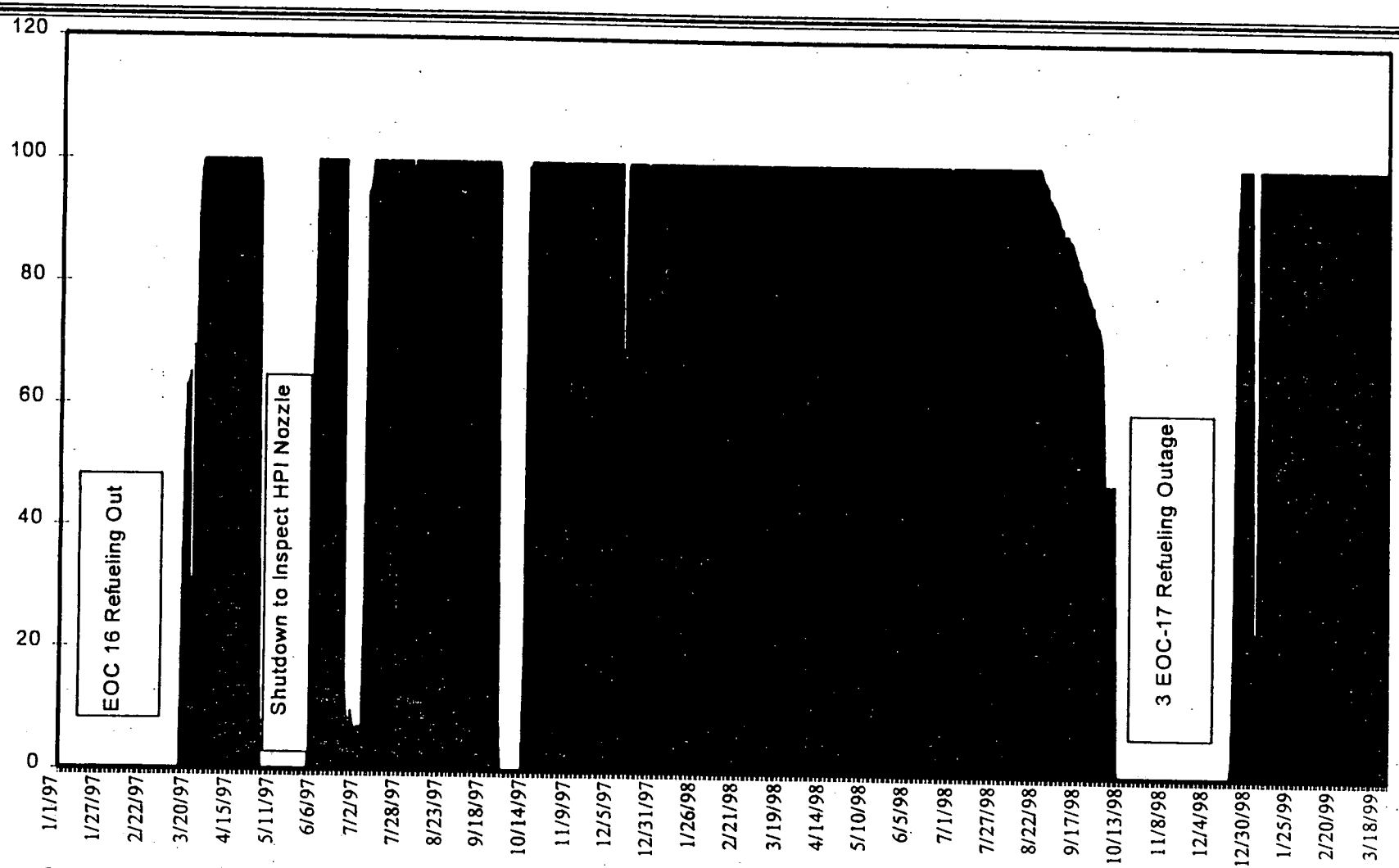
Oconee Nuclear Station

1997-1999 Unit 2 Power History



Oconee Nuclear Station

1997-1999 Unit 3 Power History



Oconee Nuclear Station

Results of Recovery Plan

- Steady progress in corrective action program
  - More self-critical (2846 PIPs in 1996, 4676 PIPs in 1997, 6101 PIPs in 1998)
  - Backlog reduced
    - PIP corrective actions > 6 months old reduced from 512 in August 1997 to 175 in December 1998
    - Management exception corrective actions reduced from 593 in August 1997 to 498 in December 1998
  - Quality improving

Results of Recovery Plan

- Corrective Action Program Focus Areas
  - Backlog Reduction
  - Backlog Prioritization
  - Quality
  - Monitor PIP Generation Threshold and Categorization

Summary

- Recovery Plan laid foundation for further improvement
- Progress in each focus area
- More work remains
- Independent review requested to validate Oconee trends
- Improvement Plan continues to address key areas vital to achieve and sustain high level performance

Purpose

- Requested by ONS Site - Vice President
- Assess progress of recovery plan efforts
  - Determine if sufficient progress has been made to transition to continuous improvement plan (Compare 1997 to 1999)
- Not a complete review of all recovery plan items

Team Composition

- Led by Manager - NAID
- Senior Managers and Specialists
- Independent of ONS
- Multi-Site and General Office Involvement

Areas for Review

- Operations Focus Area
- Design Bases, UFSAR, and Equipment Reliability
- Self Assessment, Corrective Action, Work Management, and Human Performance

Method of Evaluation

- Four areas to address
  - Evaluate extent of progress
  - Evaluate adequate programs and processes in place to support process improvements
  - Change institutionalized
  - Adequate measures and programs in place to move to continuous improvement plan
- Interview, observation, and verification

Summary

1997 Perspective

- Lack of clear direction and vision
- Expectations not clearly communicated
- Lack of Accountability
- Some standard Duke processes had not been implemented
- Self-critical culture lacking
- High number of plant events
- Lack of engineering focus

1999 Perspective

- Exists now and is reinforced
- Communicated and reinforced at most levels
- Accountability significantly improved
- Processes now implemented, used, and producing results
- Improved culture now exists
- Events significantly reduced
- Engineering working on right issues

Progress has been made
Plant realizes continued effort for improvement is necessary
Plant is developing 1999 plan

Recommendations

Identified a number of recommendations (80)

Three Categories :

- Important for success
  - Root cause quality
  - Maintenance Work Control
- Important to help improve process (Heads up)
- Good Ideas

Operations Review

Scope

- Areas selected for review
  - Equipment reliability (operations perspective only) *
  - Housekeeping and material condition
  - Work management process improvements *
  - CRIP management reduction
  - Technical specifications surveillance program
  - Technical quality of operations procedures
  - Operations ownership

* Results reported later in presentation.

Operations Summary

1997 Perspective	1999 Perspective
• Vision and expectations lacking	• Focus and emphasis improved. Reinforcement through APA and shift briefings.
• Outstanding operations enhancement requests high (1675)	• Backlog reduced to 230. Turnaround time considerably reduced. Operators using process. Significantly fewer procedure inadequacies.
• High number of control room indicator	• Reduced to 15 per unit. Focused efforts by Operations to implement CRIP process.
• Control and ownership of T. S. surveillance program lacking	• Established accountability, improved tracking and monitoring.
• Reluctance to take charge and demand results	• Standards in control room significantly upgraded (i.e., traffic and noise reduced, control board monitoring, etc.) Operations leadership evident in work around process. Operations driving resolution to issues.
• Poor housekeeping and material condition	• Upgraded rooms (HPI, LPI, Penetrations, etc.) Significant amount of material taken out of plant. Matcon Team established-reduced deficiencies from 4500 to 2300. Ownership improved.

Operations

Recommendations

- Total for this area - 15
- Sample of recommendations

Engineering Review

Areas for Review

- Equipment Reliability
  - TEPR Program
  - System Team Development
  - Fluid Leak Management
  - Management of Temporary Modification
  - Equipment Aging
  - Secondary System/Component Reliability
  - Piping Reliability
  - Engineering Support Program

- Design Bases
  - Safety system reviews
  - Improved technical specifications
  - UFSAR review project
  - Configuration management

Engineering Review

Design Bases, UFSAR, Equipment Reliability

1997 Perspective

- Unclear direction and expectations
  - Engineering priorities not aligned with customers
  - Lack of accountability and follow-up
- Engineering work management poor
- Equipment reliability lacked focus

1999 Perspective

- Engineering direction and focus clear
  - Development of leadership model. Daily tracking and monitoring of issues and projects. Accountability is reinforced. Customers satisfied with support/products.
- Work management tool developed.
  - Organization understands priorities. Improved focus and follow-up.
- Process (TEPR) implemented.
  - Some long standing issues resolved. Remaining items requiring action tracked and prioritized. Organization using processes.

Engineering Review (Continued)

Design Bases, UFSAR, Equipment Reliability

1997 Perspective

- Many processes/tools not implemented
- Safety System Reviewed
- UFSAR Review Project

1999 Perspective

- Duke standard processes implemented. (i.e.,Nuclear Excellence Team, Design Review Board, Daily Focus Meetings, TEPR, Configuration Management, etc.) Program institutionalized. Organization using tools/ processes.
- A number of reviews completed (HPI, LPI). Process laid out to schedule future systems.
- Initial effort complete. Follow up on project.

Engineering Review

Engineering Recommendations

- Total for this area - 29
- Sample of recommendations

Safety Culture / Work Process Review

Areas for Review

- Human Performance
- Self Assessment
  - Manager Observation/Group Assessment Effectiveness and Benchmarking
  - Enhances SRG Self-Assessment
- Corrective Action Program (CAP)
  - PIP Quality
  - PIP Backlog
  - Root Cause Quality

  Note: Didn't look at entire CAP because of recent assessment
- Work Management

Human Performance

1997 Perspective

- Several significant human performance related events
- Organization had not implemented the Duke standard human error reduction techniques

1999 Perspective

- ONS implemented numerous initiatives to improve human performance (i.e., six tools, manager observation program, etc.)
- Human performance related events have declined
  * Human error site wide PIPs are down
  * Component mispositionings are lower
- Direct observation of job briefings and workers indicate positive use of six tools
- Programs have been institutionalized

Human Performance

Recommendations

- Total for this area - 2
- Sample of recommendations

Self Assessment (INOT)

1997 Perspective

- SRG Oversight was not at required levels
- SRG not finding issues, as required
- Overall, not a good self critical culture

1999 Perspective

- Independent Nuclear Oversight Team (INOT) implemented
- Personnel rotated through group INOT continues to improve
- Recently, two (2) good assessments were done by INOT (i.e., corrective action program, ITS)
- This is an improving area
- Continued management focus in this area will ensure that we continue to improve process
- The concept of having a self critical culture continues to improve at Oconee

Self Assessment

1997 Perspective

- The number of manager observations, group self assessments, and benchmarking were low
- Inwardly focused
- Lack of self assessment culture

1999 Perspective

- Processes were implemented
- A high number of manager observations performed. Many were of good value
- Group self assessments increased considerably
- Benchmarking was performed
- Many actions were initiated as a result of the above reviews
- Self assessment culture is emerging as a standard ONS concept

Self Assessment

Total for this area -14

Sample of recommendations

Corrective Action Program

1997 Perspective

- PIP quality low
- PIP backlog high (350)
- Root causes needed work
- Identification low (2000)

1999 Perspective

- PIP quality improved
  SRG rejection rate lowered 30% to 10%
- Backlog reduced to 175
- Number of root causes increased
  Quality of root causes improved. Still need work
- Rate now 6000+
- New processes implemented to improve management focus (i.e., corrective action review board and corrective action review team)

Corrective Action

Recommendations

- Total for this area - 10
- Sample of recommendations

Work Management

1997 Perspective

- Not implemented in accordance with Duke process
- Work items not scheduled
- Changing priorities
- Backlog high

1999 Perspective

- Implemented standard WCQIP process
- Control room has been freed of traffic and noise
- Scheduling/Planning from T-2 to T-0 window is in need of work
- Process has been institutionalized
- The organization is not using the PIP process to learn from improvement areas
- Backlogs have been reduced significantly

Work Management

- Recommendations
  - Total for this area -10
  - Sample of recommendations

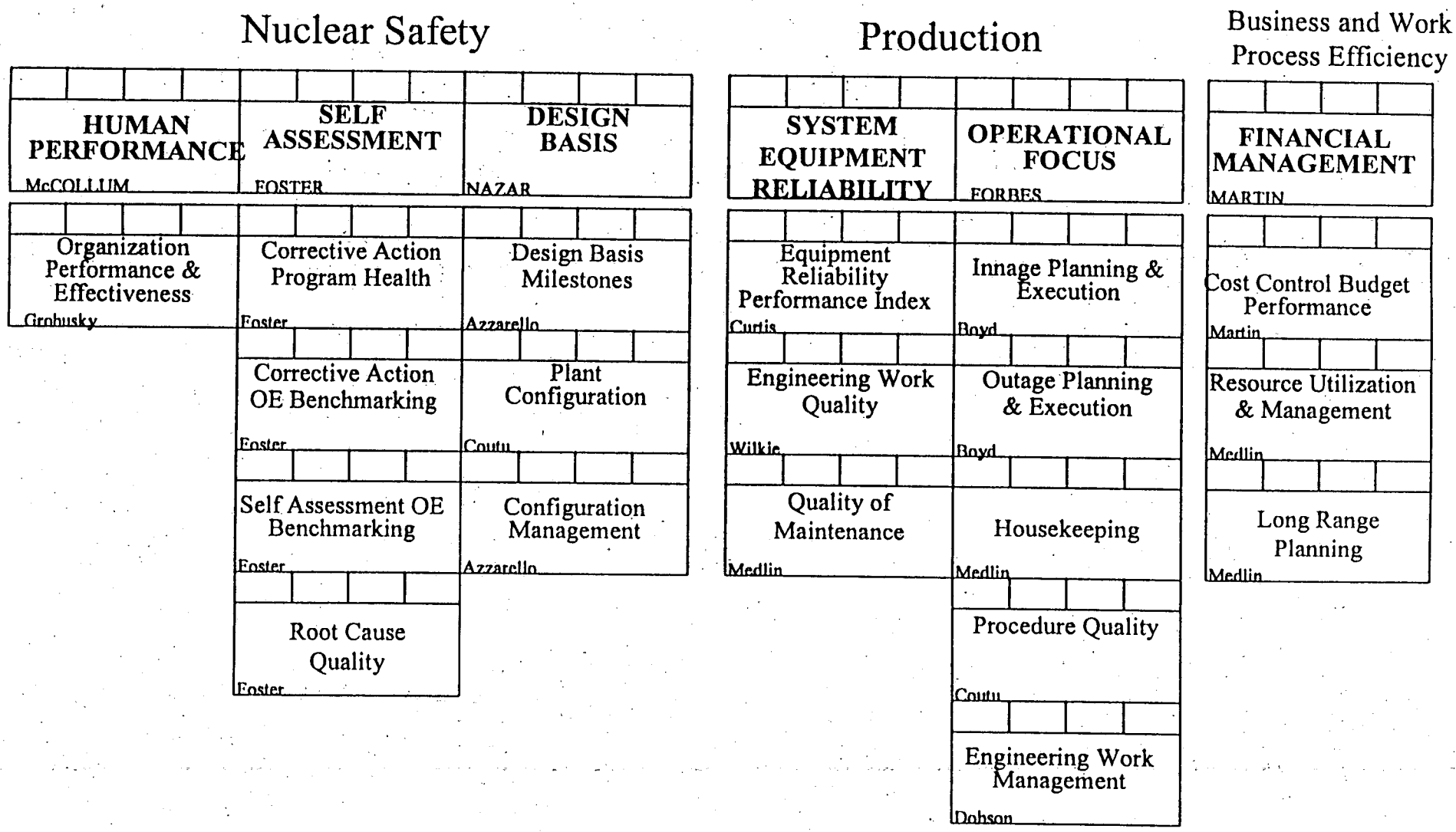
Conclusions of Review

- Significant progress made
- Generally completed recovery plan items
- Staff generally knew problem areas
- In process of documenting plan for 1999
- Staff open to input/feedback (learning organization)
- Continued effort is necessary
- Evidence supports moving to continuous improvement plan

1999 Improvement Plan

- Focus areas consistent with Recovery Plan
- Key is effectiveness of implementation
  - Accountability
  - Focus on execution
  - Enforcing standards

ONS Improvement Plan Focus Areas for 1999



Oconee Nuclear Station

OCONEE NUCLEAR SITE PERFORMANCE MEASURES
February 1999

Indicators of Success

- Top Quartile in Nuclear Safety measured by NRC SALP & INPO Rating
- Top Quartile in Capacity Factor & On Peak Availability
- Top 10 in Production Cost
- Top Decile in Industrial Safety

NGD OBJECTIVES

Nuclear Safety

NRC MEASURE (FOSTER) 1

INPO RATING (COSTELLO) 2

PERFORMANCE INDICATOR INDEX (COSTELLO) 3

NUCLEAR SAFETY INDEX (COSTELLO) 4

REACTOR CORE SAFETY (FORBES) 8

HUMAN PERFORMANCE INDEX (FOSTER) 10

CONFIGURATION MANAGEMENT (NAZAR) 11

SELF ASSESSMENT PROGRAM (FOSTER) 12

Production

Business and Work Process Efficiency

OPERATING COST PER NET KWh ($) (MARTIN) 16

OPERATING BUDGET (MARTIN) 17

CAPITAL BUDGET (MARTIN) 18

PROJECT MANAGEMENT (MARTIN) 20

SYSTEM OUTAGE PLACEMENT EFFICIENCY (BOYD) 21

DUKE-ENERGY EARNINGS PER SHARE ($) (MARTIN) PG

DUKE POWER EBIT ($) (MARTIN) PG

KEY

RED — Not meeting expectations

YELLOW — Needs Improvement

GREEN — Meeting Expectations

WHITE — Currently Unsupported

QUARTERLY STATUS YTD → 2Q99 3Q99 4Q99

CURRENT STATUS →

$ REPRESENTS SITE INCENTIVE GOAL

OCONEE IMPROVEMENT FOCUS AREAS

HUMAN PERFORMANCE (MCCOLLUM)

SELF ASSESSMENT (FOSTER)

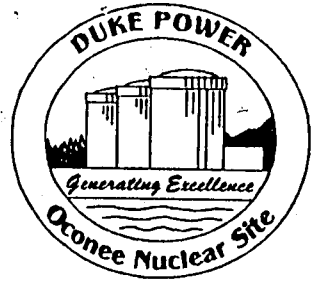
DESIGN BASIS (NAZAR)

SYSTEM / EQUIPMENT RELIABILITY (NAZAR)

OPERATIONAL FOCUS (FORBES)

FINANCIAL MANAGEMENT (MARTIN)

Oconee Nuclear Station



Closing Remarks

OCONEE RECOVERY PLAN
ISSUES CHECKLIST

[Status: 30 of 44 "Essential to Recovery" items have been closed; 14 remain open, with NRC1 (EOPs) having the longest lead time of 9/99]

Area	Action	NRC Lead	Licensee Status	NRC Inspection/Action (Date/IR/Results)	NRC Status
LICENSEE RECOVERY PLAN ACTIONS					
Design Basis					
[DB1]	HPI System Review	Landis	Complete	7/6-10/98; 98-07 (Rogers); A-2B, 4B, 5C 11/2-6/98; 98-10 (Thomas); A-4A, 4B, 5C	Closed
[DB2]	SITA HPI/LPI System Review	Landis	Projected completion 12/11/97 - 12/31/98	7/13-17/98; 98-06 (Thomas); E-5A, P-5B 11/30 - 12/11/98; 98-11(Thomas); G-4B, 5C	Closed

[DB3] N9702	Oconee Safety Related Designation Clarification (OSRDC)	Landis (NRR-Any licensing issues)	Projected completion-5/15/98-1/99	7/27-31/98; 98-08 (Schin, Thomas): A-5C,4A 8/24-9/4/98; 98-08 (Schin, Thomas): P-4C & G-4C	Open
[DB4] N9705	Resolve ECCW Suction Supply to LPSW (OSW)	Landis	Projected completion 6/1/98 6/1/99	98-08(Kellogg): E-2B 98-08: P-2B & A-5A,5B,5C 11/2-6 & 16-20/98: 98-10 (Thomas): G-3A,4B	Closed
[DB5] N9706	UFSAR Review Project	Landis	Projected completion-12/31/98-6/30/99	10/5-9/98; 98-09 (Schin, Thomas): P-4A,4C,5A 4/19-23/99(Schin) 6/7-11/99 (Schin)	Open
[DB6] N9707	SQUG Outlier Resolution Review	Landis	Projected completion 6/30/98-2002	8/31-9/4/98; 98-08 (Chou): G-4B,5B,5C & P-2A,5A	Closed

[DB7] N9701 N9703	Emergency Power Project	Christnot	5/1/99	98-07: E-4A,4C,5A,5C 98-08: E-4B & G-4B,5B,5C	Closed
[DB8] N9707	GL 96-06 Review (non-licensing issues)	Landis	Projected completion 7/10/98-UB0C18	7/13-17/98; 98-07 (Moore): G-4B 98-08: A-4B,5A,5C & G-1A,3B 10/5-9/98; 98-09 (Moore): A-4A	Closed
[DB9] N9801	EFW SSEI	Landis	Complete Action Plan 30 days after report entered into PIP	8/24-9/4/98; 98-08 (Schin): P-4A,5A 98-09 (Schin, Thomas): P-4A,5A	Open
[DB10] N9811	Configuration Management Project	Landis	Projected completion 12/31/98	9/14-18/98; 98-09 (Schin, Thomas); No Assessment 11/30 - 12/11/98; 98-11 (Thomas): P-4A,4C,5C 2/1-5/99 (Thomas), 2/22-26/99(Smith): P-4C,5C	Open

System Equipment					
[SE1] N9712	Material Condition Upgrade	Scott	10/99	98-06; G-2A,2B,3A 98-07; G-2A,3C 98-11; G-2A,2B 99-01; A-2A (closure pending)	Closed (P)
[SE2] N9714	Control Rod Drive Mechanism Replacement	Billings	U3EOC19	98-06; G-4B,5B 98-09; A-4B,5B 99-02 (Proposed)	Open
[SE3] N9715	Top Equipment Problem Resolution Process (TEPR)	Freeman	Ongoing	98-10; G-2A,2B,5C	Closed
[SE4] N9716	System Team Development	Landis	Complete	10/5-9/98; 98-09 (Moore, Thomas); A-4B	Closed
[SE5] N9717	Fluid Leak Management Program	Freeman	Projected completion 11/1/98	98-09; A-2B	Closed
[SE6] N9719	Temporary Modifications	Landis	Projected completion 4/15/99	10/5-9/98; 98-09 (Schinn, Thomas); G-4B,4C	Closed
[SE7] N9726	GRIP Management and Reduction	Billings	9/1/98	98-09; G-1A,2B,3C	Closed

[SE8] T9722	Inservice Inspection Program Assessment (includes temporary defense D)	Fredrickson		98-05; A-2B (HP1) 98-05; G-2B (OTSG) 98-07 (Girard) G-6C (AUG ISI) 8/17-21/98; 98-08 (Blake); G-2B (OTSG) 10/26-30/98; 98-10 (Blake); A-2B,3A (ISI) 11/9-10/98; 98-10 (Blake); G-2B,3A (OTSG)	Closed
[SE9] T9722	Secondary System Component Reliability	Landis	Complete	10/5-9/98; 98-09 (Schin, Thomas); G-2C,4B	Closed
Human Performance					
[P1] T9720	Human Performance Measures and Organization Direction (ORP)	Scott	12/31/98	98-06; G-1A,3B & A-2B,3A 98-10; P-1A,3A (Proposed) 98-11; P-3A,3B,3C 99-03 (proposed)	Open

Self-Assessment					
[SA1] N9730	PIP Activity Backlog	Landis	12/31/98	8/24-9/4/98; 98-08 (Schin, Thomas); P-5C 11/30 - 12/11/98; management exception items: 98-11 (Schin, Thomas); P-4B,5C 2/1-5/99; 3/8-12/99 (Girard); 99-01; P-4B,5C-NCV 99-02 Proposed	Open
[SA2] N9732	PIP Quality Improvements	Landis	Complete	8/24-9/4/98; 98-08 (Schin, Thomas); G-5A,5B & A-5B,5C 11/30-12/11/98; 98-11 (Moore, Schin, Thomas); P-5C 3/8-12; 99-02 (Girard); P-5B,5C proposed	Open

[SA3] N9731	Manager Observations and Group Self-Assessment	Landis	12/31/98	11/30-12/11/98; 98-11 (Schin, Thomas); A-5A	Open
[SA4] N9735	Inplant Review/SRG Job Observation Program	Landis	12/31/98	98-08; A-5A 11/30 - 12/11/98; 98-11 (Thomas); A-5A	Closed
Operational Focus					
[OF1] N9740	Root Cause Analysis and Corrective Action for Operational (Misposition) Related Events	Billings	12/31/98	98-06; G-5B,5C,4B & P-5B 98-11; P-1C,3C,5C 99-02 proposed	Open
[OF2] N9845	Technical Quality of Operating Procedures	Scott	Projected completion-12/1/98	99-01; A-1C (proposed closure) 12	Closed (P)
[OF3] N9741	Response to Operational Concerns	Billings	Projected completion-10/01/98	98-06; A-3B,1C 98-09; G-1A,3C	Closed
[OF4] N9745	Risk Assessment	Freeman	Projected completion-10/01/98	98-11; A-2B	Closed

[OF5] [illegible]	Work Backlog Management	Fredrickson	Projected completion 10/1/98	11/2 6/98 98-10 (Gibbs); G-2B	Closed
[OF6] [illegible]	Outage Readiness	Fredrickson	Projected completion 11/1/98	11/2 6/98 98-10 (Gibbs); G-2B	Closed
Temporary Defense					
[TD1] [illegible]	A 1 Management oversight observation	Freeman	Complete	98-06 G-1A 3A 3C 98-10 G-3C 5C	Closed
[TD2] [illegible]	A 2 Management oversight during startup/shutdown	Freeman	Complete	98-06 G-1A 5C	Closed
[TD3] [illegible]	A 3 Inventory Monitoring Enhancements	Freeman	Complete	98-06 G-1A 5C	Closed
[TD4] [illegible]	B Eng/Ops/Maint Interface	Landis/ Fredrickson	Complete	10/5 9/98 98-09 (Moore); G-4B	Closed
[TD5] [illegible]	C Improved Trouble-Shooting	Freeman	Complete	98-11 A-2B 99-01 A-2B (Closure proposed	Closed (P)

[TD6]	E. Post Maint/Mod & Testing	Landis/ Fredrickson	Projected completion 2/99	10/5-9/98 98-09 (Moore) P-4B G-2B 5A 3/8-12/99 (Thomas Girard) 99-02 A-5B 5C (proposed closure)	Closed (P)
[TD7]	F. Chemistry/Ops Interface	Christnot	Complete	98-07 G-1A 5C P-5C E-1C 5C	Closed

NRC AREAS OF CONCERN

[NRC1] Operational Focus	Emergency Operating Procedures	Landis	8/99	9/99; (Rogers, Schin, Hopper) Proposed	Open
[NRC2] Problem ID and Resolution	Safety Assessment & Quality Verification (including OEF)	Christnot		98-09 G-1C 4C (OEF) 99-01 A-4B 5A 5B 5C (closure proposed)	Closed (P)

[NRC3] Design Basis/Tech Support	CREV SSEI	Landis		98-03 (Poor) 8/24-9/4/98; 98-08; G-5C,4B 10/5-9/98; 98-09 (Shin); G-2B,4B 99-02; (Thomas) proposed	Open
[NRC4] Design Basis/Tech Support	Emergency Electrical Distribution System Review (TAC A0886, A0887, A0888)	NRR		Final Report Issued 1/19/99	Closed
[NRC5] Equipment	Containment Coatings	Landis		10/14/98; 98-09 (Lenahan); G-4A,5B 11/16-20/98; 98-10 (Lenahan); P-2B 6/99 (U1RFO); (Lenahan) proposed	Open
[NRC6] Equipment	Keowee LV Breaker Mods/Replacement	Christnot		98-10; G-4A,4B,4C	Closed
[NRC7] Human Performance	Maintenance Procedures (Adequacy and Compliance)	Christnot		98-10; P-2B 99-02 (Proposed)	Open

Issues Not Essential for Recovery					
	98-01 Pzr & Letdown welds	NRR			
	98-GO-001 VT-3 exam req	NRR		Closed 10/1/98	Closed
	98-GO-002 Bolting torque	NRR			
	98-GO-003 Alt to exam of concrete containment	NRR		Closed 10/1/98	Closed
	Fatigue Analysis	NRR			
	Operating Experience Program	Christnot		98-09 (Proposed)	Closed
	Operational Safeguards Response Evaluation (OSRE)	Landis			
	Severe Accident Management Guidelines (SAMGs)	Billings		97-18	Closed
	OAC Replacement Project	Freeman		98-06	Closed
	ONS Equipment Aging Project	Julian		(Proposed review under licensee renewal)	Open

	Integrated Control System Replacement	Freeman		98-06	Closed
Other NRR Actions (Not Essential for Recovery)					
	SQUG (Outliers monitored under licensee's program)	NRR			
	ITS	NRR			
	HPI Amendment	NRR			
	CREV (TIA)	Landis			
	Service Water Amendment	NRR		NRC letter dated 4/24/98 (TAC M99487, M99488, M99489)	Closed
	MSL Break Detection (BL 80-04)	NRR			

OCONEE ROLLUP 2/9/99

Y	R	Y	Y	R	R	R	Y
OPERATING PERFORMANCE	MATERIAL CONDITION		HUMAN PERFORMANCE	ENGINEERING DESIGN		PROBLEM IDENTIFICATION/ RESOLUTION	

Y	R	Y	Y	R	R	[redacted]	Y
Normal Operations	Equipment Conditions		Work Performance	Design		Identification	
[redacted]	R	Y	Y	[redacted]	R	[redacted]	Y
	Program and Processes		[redacted]		[redacted]		[redacted]
[redacted]	N	[redacted]	N	Y	[redacted]	R	[redacted]
Program and Processes			[redacted]	Program and Processes		[redacted]	

Enclosure 1

Enclosure 4

EFW SYSTEM OPEN ITEMS

ITEM NUMBER	TYPE	DESCRIPTION
50-269,270,287/98-09-02	VIO	No QA Records to Assure the Ability of EFW Pumps to Operate at Runout
50-269,270,287/98-15-01	VIO	Failure to Update the UFSAR
50-269,270,287/98-15-02	EEI	Inadequate 10 CFR 50.59 Safety Evaluations
50-269,270,287/98-15-03	EEI	Emergency Procedure Not Adequate to Mitigate Secondary Pipe Break Events
50-269,270,287/99-10-01	URI	EFW System was Designed to Fail During a Main Feedwater Line Break or Non-Seismic Pipe Break
50-269,270,287/99-10-02	URI	10 CFR 50.59 Evaluations Incorrectly Implemented the EFW Licensing Basis
50-269,270,287/99-10-03	IFI	Testing HPI Pumps when Powered From ASW Switchgear
50-269,270,287/99-10-04	IFI	EOP Steps Not Written Clearly or in a Consistent Format
50-269,270,287/99-10-05	IFI	Ability to Throttle EFW Within Three Minutes
50-269,270,287/99-10-06	IFI	Licensing Basis Revision to Credit Main Steam Line Break Protection Circuit for Protection of the TD EFW Pump From Insufficient NPSH
50-269,270,287/99-02-XX*	IFI	Procedure AP/0/A/1700/25 Guidance for Establishing Flow to the RCP Seals and to a Dry OTSG from the SSF

* Proposed

VIOLATIONS REQUIRING INSPECTION FOR CLOSEOUT

ITEM NUMBER	DESCRIPTION
EA 97-298-01012	Failure to Adhere to the TS Operability Requirements for the Unit 3 High Pressure Injection System
50-269,270,287/98-03-01	Untimely Reporting of Design Issues (denied violation)
EA 98-199-01014	USQ Involving Single Failure Introduced by a 1984 Control Room Ventilation System Modification
50-269,270,287/98-08-02	Inadequate 50.59 Safety Evaluation for 1996 UFSAR Revision Related to ECCS Pumps' NPSH Analysis
50-287/98-10-06	Failure to Provide Separation of Redundant Safety-Related Cables Inside Enclosures
EA 98-268-01012	Failure to Meet Technical Specifications and 10 CFR 50.46 for Long Term Cooling
50-269,270,287/98-15-01	Failure to Update the UFSAR