

June 11, 1998

MEMORANDUM TO: File

FROM: Charles A. Casto, Deputy Director  
Division of Reactor Projects

**ORIGINAL SIGNED BY  
CHARLES A. CASTO**

SUBJECT: MINUTES OF OCONEE MANAGEMENT OVERSIGHT GROUP (MOG) SECOND  
MEETING, MAY 1998

In accordance with memorandum from Luis A. Reyes, dated April 13, 1998, Subject: Oconee Management Oversight Group Charter, a Management Oversight Group (MOG) was assigned for oversight of operations at Oconee. The MOG met at the Region II office first on April 14, 1998. On May 14, 1998, the second meeting was held.

The following personnel attended the meeting:

Panel Members - Charles A. Casto, Region II, Chairman  
Herbert N. Berkow, NRR, Vice Chairman  
David E. LaBarge, NRR, Senior Project Manager  
Charles R. Ogle, Region II, DRP, Branch Chief  
Michael A. Scott, Oconee SRI

Others - McKenzie Thomas, Senior Reactor Inspector  
Danny Billings, Resident Inspector  
Scott Freeman, Resident Inspector

The following summarizes the actions taken by the MOG:

1. An exit strategy (Attachment 1) for the MOG was presented by the Branch Chief. This strategy was accepted after some modifications. This strategy provides the criteria for recommending a plant assessment be conducted and presented to the Regional Administrator.
2. An action item from the last meeting to develop inspection metrics was completed. An inspection criteria memo (Attachment 2) was sent to all inspectors. This process will assure the Plant Issues Matrix is consistent with Manual Chapter 0610 and provides continuous assessment of licensee performance.
3. The open items list was reviewed to determine what items would provide the MOG with insights into licensee performance. Generally, the MOG agreed that most LERs, unresolved items, and some inspector followup items would be labeled as essential for MOG assessment. These items would need to be successfully resolved before a MOG exit recommendation would be made. This list would be shared with the licensee at the upcoming bimonthly meeting.

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4. Some changes to the issues checklist were made (Attachment 3). The item on operations procedures was changed to DRS/Landis instead of DRP/Ogle. This would facilitate inspection of operations procedures (specifically Emergency Operating Procedures) in conjunction with engineering inspections on calculations. The item on Westinghouse DB-25 breakers was subsumed by the Keowee modifications line item. It was determined that the modifications include items related to DB-25 breakers. There were few inspections completed since the last MOG meeting last month, therefore, no items were closed.
5. No significant changes were made to the Oconee Recovery Task Checklist during this meeting; therefore, a revised list will not be published.
6. The results of the Plant Performance Review were discussed. A memorandum forwarding the results will be sent from the Region. A review of the roll-up of those results (Attachment 4) was conducted. This roll-up was to be provided to the licensee during the upcoming meeting.

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

- Attachments:
1. Exit Strategy
  2. Inspection Criteria Memo
  3. Issues Checklist
  4. PPR Roll-Up Results

- cc w/atts:
- L. Reyes, RA/RII
  - C. Casto, DRP/RII
  - H. Berkow, NRR/PD
  - D. LaBarge, NRR/SPM
  - M. Tschiltz, EDO
  - B. Boger, NRR
  - M. Scott, SRI
  - K. Landis, DRS/RII
  - R. Carroll, DRP/RII

Distribution w/atts:  
 PUBLIC

OFFICE	RII:DRP	RII:DRP	NRR						
SIGNATURE									
NAME	COGLE	CCASTO	DLABARGE						
DATE	6/ 11 /98	6/ 11 /98	6/ /98	6/ /98	6/ /98	6/ /98	6/ /98	6/ /98	6/ /98
COPY?	<input checked="" type="checkbox"/> YES NO	<input type="checkbox"/> YES NO	<input checked="" type="checkbox"/> YES NO	<input type="checkbox"/> YES NO	<input type="checkbox"/> YES NO	<input type="checkbox"/> YES NO	<input type="checkbox"/> YES NO	<input type="checkbox"/> YES NO	<input type="checkbox"/> YES NO

## EXIT STRATEGY

Prior to the MOG suspending activities, the following will be satisfied:

### Issues checklist:

- All licensee recovery plan actions appropriately inspected. Licensee actions complete or planned licensee actions captured in an auditable tracking system.
- All NRC areas of concern have been inspected with minimum adequate performance demonstrated.

### PIM Review:

- Ongoing licensee performances as reflected by PIM entries shows adequate performance on the part of the licensee.

### Open Items:

- All recovery essential identified open items appropriately resolved. Where planned licensee actions exist, they are captured in an auditable tracking system.

When the above items are satisfied, the MOG will recommend to the Regional Administrator an assessment of licensee performance by a PPR or SALP panel. Exit from the MOG will occur if this assessment indicates that licensee performance is adequate in all template areas with no template subcategory areas evaluated as poor.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION


REGION II  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-3415

May 8, 1998

MEMORANDUM TO: Kerry D. Landis, Chief  
Engineering Branch  
Division of Reactor Safety

Charles R. Ogle, Chief  
Reactor Projects Branch 1  
Division of Reactor Projects

Michael A. Scott, Senior Resident Inspector, Oconee  
Division of Reactor Projects

FROM: Charles A. Casto, Deputy Director   
Division of Reactor Projects

SUBJECT: INSPECTION CRITERIA TO BE USED DURING FUTURE INSPECTION OF  
OCONEE ACTIVITIES

To support the efforts of the ongoing Oconee Management Oversight Group, please ensure that the guidance of the attachment is implemented for all future inspections at Oconee.

Attachment: Inspection Criteria

cc w/att: DRP Branch Chiefs  
DRS Branch Chiefs  
M. Tschiltz, NRR  
D. LaBarge, NRR  
H. Berkow, NRR  
B. Mallett, RII  
L. Plisco, RII  
B. Mallett, RII  
R. Carroll

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ATTACHMENT 2

## INSPECTION CRITERIA

1. Support of the MOG's function to provide oversight of Oconee activities will require modifying inspection report inputs. This applies to DRP and DRS inputs. Specifically, the MOG will need an assessment of the licensee's performance in the areas inspected in each of the applicable template areas.

2. To accomplish this, the conclusion of each item documented in an Oconee report including open items, will contain an assessment of the licensee's performance in each of the applicable template areas. This is in addition to any conclusion which is normally developed as part of the inspection process. Performance in each of the applicable template areas will be assessed as: excellent, good, adequate, or poor. These will be captured using the standard PIM entry categories as shown below. The following provides assessments for each of the standard PIM entries.

PIM SHADING	PIM ENTRY	ASSESSMENT FOR ITEMS INSPECTED
E	STRENGTH	Excellent Performance
G	POSITIVE	Good performance - Performance is more than adequate
A	POSITIVE	Adequate performance which at least meets regulatory requirements
P	NEGATIVE WEAKNESS LER VIOLATION NCV	Poor performance (For violations, LERs and NCVs, poor performance is in area of violation)

Each conclusion will contain an executive summary bullet for that conclusion. The executive summary bullets must be detailed enough to ensure that the bullet (and ultimately the corresponding PIM item) is clearly understood.

3. PIM entries will be provided by the inspectors for each of the conclusions reached along with designation of the applicable template area designations. The Oconee SRI will retain responsibility for entering these bullets into the PIM. These will be graphically displayed on the PIM as shown above to provide visual representation of licensee performance. The attached matrix provides the template areas and subcategories. Further information is provided in the attached examples.

	CATEGORY/				
	1 Operating Performance	2 Material Condition	3 Human Performance	4 Engineering Design	5 Problem ID/Resolution
<b>SUBCAT</b>	How the plant is operated during both normal and transient conditions using the established programs and processes; including support programs.	The performance and condition of plant equipment, how they are maintained and tested through the implementation of established programs and processes.	How individuals do their work within a given environment using the programs and processes that support the work.	How the plant design basis and design are documented, understood, modified and applied and how engineering support is provided to the facility.	The recognition, analysis, and resolution of material and performance issues within the plant; including licensee effort in self-assessment.
<b>A</b>	<b>Normal Operations</b> Operations* during normal conditions including shutdown, such as: configuration control, staffing/ resources, command, control, communication *includes operation of support programs	<b>Equipment Condition</b> Observations and findings regarding the performance or condition of plant equipment, including housekeeping.	<b>Work Performance</b> Actions of an individual during conduct of work activities. attention awareness communication	<b>Design</b> Documenting, understanding, maintaining, and modifying the plant design and design basis.	<b>Identification</b> Monitoring and review of material condition and performance, identification of problems, and communication of these to the appropriate personnel.
<b>B</b>	<b>Operations During Transients</b> Operations* during any unanticipated change in facility conditions, such as: activation of Emergency Response, plant transient, abnormal operations during shutdown, initiating events, unanticipated exposures, *includes operation of support programs	<b>Programs and Processes</b> Framework and implementing procedures to test and maintain plant structures, systems, and components. This includes the implementation of these programs.	<b>KSA</b> Issues associated with the knowledge, skills, and abilities of individuals, including training.	<b>Engineering Support</b> Technical support of the plant on an ongoing basis	<b>Analysis</b> Evaluation of identified issues to understand their breadth and depth including contributing factors and formulation of an appropriate course of action.
<b>C</b>	<b>Programs and Processes</b> Systems that provide the framework, structure, and implementing procedures to guide specific activities in support of safe plant operations, including the following programs: Safeguards, Health Physics, Emergency Planning, Security, Chemistry, Fire Protection, Personnel Safety		<b>Work Environment</b> Context, programs, and processes that influence and supports the execution of work, such as: physical environment, workload, supervisory oversight, procedure quality and completeness	<b>Programs and Processes</b> The framework and implementing procedures to guide activities in support of engineering, design, and licensing.	<b>Resolution</b> The resource commitment, scheduling, tracking, completion, and assessment of actions to resolve problems.

## EXAMPLES

The following is a list of examples developed by the Category Development and Criteria Development workshops. The examples are intended to be a representative sample (not an exhaustive list) of issues reflected in PIM entries. The examples are divided by Template subcategory and will assist a Resident Inspector and/or Branch Chief to appropriately categorize PIM entries.

### 1A. Normal Operations

Configuration control

Staffing

C<sup>3</sup> -- Command, Control, Communication

Execution of support programs

Number of violations of LCOs

Number of misconfiguration TS violations

Failures in tag-outs and lock-outs

### 1B. Operations During Transients

Emergency response --Identification, Classification, Follow-up

Configuration control

Staffing

C<sup>3</sup> -- Command, Control, Communication

Adequacy of event documentation

Execution of support programs (including activation of emergency response)

### 1C. Programs and Processes

EP Programs

Fire Protection

Security Program

Operations Support Program Procedural Development/Quality

Information Systems

Number of LERs involving problems with procedure inadequacies

### Other Operations Examples

*Examples below are categorized as either 3A or 3B depending on operating condition (normal/transient)*

number of inadvertent safety system actuations

number of problems during outages

difficulty during startup

number of operations-induced transients

number of operations-induced scrams

number of operator-generated significant events

number of safety system actuations

severity of transients (and consequences)

number of significant events or precursors

escalation of minor conditions due to inadequate or wrong operator response

timeliness of response to events

number of operator errors due to poor communication

number of operator errors due to poor drawings

number of operator errors during response to transients due to lack of knowledge

- number and nature of operator errors in response to transients
- occurrence of errors of commission during response to transients
- use of risk information to guide decisions
- adequacy of work package tracking (configuration awareness)
- adequacy of outage planning (risk-informed)

*Configuration Control Examples (3A/3B)*

- instances in which adequate safety margins were not maintained
- instances in which appropriate defense-in-depth is not maintained
- instances in which operators demonstrated lack of knowledge of current plant configuration given plant activities
- instances in which operators did not effectively manage the plant's risk profile

*Command, Control, Communication Examples (3A/3B)*

- up-to-date operator knowledge of current plant conditions
- communications in control room in accordance with standards
- adherence to existing programs and processes
- instances of procedure violations
- operator awareness as demonstrated by alertness and vigilance
- adequacy of shift turnover
- effectiveness of communications with other departments
- instances of observed crowding in the control room
- demonstrated clarity of decision authority and accountability
- involvement of appropriate personnel in event response (function allocation)

2A. Equipment Condition

- Equipment Reliability/Failures
- Repetitive Equipment Failures
- Safety System Reliability/Failures
- Availability
- Equipment Forced Outage Rate
- Safety System Actuations
- Annunciator status
- Unplanned LCOs
- Equipment response after scram
- Maintenance Rule Results
- Performance History
- MPFFs
- Equipment Importance
- Equipment Problems
- Common cause failure rate
- Cleanliness
- Number of (operator) work-arounds
- Steam, water or oil leaks
- painting/preservation
- Testing Results (touch, smell)
- Material Condition Tags



Number of components in the alert range  
 Environmentally induced degradation  
 Equipment Aging  
 Number of temporary modules/modifications  
 Equipment vibration  
 Control Room Deficiency

#### 2B. Programs and Processes

Maintenance Program & Procedures  
 Surveillance Program & Procedures  
 Maintenance/Surveillance Procedure Implementation  
 On-line Maintenance  
 Maintenance Rule Program  
 Contractor Management/Oversight  
 Resources/Maintenance Staffing  
 Available Parts  
 Maintenance State --breakdown, preventive, predictive  
 Tools & Diagnostic Methods  
 IST/ISI Program  
 Maintenance Program  
 Testing properly accomplished  
 Trending Program Results  
 Test Pre-conditioning  
 Work Package Quality  
 Post-Maintenance Testing  
 Work Control/Execution  
 Foreign Material Exclusion  
 Maintenance Backlog  
 Overdue PMs  
 Rework Rates  
 Anticipated Deterioration  
 Corrective Maintenance Backlog  
 Instrumentation and Control Support

#### 3A. Work Performance

Good communication, communication breakdown  
 Procedure adherence, use of procedures, procedure use errors  
 Job performance aids  
 Work hand-off  
 # of transients that involve latent errors  
 Team performance, teamwork  
 Questioning attitude, pro-active vs. reactive  
 Formality in control room  
 Stop, Think, Act, Review (STAR)  
 Attention to detail  
 Cooperation  
 Excessive overtime

Stop work in questionable situation  
 HRA in PRA  
 Good job brief  
 Sleeping on duty  
 Overconfidence  
 Conscious vs. automatic  
 Fitness for duty  
 Unmotivated personnel  
 Wrongly motivated personnel  
 Appropriate people making decisions, decision making, timely decisions  
 Malicious compliance/non-compliance  
 HP contributes to event initiation  
 Inattention to duties, attentiveness, vigilance  
 Cognitive errors, 0% errors, personnel error rate  
 Safety focus  
 Number of events involving the lack of use of procedures  
 Number and nature of operator errors in response to transients  
 Occurrence of errors of commission during response to transients  
 Number of work arounds

### 3B. KSA/Training

KSA's, knowledgeable of job tasks, systems knowledge  
 Adequacy of work package  
 Exam failure rate  
 Worker task qualification process  
 OJT process  
 Training  
 Requalification failure rate  
 Use of mock-ups and dry runs  
 Requal program  
 Simulation  
 Use SAT, Training program deficiency, incorporated lessons learned in training  
 Conduct job briefings  
 Contractor qualification  
 Number of operator errors during response to transients due to lack of knowledge  
 Operator training up-to-date  
 Adequacy of pre-briefings and training for infrequent tasks

### 3C. Work Environment

Shift schedule  
 Environmental related human errors, stress induced problems, environmental conditions  
 Supervision, management oversight  
 Task allocation, function allocation, workload  
 Procedure quality (generic)  
 Understanding, clear accountability  
 Operator aids  
 Habitual use of overtime

Rate of staff turnover  
 Number of staffing level exceptions or violations

#### 4A. Design

Environmental Design -- heat issues, lighting issues, noise issues  
 Environmental Qualification (EQ)-- seismic, environmental  
 Maintainability  
 FSAR updates  
 Up-to-date drawings  
 Quality of calculations, Design calculations  
 Response to engineering requests  
 Design basis reconstitution  
 Manual operator response time measures  
 Digital/Analog integration  
 CR redesigns  
 Maintenance CDB (Current Design Basis)  
 Design Issues -- Human Errors (HSI), Design of hardware  
 Plant computer issues  
 SPDS redesign  
 Design basis understanding  
 Accessibility of design information  
 Maintenance CLB (Current License Basis)  
 Instances of a mismatch between current as-built plant and drawings and other documentation

#### 4B. Engineering Support

Reactor Engineering  
 Fuel cycle management  
 Technical support  
 Material certifications  
 JCOs (Justification for Continued Operations)  
 Technical adequacy of procedures  
 Quality of operability evaluations  
 Test review and analysis  
 50.59 Reviews  
 USQ (Unresolved Safety Question)  
 Control of engineering backlog  
 Appropriate operating limits in procedures  
 Trend system performance  
 PRA Development  
 OER quality  
 Quality of safety evaluations  
 System Engineering Ownership  
 System engineer knowledge of system status  
 Corporate engineering  
 Engineering design backlog  
 System reviews  
 Plant efficiency -- steam losses, etc.

Responsiveness to engineering support requests  
 Motor-Operated Valve  
 Follow-up evaluation of plant modifications -- Testing following design changes

#### 4C. Programs and Processes

Temporary modification  
 System to prioritize engineering requests  
 Technical specifications  
 Quality of exemption requests  
 Documentation issues  
 Quality of amendment requests  
 Modification control issues  
 Maintenance of vendor documents  
 Quality of module packages  
 Engineering organization intrusiveness  
 Licensing issues  
 Perform Part 21 reviews  
 Set point control  
 Vendor/contractor oversight  
 OER program  
 Maintenance/Surveillance Technical Adequacy

#### 5A. Identification

Self assessment  
 QA findings  
 Peer evaluations  
 OER reviews, industry feedback  
 Questioning attitude  
 Problem identification criteria/threshold  
 Potential Problem Analysis Process (PPA)  
 Performance trending  
 Problem report levels adhered to  
 Quality Control/Assurance (QC/QA)  
 Workers initiate problem reports, problem ID available at all levels of personnel  
 # of problem ID problems -- many or single event  
 Problem ID tag  
 Human performance issues are addressed  
 Performance observation methods  
 Systemic thinking/ approach  
 Improvement programs  
 Role of QA in the site (reporting level)  
 Independent review/ oversight, ISEG, PORC, off-site committee effectiveness  
 Corporate culture  
 Openness with NRC  
 Management knowledgeable of problems  
 Employee grievances, employee-management relations

### 5B. Analysis

- Event investigations
- Prioritization of problems
- Self assessment criterion defined
- Root-Cause Analysis, events and causal factors analysis, document reasons for Terminating RCA
- Trended including MIS, methods for capturing trend information
- Operability evaluations are performed
- Communications of priorities
- Analysis/ evaluation criteria
- Identify conditions that the corrective actions are intended to achieve
- Qualifications of RCA evaluations
- Specify links between root causes and corrective actions
- Extent of condition review
- Use of lessons learned from near misses
- PRA: to evaluate resolutions, prioritize problems, identify precursors
- PRA to communicate issues
- Auditable
- Trending data includes human performance categories
- Quality of LER preparation
- Document conclusions of RCA

### 5C. Resolution

- Timeliness, average time to implement fixes
- External commitments, response to NRC concerns
- Management support, adequate dollars to fix problems
- Repetitive issues, repeat failure rates
- Corrective action program
- Inter-departmental communication of issues
- Validation and verification, post-modification testing
- Corrective action backlog
- Planning, manpower requirements considered, CA plan development, internal commitments
- Determined measurable objectives, measures of effectiveness of CA's
- Monitoring corrective actions
- Tracking
- # of operator work arounds
- IPE follow-up
- Feedback to originator
- Allegations
- Employee concerns program, safety concerns program

# OCONEE RECOVERY PLAN ISSUES CHECKLIST

Area	Action	NRC Lead	Licensee Status	NRC Inspection/Action (Results/IR/Date)	NRC Status
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LICENSEE RECOVERY PLAN ACTIONS					
Design Basis	HPI System Review	Landis			
	SITA HPI/LPI System Review	Landis			
	Oconee Safety Related Designation (OSRDC)	Landis (NRR-Any licensing issues)			
	Resolve ECCW Suction Supply to LPSW (OSW)	Landis			
	USFAR Review Project	Landis			
	SQUG Outlier Resolution Review	Landis			
	Emergency Power Project	Christnot			
	GL 96-06 Review (non-licensing issues)	Landis			
	EFW SSEI	Landis			
	Configuration Management Project	Landis			

System Equipment	Material Condition Upgrade	Scott			
	Control Rod Drive Mechanism Replacement	Billings			
	Top Equipment Problem Resolution Process (TEPR)	Freeman			
	System Team Development	Landis			
	Fluid Leak Management Program	Freeman			
	Temporary Modifications	Landis			
	CRIP Management and Reduction	Billings			
	Inservice Inspection Program Assessment	Fredrickson			
	Secondary System Component Reliability	Landis			
Human Performance	Human Performance Measures and Organization Direction (ORP)	Scott			
	Maintenance Procedures	Christnot			
Self Assessment	PIP Activity Backlog	Landis			
	PIP Quality Improvements	Landis			
	Manager Observations and Group Self Assessment	Landis			

	Inplant Review/Job Observation Program	Billings			
Operational Focus	Root Cause Analysis and Corrective Action	Landis			
	Emergency Operating Procedures	Landis			
	Response to Operational Concerns	Billings			
	Risk Assessment	Freeman			
	Work Backlog Management	Fredrickson			
	Outage Readiness	Fredrickson			
Temporary Defense	A.1 Management oversight observation	Freeman			
	A.2 Management oversight during startup/shutdown	Freeman			
	A.3 Inventory Monitoring Enhancements	Freeman			
	B. Eng/Ops/Maint Interface	Landis/ Fredrickson			
	C. Improved Trouble Shooting	Freeman			
	E. Post Maint/Mod Testing	Landis/ Fredrickson			
	F. Chemistry/Ops Interface	Christnot			
<b>NRC AREAS OF CONCERN</b>					



Human Performance	Procedural Controls/Adequacy/Compliance	Scott			
Problem ID and Resolution	Safety Assessment Quality Verification (including OEF)	Christnot			
Design Basis/Tech Support	CREV SSEI	Landis			
	Emergency Electrical Distribution System Review (TAC A0886, A0887, A0888)	NRR			
Equipment	Containment Coatings	Landis			
	Keowee W Breaker Mods/Replacement	Christnot			
<b>Issues Not Essential for Recovery</b>					
Code Issues	98-01 Przr & Letdown welds	NRR			
	98-GO-001 VT-3 exam req	NRR			
	98-GO-002 Bolting torque	NRR			
	98-GO-003 Alt to exam of concrete containment	NRR			
	Fatigue Analysis	NRR			
	Emergency Power System Reliability Assurance	NRR			
	Operating Experience Program	Christnot			

	Operational Safeguards Response Evaluation (OSRE)	Landis			
	Severe Accident Management Guidelines (SAMGs)	Billings			
	OAC Replacement Project	Freeman			
	ONS Equipment Aging Project	Freeman			
	Integrated Control System Replacement	Freeman			
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)	Complete
	MSL Break Detection (BL 80-04)	NRR			

## ROLLUP CRITERIA

The following are the criteria which will be used during assessment of Ocone performance:

- Excellent: Performance exceeds regulatory standards in the subject area and is critically assessed for improvement. There are no significant NRC-identified implementation problems.
- Good: Performance in subject area meets regulatory standards with minor exceptions.
- Adequate: While performance in subject area meets regulatory standards, problems exist which indicate that additional licensee attention is warranted.
- Poor: Significant problems exist in the subject area or there are numerous examples therein which indicate systemic or pervasive problems. Significant means or results in (1) Severity level III (or higher) identified violation; (2) Safety or risk significant events; (3) Systematic management breakdown; (4) Willful acts; or (5) Major variance from requirement.

