



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET SW SUITE 23T85  
ATLANTA, GEORGIA 30303-8931**

April 10, 2001

Duke Energy Corporation  
ATTN: Mr. H. B. Barron  
Vice President  
McGuire Nuclear Station  
12700 Hagers Ferry Road  
Huntersville, NC 28078-8985

**SUBJECT: MCGUIRE NUCLEAR STATION - NRC INTEGRATED INSPECTION REPORT  
50-369/00-07 AND 50-370/00-07**

Dear Mr. Barron:

On March 17, 2001, the NRC completed an inspection at your McGuire Nuclear Station. The enclosed report documents the inspection findings which were discussed on March 29, with you and other members of your staff.

The inspection examined activities conducted under your licenses as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your licenses. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

No findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Robert C. Haag, Chief  
Reactor Projects Branch 1  
Division of Reactor Projects

Docket Nos. 50-369, 50-370  
License Nos. NPF-9, NPF-17

Enclosure: NRC Integrated Inspection Report 50-369/00-07, 50-370/00-07  
w/Attached NRC's Revised Reactor Oversight Process

cc w/encl: (See page 2)

DEC

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-369, 50-370

License Nos: NPF-9, NPF-17

Report No: 50-369/00-07, 50-370/00-07

Licensee: Duke Energy Corporation

Facility: McGuire Nuclear Station, Units 1 and 2

Location: 12700 Hagers Ferry Road  
Huntersville, NC 28078

Dates: December 17, 2000 - March 17, 2001

Inspectors: S. Shaeffer, Senior Resident Inspector  
M. Franovich, Resident Inspector  
J. Blake, Senior Project Manager (Sections 1R02, 1R17)  
S. Vias, Senior Reactor Inspector (Sections 1R02, 1R17)  
B. Bearden, Reactor Inspector (Sections 1R02, 1R17)

Approved by: Robert Haag, Chief, Projects Branch 1  
Division of Reactor Projects

Enclosure

## SUMMARY OF FINDINGS

IR 05000369-00-07, IR05000370-00-07 on 12/17/00 - 03/17/2001, Duke Energy Corporation, McGuire Nuclear Station, Units 1 & 2, Quarterly Integrated Resident Inspection Report.

The inspection was conducted by resident inspectors and three regional inspectors reviewing 10CFR 50.59 implementation and permanent plant modifications. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/OVERSIGHT/index.html>

### **A. Inspector Identified Findings**

No findings of significance were identified.

### **B. Licensee Identified Violations**

Two violations of very low significance which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. The violations are listed in section 4OA7 of this report.

## Report Details

### Summary of Plant Status:

On January 23, 2001, Unit 1 was shutdown to Mode 5 (cold shutdown) to repair leakage from a primary safety valve; it was returned to 100 percent power on January 30, 2001, after repairs were completed. On February 19, 2001, reactor power was reduced to 50 percent following a trip of the 1B main feedwater (CF) pump. The unit was returned to 100 percent power on February 20, 2001. On March 9, 2001, Unit 1 was shutdown to begin the Unit 1 End of Cycle 14 (1EOC14) refueling outage. At the end of the inspection period, Unit 1 was defueled and progressing with planned outage activities. With the exception of a power reduction to 80 percent on January 20, 2001, to facilitate repair of a condenser leak, Unit 2 remained at 100 percent power during the inspection period.

## **1. REACTOR SAFETY**

### **Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity**

#### 1R02 Evaluations of Changes, Tests, or Experiments

##### a. Inspection Scope

The inspectors reviewed nine safety evaluations (listed at the end of this Inspection Report), in the Initiating Events, Mitigating Systems, and Barrier Integrity cornerstone areas, to confirm that the license had appropriately reviewed and documented the changes in accordance with 10 CFR 50.59 and Nuclear Station Directive (NSD)-209, 10 CFR 50.59 Evaluations, Revision 8, and had considered the conditions under which changes to the facility or procedures may be made without NRC approval. The inspectors also reviewed 14 changes for which the licensee had determined that 10 CFR 50.59 evaluations were not required, to confirm that the licensee's conclusions to "screen out" these changes were correct and consistent with 10 CFR 50.59 and NSD-209.

The major documents reviewed, which are listed at the end of this Inspection Report, included procedures, engineering calculations, Nuclear Station Modifications (NSMs), McGuire Minor Modifications (MGMMs) and Problem Investigation Process reports (PIPs). As necessary, the inspectors also reviewed applicable sections of the Updated Final Analysis Report (UFSAR), the current UFSAR update packages, the McGuire Design Basis Documentation, supporting analyses, Technical Specifications (TS), and procedures.

In addition, the inspectors reviewed licensee audits and assessments to confirm that the licensee was identifying issues, entering issues into the corrective action program, and resolving the associated concerns.

##### b. Findings

No findings of significance were identified.

#### 1R04 Equipment Alignment

##### a. Inspection Scope

For the systems identified below, the inspectors reviewed plant documents to determine correct system lineup, and conducted walkdowns to verify that the systems were correctly aligned.

- Unit 2 spent fuel building ventilation (VF) system during spent fuel cask operation - (partial walkdown)
- Unit 1 hydrogen skimmer (VX) system - (partial walkdown)
- Unit 2 4.16 kV AC essential bus (2ETA) alignment and associated 600 volt load centers- (full walkdown)

The inspectors assessed conditions such as equipment alignment (i.e., valve positions, damper position, and breaker alignment) and system operational readiness (i.e., control power and permissive status) that could affect operability of these systems. In addition, the full system walkdown also included review of breaker red tags, evaluation of room and cubicle ventilation, and that relay and other breaker/bus protective devices are set in accordance with associated operations procedures, maintenance procedures, and the UFSAR.

##### b. Findings

No findings of significance were identified.

#### 1R05 Fire Protection

##### a. Inspection Scope

To assess the adequacy of the fire protection program implementation, the inspectors toured the following risk significant areas to assess transient combustible material control, visible material condition and lineup of fire detection and suppressions systems, status of manual fire equipment, and condition of passive fire barriers:

- Unit 2 emergency diesel generator (EDG) rooms during maintenance activities
- Vital instrumentation power equipment rooms
- Cable spreading rooms
- Unit 2 turbine-driven auxiliary feedwater pump (TDCAP) room
- Unit 2 motor-driven auxiliary feedwater pump (MDCAP) room

- Unit 2 control rod motor generator set room and vital area
- Waste gas systems and explosive gas monitoring

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

The inspectors reviewed licensed operator requalification performance, training, and associated training documentation to verify that performance deficiencies had been addressed through the requalification training program. Specifically, the inspectors reviewed activities concerning the Unit 1 shutdown for refueling outage 1EOC14 and related Just In Time Training (JITT).

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

For the equipment issues described in the PIPs listed below, the inspectors reviewed the licensee's implementation of the Maintenance Rule (10 CFR 50.65) with respect to the characterization of failures, the appropriateness of the associated a(1) or a(2) classification, and the appropriateness of either the associated a(2) performance criteria or the associated a(1) goals and corrective actions.

<u>PIP Number</u>	<u>Title/Description.</u>
M-01-0119	TS entry for 1EMF17 failure (spent fuel pool bridge radiation monitor)
M-00-3546	Adverse trend in motor control center auxiliary contact switch failures affecting ESF valves operability.
M-00-4735	TDCAP and Standby Shutdown Facility (SSF) unavailable during auxiliary shutdown panel test
M-01-4325	Hydrogen igniter glow plug failure
M-01-0147	'H' instrument air (VI) compressor failed to start (dead battery)
M-01-0764	Inoperable waste gas explosive gas monitoring system



b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the licensee's control of plant risk and configuration as related to removing from service, due to emergent or planned work activities, structures, systems, and components (SSCs) listed below which were within the scope of the maintenance rule or which were otherwise risk-significant. Emphasizing potential high risk configurations and high priority work items, the inspectors evaluated the following: (1) effectiveness of the work prioritization and control; (2) assessment of integrated risk of the work backlog; and (3) safety assessments and/or management activities performed when SSCs are taken out of service. The inspectors reviewed the licensee's implementation of Maintenance Rule (10 CFR 50.65) a(4), with respect to risk assessments for work activities.

<u>PIP Number/ Work Order (WO)</u>	<u>Title/Description</u>
M-01-0040	De-energizing motor control center 1EMXH-1 during SSF unavailability
M-01-0162	Unit 2 condenser circulating water (RC) isolation/flood concern during down power and system tagout and draining
M-01-0143	1B service water (RN) pump unavailable while 'G & H' VI compressors inoperable
M-01-0278	Unit 1 code safety valve 1NC2 replacement
WO 98366718	Main steam safety valve (MSSV) testing delay in reactor coolant (NC) system power-operated relief valve (PORV) testing schedule

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions

a. Inspection Scope

The inspectors reviewed the operating crews' performance during the following non-routine evolutions and/or transient conditions to determine if the response was appropriate to the event and in accordance with procedures and training. Operator logs, plant computer data, and associated operator actions were reviewed.

<u>PIP Number</u>	<u>Title/Description</u>
M-01-0278	On January 22, 2001, operators entered Abnormal Procedure (AP)-10, NC System Leakage Within the Capacity of Both NV Pumps ; Unit 1 excess NC system leakage via 1NC-2 pressurizer code safety valve
M-01-0686	February 19, 2001, the 1B CF pump trip and subsequent load reduction to 50 percent power
M-01-0986	On March 9, 2001 during Unit 1 shutdown from Mode 2 to Mode 3, NC system temperature went below minimum temperature for criticality due to overfeed of steam generators

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed selected operability evaluations affecting risk significant SSCs listed below to assess the technical adequacy of the evaluations. Where compensatory measures were involved, the inspectors also determined whether the compensatory measures were in place, would work as intended, and were appropriately controlled.

<u>PIP Number</u>	<u>Title/Description</u>
M-01-0106	Noise on 2B gamma metrics
M-01-0396	Unexpected difference between estimated critical position (control rod) and actual critical position during Unit 1 restart
M-01-0712	1A EDG control panel alarm C-3 (low lube oil pressure)
M-01-0878	Potential for CA pump seal cooling orifice clogging from RN supply

b. Findings

No findings of significance were identified.

## 1R16 Operator Workarounds

### a. Inspection Scope

The inspectors evaluated the selected operator workaround listed below for potential affects on the functionality of mitigating systems. The workaround was reviewed to determine: (1) if the functional capability of the system or human reliability in responding to an initiating event was affected; (2) the effect on the operator's ability to implement abnormal or emergency procedures; and (3) if operator workaround problems were captured in the licensee's corrective action program.

- PIP M-01-0252, Unit 2 manual isolation of moisture separator reheater

In addition, the inspectors reviewed the cumulative affects of all identified operator workarounds on the reliability, availability, and potential for misoperation of the identified systems; the potential for increasing an initiating event frequency; and impact on the ability of operators to respond in a correct and timely manner to a plant transient and accident. Aggregate impacts of the identified workarounds on each individual operator watch station were also reviewed.

### b. Findings

No findings of significance were identified.

## 1R17 Permanent Plant Modifications

### a. Inspection Scope

The inspectors evaluated 13 modifications (listed at the end of this Inspection Report) in the Initiating Events, Mitigating Systems, and Barrier Integrity cornerstone areas, to verify that the modified systems' designs had not been degraded, and that the modifications had not left the plant in an unsafe condition. The inspectors verified the following inspection attributes were satisfied: energy requirements can be supplied by supporting systems; materials/replacement components are compatible with physical interfaces; replacement components are seismically qualified for application; Code and safety classification of replacement system, structures, and components were consistent with design bases; the appropriateness of modification design assumptions; that post-modification testing would establish operability; those failure modes introduced by the modification are bounded by existing analyses; and that appropriate procedures or procedure changes have been initiated.

The major documents reviewed, which are listed at the end of this Inspection Report, included PIPs, MGMMs, and calculations. The inspectors also reviewed additional information as necessary such as applicable sections of the UFSAR, the current UFSAR update packages, the McGuire Design Basis Documentation, supporting analyses, TSs, and procedures.

In addition, the inspectors reviewed licensee audit and assessment reports to confirm that the licensee was identifying issues and initiating actions to resolve concerns.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (PMT)

a. Inspection Scope

The inspectors reviewed PMT procedures and/or observed testing activities for the equipment below to ensure the equipment was returned to service satisfactorily. The inspectors evaluated the PMT to ensure it properly addressed the work performed and that equipment functional capabilities were adequately verified.

<u>PIP Number/WO</u>	<u>Title/Description</u>
M-00-03143	Code safety valve 1NC-2 repair and testing
M-01-0600/ WO 98343506	EDG 2A engine starting air (VG) repair and testing
WO 98326460	Chemical and volume control (NV)-849 auxiliary contact replacement (SSF makeup pump discharge valve)
WO 98347452	Valve 2RN-174B (EDG 2B heat exchanger outlet) pushbutton replacement and inspection of actuator torque switches

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

The 1EOC14 refueling outage was initiated on March 9, 2001. During this inspection period, the inspectors verified pre-outage shutdown risk plans, reviewed performance data concerning plant shutdown parameters, including reactor coolant system cooldown rates and residual heat removal capabilities, defueling (boron concentrations and neutron source range monitoring), and other outage-related activities.

Prior to the outage, in order to verify that the licensee had appropriately considered risk, industry experience, and previous site-specific problems, the inspectors reviewed the licensee's outage risk control plan. The inspectors also confirmed through review of

various plant operating manual procedures that the licensee had developed mitigation/response strategies for losses of the following key functions:

- Decay heat removal
- Electrical power distribution
- Inventory control
- Reactivity control
- Pressure control
- Containment

The inspectors reviewed the following procedures related to the shutdown of the unit:

- OP/1/A/6100/003 Controlling Procedure for Unit Operation
- OP/1/A/6100/SD-4 Bypass/Restoration of P-12 Interlock
- OP/1/A/6100-SD-4 Cooldown to 240°F
- OP/1/A/6100/SD-3 Shutdown CF/CA
- OP/1/A/6100/SD-2 Cooldown to 400°F
- OP/1/A/6100/SD-1 Prepare for Cooldown
- OP/1/A/6100/SD-8 Water Solid Operations
- OP/1/A/6300/001 Turbine Generator Startup/Shutdown

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

.1 Routine Surveillance Testing

a. Inspection Scope

The inspectors witnessed surveillance tests and/or reviewed test data of selected risk-significant SSCs listed below, to assess, as appropriate, whether the SSCs met TS requirements, UFSAR, and licensee procedure requirements. The inspectors also determined if the testing effectively demonstrated that the SSCs were operationally ready and capable of performing their intended safety functions. Compensatory measures, where applicable, were also verified.

<u>Procedure/WO</u>	<u>Title/Description</u>
PT/2/A/4450/006A	VX system train 2A performance test
WO 98240292	Final 2A EDG cylinder head replacement and testing
WO 98366718 & WO 98366719	MSSV setpoint test (valves 1SV-20 and 1SV-21)
PT/1/A/4350/036A	EDG 1A 24-hour run

b. Findings

No findings of significance were identified.

.2 Inservice Surveillance Testinga. Inspection Scope

During PT/1/A/4252/003A/B, TDCAP Flow Test, the inspectors reviewed valve stroke testing and visual inspection of Unit 1 valves CA 50, 36, 66, and 54 (auxiliary feedwater flow control valves) to determine the effectiveness of the licensee's American Society of Mechanical Engineers (ASME) Section XI testing program. The inspectors evaluated compliance with ASME code requirements, reviewed test methods and results, acceptance criteria, test instrument range/accuracy, and compliance with TS action statements/reporting requirements. The inspectors also verified that corrective actions were taken as applicable.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modificationsa. Inspection Scope

The inspectors reviewed the following temporary modifications (MGTM) to determine whether system operability and availability were affected, that configuration control was maintained, and that post-installation testing was performed.

<u>Modification Number</u>	<u>Title/Description</u>
MGTM 0159	1B CF pump turbine backup bearing oil pump test feature
MGTM 0147	Isolate CA pushbutton nuisance ground

b. Findings

No findings of significance were identified.

**Cornerstone: Emergency Preparedness**1EP6 Drill Evaluationa. Inspection Scope

On February 14, 2001, the inspectors observed an emergency drill from the control room simulator. The emergency drill involved activation of the technical support center and emergency operations facility. Operator performance, emergency and abnormal

procedure use and adherence, event classifications, drill objectives, post-drill critique, and problem identification and resolution were evaluated. The purpose of the inspection was to also verify that the licensee conducted an effective emergency drill that demonstrated staff and operator proficiency in responding to an event, as well as identified areas for enhancements.

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES**

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors verified the following three Reactor Safety PIs for accuracy:

<b><u>Cornerstone</u></b>	<b><u>PI</u></b>
Mitigating Systems	Safety system functional failures
Mitigating Systems	Safety system unavailability, residual heat removal
Mitigating Systems	Safety system unavailability, high pressure safety injection

To verify the PI data, the inspectors reviewed control room logs, TS Action Item Log entries, and maintenance rule data.

b. Findings

No findings of significance were identified.

4OA3 Event Followup

(Closed) Licensee Event Report (LER) 50-370/00-02-01, McGuire Unit 2 Manual Reactor Trip following an Invalid Main Turbine runback. The event occurred due to the opening of electrical circuit breaker KXB-37, which supplies power to the runback logic circuitry. Following extensive testing, the cause of the open KXB-37 breaker could not be determined. Based on the inspectors' review, the event had no significant adverse impact on operation of the unit. No new issues were revealed by the LER.

4OA6 Meetings

The inspectors presented the inspection results to Mr. Brew Barron, McGuire Nuclear Station Vice President, as well as other members of licensee management and staff, at the conclusion of the inspection on March 29, 2001. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

#### 4OA7 Licensee Identified Violations

The following findings of very low significance were identified by the licensee and constitute violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as Non-Cited Violations (NCV).

If you deny these noncited violations, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the McGuire facility.

<u>NCV Tracking Number</u>	<u>Requirement Licensee Failed to Meet</u>
370/00-07-01	Failure to follow procedure (Technical Specification 5.4.1) for PT/2/A/4350/026C, Auxiliary Shutdown Panel Verification. The procedure indicates that all manipulations of controls at the panel shall be performed by a licensed reactor operator. A non-licensed operator performed the auxiliary shutdown manipulations during the performance of the test, contrary to the requirements of the procedure. This is captured in the licensee's corrective action program under PIP M-00-4140. This is being treated as a Non Cited Violation.
369/00-07-02	Inadequate corrective actions (10CFR50, Appendix B, Criterion XVI) for recurring problems with shutdown operations involving loss of letdown and/or inadvertent reactor coolant (NC) system cooldown transients. During a Unit 1 shutdown from Mode 2 to Mode 3 on March 9, 2001, NC system temperature went below minimum temperature for criticality due to overfeed of steam generators. This event occurred because of ineffective corrective actions to address procedural deficiencies and/or equipment problems complicating plant cooldown. This is captured in the licensee's corrective action program under PIP M-01-0986. This is being treated as a Non Cited Violation.



**PARTIAL LIST OF PERSONS CONTACTED**Licensee

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Bradshaw, S., Superintendent, Plant Operations  
Byrum, W., Manager, Radiation Protection  
Cash, M., Manager, Regulatory Compliance  
Dolan, B., Manager, Safety Assurance  
Evans W., Security Manager  
Geer, T., Manager, Reactor Electrical Systems Engineering  
Jamil, D., Station Manager, McGuire Nuclear Station  
Patrick, M., Superintendent, Maintenance  
Peele, J., Manager, Engineering  
Loucks, L., Chemistry Manager  
Thomas, K., Superintendent, Work Control  
Travis, B., Manager, Mechanical Civil Engineering

**ITEMS OPENED, CLOSED, AND DISCUSSED**Opened

None

Closed

50-370/00-02-01	LER	Unit 2 Manual Reactor Trip Following an Invalid Main Turbine Runback
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Discussed

None

**LIST OF DOCUMENTS REVIEWED****Screened for 50.59s**

PKG 99-103	USFAR Changes, Section 6.3.2.11, Containment Sump Isolation Valve Leakage [PIP M-99-02984]
PKG 00-080	Add ND/NS Sump Pump Monitoring Alarms based on Run-time and Frequency [PIP M-99-00104, MGMM-11615]
PKG 99-097	USFAR Review Update, Section 6.2.2, Ice Condenser System [PIP M-99-01653]
MGMM-7849	Change transmitters on RCP number 1 seal differential pressure [PIP 0-M95-1741]
MGMM-8443	Nuclear Service Water Strainer Backwash Valve Replacement [PIP 0-M96-0356]
MGMM-11899	Modification to Raise the Alarm Set Point for NC Pumps due to Elevated Fouling and Temperatures at the End of Summer [PIP M-00-02734]
MGMM-10295	Rewiring Shunt Trip Circuitry From MCC 2EMXA
MGMM-10395	Normal and Standby Breakers to Loadcenter 2ELXB and ELXD
MGMM-10362	52 Auxiliary Switch Configuration Changes
MGMM-11130	VCT Alarm and Low Level Auto Swapover Setpoint Changes
OP/1/A/6100/SD-9	Actuator Change to Valve 2CA0116B
EP/2/A/5000/FR-Z.1	Bypass/Restoration of P-12 Interlocks
	Revision to Operations Group Abnormal and Emergency Procedures for Service Water Flow Rates to Containment Spray Heat Exchangers
EP/1/A/5000/ES-1.3	Transfer to Cold Leg Recirculation, Revision 14
EP/1/A/5000/FR-Z.1	Response to High Containment Pressure, Revision 11

**Full Evaluations with 50.59s**

MGMM-11127	75 GPM NV Flow Orifice Replacement with a Manual Throttle Valve [PIP M-93-00503]
MGMM-10794	NF Chiller Refrigerant Changeout [PIP 0-M98-03761]
MGMM-12032	ND, NS and KF Pump Motor AHU Tube Layout and Plugging Record Drawings [PIP M-00-00918]
MGMM-10408	Replacement of Isolation and Flow Control Valves for NS (Containment Spray) Heat Exchangers [PIP 2-M97-3209]
NSM MG-12504/P1	Replacement of EDG Load Sequencer Timers
NSM MG-22515/00	Auxiliary Feedwater System Reliability Improvement/Replacement of Discharge Check Valve with Automatic Recirculation Valve
MGTM-0158	Temporary Modification of Containment Sump Level Instrument Channel B [PIP M-00-01559]
Calculation DPC 1553.26-00-0093	Course and Fine Mesh Fuel Assembly Nozzles
UFSAR Change 99-061	Changes proposed for UFSAR Section 6.5 and associated tables and figures

**Full Modification Package Review**

MGMM-11255	Addition of excessive flow check valves in hydrogen supply header to auxiliary building
MGMM-7849	Change transmitters on RCP #1 seal differential pressure [PIP 0-M95-1741]
MGMM-8443	Nuclear Service Water Strainer Backwash Valve Replacement [PIP 0-M96-0356]
MGMM-10408	Replacement of Isolation and Flow Control Valves for NS (Containment Spray) Heat Exchangers [PIP 2-M97-3209]
MGMM-10794	NF Chiller Refrigerant Changeout [PIP 0-M98-03761]
MGMM-11127	75 GPM NV Flow Orifice Replacement with a Manual Throttle Valve [PIP M-93-00503]
MGMM-12032	ND, NS and KF Pump Motor AHU Tube Layout and Plugging Record Drawings [PIP M-00-00918]
NSM MG-12504/P1	Replacement of EDG Load Sequencer Timers
NSM MG-22515/00	Auxiliary Feedwater System Reliability Improvement/Replacement of Discharge Check Valve with Automatic Recirculation Valve
MGMM-10295	Rewiring Shunt Trip Circuitry From MCC 2EMXA
MGMM-10395	Normal and Standby Breakers to Loadcenter 2ELXB and ELXD 52 Auxiliary Switch Configuration Changes
MGMM-10362	VCT Alarm and Low Level Auto Swapover Setpoint Changes
MGMM-11130	Actuator Change to Valve 2CA0116B

**Audits and Assessments**

SA-99-22	Three Site Engineering Functional Area Assessment, 11/2/99
MOD-SA-99-1	Modification Planning Problem Causing Reschedule or Operation Schedule
SA-99-28	Outage Modifications Readiness Review Assessment
MOD-SA-99-3	NSD 607 Required Assessment of 1998 Assessment Corrective Actions, 1/13/00
MOD-SA-00-3	Variation Notice Trending, 12/14/00

**Licensee's Administrative Procedures, References & Other Documents**

NSD-301, Rev 20, Nuclear Station Modifications  
 NSD-209, Rev 8, 10CFR 50.59 Evaluations  
 McGuire Modification Manual, 12/28/00 Revision  
 NUREG - 0422, Safety Evaluation Report, March 1978  
 Technical Issues Checklist, Revision 14  
 McGuire Nuclear Station, Design Basis Documentation, March 20, 1996  
 UFSAR, November 18, 1999  
 TS Amendments 194/175, 9/13/00

# NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

<b>Reactor Safety</b>	<b>Radiation Safety</b>	<b>Safeguards</b>
<ul style="list-style-type: none"><li>● Initiating Events</li><li>● Mitigating Systems</li><li>● Barrier Integrity</li><li>● Emergency Preparedness</li></ul>	<ul style="list-style-type: none"><li>● Occupational</li><li>● Public</li></ul>	<ul style="list-style-type: none"><li>● Physical Protection</li></ul>

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.