



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

June 28, 2002

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
50-369/02-02 AND 50-370/02-02 AND INDEPENDENT SPENT FUEL
STORAGE INSTALLATION INSPECTION REPORT 72-38/02-02

Dear Mr. Barron:

On June 15, 2002, the NRC completed an inspection at your McGuire Nuclear Station. The enclosed report documents the inspection findings which were discussed on June 21, 2002, with you and 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/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Binoy Desai, Acting Chief,
Reactor Projects Branch 1
Division of Reactor Projects

Docket Nos. 50-369, 50-370, 72-38
License Nos. NPF-9, NPF-17

Enclosure: NRC Integrated Inspection Report 50-369/02-02, 50-370/02-02, 72-38/02-02
w/Attachment - Supplemental Information

DEC

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-369, 50-370, 72-38

License Nos: NPF-9, NPF-17

Report Nos: 50-369/02-02, 50-370/02-02, 72-38/02-02

Licensee: Duke Energy Corporation

Facility: McGuire Nuclear Station, Units 1 and 2

Location: 12700 Hagers Ferry Road
Huntersville, NC 28078

Dates: March 24, 2002 - June 15, 2002

Inspectors: S. Shaeffer, Senior Resident Inspector
E. DiPaolo, Resident Inspector
R. Chou, Reactor Inspector (Section 40A5)

Approved by: Binoy Desai, Acting Chief, Projects Branch 1
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR05000369-02-02, IR05000370-02-02, IR 07200038-02-02 on 03/24/02 - 06/15/2002, Duke Energy Corporation, McGuire Nuclear Station, Units 1 & 2 and Independent Spent Fuel Storage Installation. Quarterly Integrated Resident Inspector report.

The inspection was conducted by the resident inspectors and a Regional reactor inspector. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using the Significance Determination Process (SDP) found in Inspection Manual Chapter 0609. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website.

A. Inspector Identified Findings

No findings of significance were identified.

B. Licensee Identified Violations

One violation of very low significance (Green) which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. The violation is listed in section 4OA7 of this report.

Report Details

Summary of Plant Status:

Unit 1 operated at approximately 100 percent power during the inspection period.

Unit 2 began the inspection period in Cold Shutdown (Mode 5) with startup activities underway for the End of Cycle 14 (EOC 14) refueling outage. Power Operation (Mode 1) was entered on March 27, 2002. The unit achieved full power on March 31, 2002, and operated at approximately 100 percent power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather

a. Inspection Scope

The inspectors toured numerous areas of the plant and evaluated design features and the implementation of procedures used to protect mitigating systems from adverse weather (hot weather conditions). Cold weather protective devices were verified removed from service and properly secured, temporary heaters de-energized, and ventilation equipment properly configured for hot weather conditions. In addition, the inspectors reviewed Problem Investigation Process reports (PIP)s to verify the adequacy of planned and implemented corrective action, including PIP M-02-2462, Turbine Building Siding Near Offsite Bus Line Came Loose During High Winds.

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 when the redundant trains were inoperable or out of service. For the emergency diesel generator (EDG) support systems, the walkdowns were performed while the opposite train EDG was declared inoperable for maintenance and testing.

- standby shutdown facility (SSF)
- Unit 1 auxiliary feedwater (CA) pumps with the SSF inoperable
- Unit 1B EDG starting air system and service water cooling supply

The inspectors assessed conditions such as equipment alignment (i.e., valve positions, damper positions, and breaker alignment) and system operational readiness

(i.e., control power and permissive status) that could affect operability of these systems. The inspectors also reviewed the licensee's corrective action system and component health database for previously identified conditions adverse to quality to assess the licensee's ability to identify and correct problems.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

Fire Protection Walkdowns

a. Inspection Scope

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

- Unit 1A and 1B EDG rooms
- Unit 1 spent fuel pool area
- Unit 1 spent fuel cooling pump and heat exchanger room
- Unit 2 reactor trip breaker penetration room
- Unit 2 service water pump areas
- SSF
- Unit 1 CA pump room

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed implementation of licensee programs, tests, and inspection activities to provide assurance of the integrity and operability of the Unit 2A and 2B component cooling water (KC) system/ nuclear service water (RN) system heat exchangers. The inspection included visual inspection of the work in progress, a review of heat exchanger tube plugging history, and review of post maintenance testing of the subject heat exchangers. The inspectors reviewed the licensee's evaluation concerning moderate corrosion pitting damage identified in the raw water side of the 2A heat exchanger. Based on a pulled tube analysis and resulting new indication sizing technique, the licensee concluded that there had been a substantial decrease in the overall ID pit growth (depth) since the previous outage. Results for the 2B heat exchanger were similar to the 2A. The inspectors also reviewed documentation to confirm that the licensee had continued to meet their commitments for Generic Letter 89-13, Service Water System Problems Affecting Safety Related Equipment. In

addition, the inspectors reviewed licensee corrective actions identified in PIPs associated with the above components.

The inspectors also reviewed documentation to confirm that ongoing frequent heat exchanger inspection/maintenance activities, test methodology, system performance monitoring, operational guidance, and system chemical treatments were consistent with accepted industry practices.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

On May 15, 2002, the inspectors observed an active simulator examination and the subsequent evaluation and critique by the instructors during licensed operator requalification training. The inspection focused on high-risk operator actions, emergency plan implementation, and lessons learned from previous plant experiences. The simulator examination evaluated operator response to EP/1/A/5500/E-2, Faulted Steam Generator Isolation, EP/1/A/5000/FR-Z.1, Response to High Containment Pressure, as well as various system failures and abnormal procedures. The inspectors assessed whether appropriate feedback was provided to the licensed operators.

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-02-1877	Unit 2 A residual heat removal (ND) pump discharge check valve failure (2ND23)
M-02-2057	Unit 2 excore detector channel N-44 axial flux difference deviation from expected value
M-01-4108	Unit 2 turbine-driven CA pump steam supply drain line isolation valve (2SA77) failure to close

M-02-0759	Failure of main steam safety valve 2SV-21 during setpoint testing
M-02-0800	2NCLP-5920 reactor coolant (NC) system loop D wide range T-hot failed high
M-02-2086	"F" instrument air compressor motor failure

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, due to emergent or planned work activities, as related to 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.

The inspectors also reviewed work orders (WOs) and PIPs to verify the adequacy of planned and implemented corrective actions, including PIP M-02-2382, abnormal thermography indications found in Unit 1 6900 volt switchgear.

<u>PIP Number/ WO/Procedure</u>	<u>Title/Description</u>
M-02-1776/ WO 98488224	Repair Unit 2 pressurizer pressure master controller (planned)
M-02-1740 WO 98227798	Troubleshoot Unit 2 D steam generator feedwater regulating valve (2CF17) (emergent)
M-02-2370	Unit 1 RN system high differential pressure troubleshooting (emergent)
M-02-2466 WO 98500913	Troubleshoot and repair delta-Unit 1 T/Tave protection channel IV (emergent)
WO 98458728	EVCA vital battery discharge testing (planned)
M-02-2093	Unit 1 foreign material and boron identified in emergency core cooling system (ECCS) sump (emergent)

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.

PIP Number Title/Description

M-02-1740	Entry into AP/2/A/5500/06, Loss of Steam Generator Feedwater, during operator response to a feedwater decrease to the Unit 1D steam generator on March 27, 2002
M-02-2282	Entry into AP/1/A/5500/12, Loss of Letdown, Charging or Seal Injection, during operator response to a change in charging flow on Unit 1 on April 30, 2002
M-02-2438	Entry in AP/1/A/5500/10, NC System leakage within the Capacity of Both Chemical and Volume Control (NV) Pumps, during operator response to a Unit 2 NC system leak on May 10, 2002

The inspectors also reviewed PIPs to verify the adequacy of planned and implemented corrective actions. Included was PIP M-02-2435, which concerned an operator's mistaken start of the Unit 2A NV pump in lieu of starting the Unit 2 positive displacement pump.

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.

The inspectors also reviewed PIPs to verify the adequacy of planned and implemented corrective action, including PIP M-02-2222, Fan Failure on Vital Battery Charger EVCC, and PIP M-02-2366, Gas Accumulation Found in the ND Auxiliary Containment Spray (NS) Riser.

<u>PIP Number</u>	<u>Title/Description</u>
M-02-1877	Immediate operability for failure of 2A ND pump discharge check valve
M-02-2057	Unit 2 N44 excore power detector exhibiting step changes affecting quadrant power tilt requiring manual determination of axial flux difference
M-02-0167	Shunt trip failure on safety injection (NI) system breaker
M-02-2093	Unit 1 foreign material and boron identified in ECCS Sump
M-02-1969	Unit 2 standby makeup pump indicated flow with pump off

c. Findings

No findings of significance were identified.

1R16 Operator Workarounds

a. Inspection Scope

The inspectors evaluated selected operator workarounds for potential affects on the functionality of mitigating systems. The workarounds were reviewed to determine: (1) if the functional capability of the system or human reliability in responding to an initiating event was affected; (2) the affect 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. The inspectors reviewed abnormal plant configurations and conditions to verify if the conditions could increase the likelihood of an initiating event or affect multiple mitigating systems.

In addition, the inspectors reviewed the cumulative effects 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 Modificationsa. Inspection Scope

The inspectors reviewed a modification to the Unit 1 feedwater pump speed control differential pressure program. The modification was performed to eliminate unacceptable flow induced vibrations on one of the four feedwater regulating valves (1CF23). The inspectors assessed whether: (1) the design bases, licensing bases, and performance capability of risk significant SSCs had degraded through the modification; and (2) the modification, which was performed during risk significant configurations, placed the plant in an unsafe condition.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (PMT)a. Inspection Scope

The inspectors reviewed PMT instructions 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. The inspectors also reviewed PIPs to verify the adequacy of planned and implemented corrective actions, including PIP M 02-5402, Safety-Related Instrument Panel Door Interferences due to Power Supply Installation.

<u>WO Number</u>	<u>Title/Description</u>
WO 98413203	SSF diesel generator outage maintenance work activities
WO 98454676	Unit 2A EDG down day preventive maintenance work activities
WO 98435525	ND/NS system dose reduction flush
WO 98452460	PT 1RN-171B, verify static torque
WO 98424007	1B CA pump motor cooler inspection/test
WO 98489707	2B ND pump discharge check valve clearance verification

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activitiesa. Inspection Scope

During the inspection period, the inspectors continued the review of refueling and outage related activities initiated during the previous inspection period and documented in Inspection Report 50-369,370/01-05. Final refueling and unit startup parameters were monitored during increased risk periods. Control rod drop time test results were reviewed and zero power physics test results and test conditions were also evaluated. The inspectors monitored the unit restart from the control room and evaluated core parameters utilizing the operator aid computer. The following procedures were also reviewed during the licensee's restart of Unit 2:

<u>Procedure</u>	<u>Title/Description</u>
AP/2/A/5500/19	Loss of RHR or RHR system leakage
OP/2/A/6100/001	Controlling procedure for Unit 2 startup
OP/2/A/6100/SU-13	Heatup to 350°F
OP/2/A/6100/SU-17	Aligning CA for standby readiness
OP/2/A/6100/SU-19	Heatup to 557°F
OP/2/A/6100/SU-20	Mode 1 and 2 checklist
OP/0/A/6700/006	Personnel air lock operations

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing.1 Routine Surveillance Testinga. 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 Technical Specification (TS) requirements, Updated Final Safety Analysis Report (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</u>	<u>Title/Description</u>
PT/2/A/4200/002E	Upper Containment Personnel Air Lock (PAL) Seals and Interlock Test
PT/1/A/4150/001B	Reactor Coolant Leakage Calculation
PT/1/A/4350/002B	1B EDG Operability Test
PT/2/A/4600/003D	Monthly Neutron Flux Calculation
PT/2/A/4150/001B	Reactor Coolant Leakage Calculation
PT/2/A/4209/001C	Standby Makeup Pump Flow Periodic Test
PT/2/A/4601/002	Control Verifications for Pressurizer Pressure

The inspectors also reviewed PIPs to verify the adequacy of planned and implemented corrective actions. Included was PIP M-02-2361 concerning an incorrect switch being manipulated while performing T-cold wide range temperature calibration, resulting in the channel II pressurizer high pressure reactor trip bistable actuating.

b. Findings

No findings of significance were identified.

.2 Inservice Surveillance Testing

a. Inspection Scope

The inspectors observed the performance of PT/2/A/4204/001A, 2A ND Pump Quarterly Test . The inspectors evaluated the effectiveness of the licensee's American Society of Mechanical Engineers (ASME) Section XI testing program to determine equipment availability and reliability. The inspectors evaluated selected portions of the following areas: (1) testing procedures; (2) acceptance criteria; (3) testing methods; (4) compliance with the licensee's in-service testing program, TS, Selected Licensee Commitments, and code requirements; (5) range and accuracy of test instruments; and (6) required corrective actions. The inspectors also assessed whether corrective actions were taken as applicable.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed the licensee’s emergency preparedness training evolution conducted on May 8, 2002. The inspectors reviewed the drill scenario narrative to identify the timing and location of classification, notification, and protective action recommendation (PAR) development activities. During the drill, the inspectors assessed the adequacy of event classification and notification activities. The licensee’s drill critique was also observed. The inspectors assessed the licensee’s evaluation of drill performance with respect to performance indicators. The inspectors verified that identified drill performance deficiencies were entered into the licensee’s corrective action program.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

.1 Reactor Safety PI Verification

a. Inspection Scope

The inspectors reviewed data for the following three Reactor Safety PIs for the period of January 1, 2001, through March 31, 2002, to verify the accuracy of the PIs reported during that period. PI definitions and guidance contained in NEI 99-02, Regulatory Assessment Indicator Guideline, Rev. 1, were used while assessing the accuracy in reported data.

<u>Cornerstone</u>	<u>PI</u>
Mitigating Systems	Safety System Unavailability, Auxiliary Feedwater System
Mitigating Systems	Safety System Unavailability, Emergency AC Power System
Barrier Integrity	Reactor Coolant System Leak Rate

To verify the PI data, the inspectors reviewed control room and chemistry logs, TS Action Item Log entries, system availability information, and maintenance rule data for the aforementioned time frame.

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up

(Closed) Licensee Event Report (LER) 50-369/02-01: Manual Reactor Trip in Response to Loss of Feedwater Valve Control Power. On March 4, 2002, the McGuire Unit 1A Steam Generator experienced decreasing water level when valves in the main feedwater supply failed closed upon loss of electrical power to their control circuitry. The event described in this LER was previously reviewed in NRC Inspection Report 50-369,370/01-05. No new issues were identified by the LER.

4OA5 Other

Review of Independent Spent Fuel Storage Installation (ISFSI) Vertical Concrete Cask (VCC) Pad Construction

a. Inspection Scope (60853)

The inspectors reviewed construction activities associated with the ISFSI VCC concrete pad. The inspectors measured the rebar size, spacing, splice length, supporting chair, and the concrete coverage protection on the top, side, and bottom. The inspectors evaluated concrete form installation including depth, straightness, chamber, and horizontal bracing. The inspectors observed the concrete pour, mixed flow vibration, slump test, air contained test, temperature measurement, cylinder samples taken for compression tests, leveling, surface finishing, and curing compound application. The inspectors also reviewed the licensee quality control (QC) inspectors' reports for pre-pour inspection and concrete pour record. The inspectors reviewed the calculation of the VCC pad analysis, Site Work Specification for ISFSI Phase II, and QC inspectors' qualification and certification. The inspectors compared the observation results to the project construction specification; the design drawings; and standards, codes, and criteria of the American Concrete Institute and the American Society for Testing Materials.

b. Findings

No findings of significance were identified.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Mr. B. Barron, Site Vice President, McGuire Nuclear Station, at the conclusion of the inspection on June 21, 2002. 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.

.2 License Renewal Meeting

The inspectors attended the nuclear Regulatory Commission's public meeting on the Draft Supplemental Environmental Impact Statement (SEIS) for McGuire Units 1 and 2 on June 12, 2002. This meeting was open to the public. The draft SEIS is available on the NRC web from the NRC's document system (ADAMS) (Accession No. ML021300281). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

40A7 Licensee Identified Violations

The following finding of very low significance was identified by the licensee and is a violation of NRC requirements, which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as a non-cited violation (NCV).

If you deny this Non-cited Violation, you should provide a response with the basis for your denial, within 30 days of the date of this inspection report, to the United States 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.

NCV Tracking Number

Requirement Licensee Failed to Meet

50-369/01-05-02
(second example)

Technical Specification 5.4.1.a. requires written procedures be implemented covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Regulatory Guide 1.33 requires procedures for surveillance tests. Contrary to this requirement, a second example of a NRC identified NCV of TS 5.4.1.a. was identified for failure to perform adequate inspections of the ECCS recirculation sump. Specifically, the performance of PT/1/A/4700/056, Unit 1 Containment Building Civil Structures Inspection, failed to identify the accumulation of boron and other foreign material within in the ECCS sump until corrective actions by the licensee identified it on April 18, 2002. The finding had a credible impact on safety by reducing the reliability of the ECCS by ingestion of boric acid or other foreign material into the ECCS pump suction. Additionally, if left uncorrected, the continued accumulation of boric acid within the ECCS recirculation sump could result in a loss of function for the ECCS injection pumps or loss of adequate suction to the pumps. The finding was of very low safety significance because mitigation systems were concluded to have been past operable based on engineering analysis performed by the licensee. Because the finding is of very low safety significance and the finding

was captured in the licensee's corrective action program as PIP M-02-2093, this finding is being treated as a NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy and identified as a second example of NCV 50-370/01-05-02: Inadequate Performance of ECCS Recirculation Sump Inspection.

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Barron, B., Vice President, McGuire Nuclear Station
Bradshaw, S., Superintendent, Plant Operations
Bramblett J., Chemistry Manager
Brenton D., Shift Operations Manager
Bryant, J., Licensing Engineer
Correll J. , Radiation Protection (RP) Support Supervisor
Dolan, B., Manager, Safety Assurance
Edgemon M. , Field Operations Supervisor
Evans W., Security Manager
Geer, T., Manager, Reactor Electrical Systems Engineering
Hanes L. , General Office, Health Physicist
Jamil, D., Station Manager, McGuire Nuclear Station
Loucks L. , Radiation Protection Manager
Patrick, M., Superintendent, Maintenance
Peele, J., Manager, Engineering
Sheffield, R., NDE Supervisor
Sloan H. , RP Shift/Effluent Controls Supervisor
Thomas, J., Manager, Regulatory Compliance
Thomas, K., Superintendent, Work Control
Travis, B., Manager, Mechanical Civil Engineering
Warlick, J., Manager, Inspection Welding Services

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

50-370/01-05-02	NCV	Inadequate Performance of ECCS Recirculation Sump Inspection (licensee identified second example of NRC identified violation) (Section 40A7)
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Closed

50-369/02-01	LER	Manual Reactor Trip in Response to Loss of Feedwater Valve Control Power (Section 40A3)
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LIST OF ACRONYMS

AP	-	Abnormal Procedure
ASME	-	American Society of Mechanical Engineers
ATWS	-	Anticipated Transients Without Scram
CA	-	Auxiliary Feedwater
CCWS	-	Component Cooling Water System

CFR	-	Code of Federal Regulations
CRDM	-	Control Rod Drive Mechanism
CPCS	-	Containment Pressure Control System
DAW	-	Dry Active Waste
DPI	-	Digital Rod Position Indication
ECCS	-	Emergency Core Cooling System
ED	-	Electronic Dosimetry
EDG	-	Emergency Diesel Generator
EOC	-	End Of Cycle
EP	-	Emergency Procedure
PERI	-	Electric Power Research Institute
ESF	-	Engineered Safeguards Feature
EVCC	-	Vital Battery C
FAC	-	Flow Accelerated Corrosion
FWST	-	Fueling Water Storage Tank
HP	-	Health Physics
HRA	-	High Radiation Area
IR	-	Inspection Report
ISFSI	-	Independent Spent Fuel Storage Installation
ISI	-	In Service Inspection
KC	-	Component Cooling Water
KV	-	Kilo Volt
LER	-	Licensee Event Report
LTOP	-	Low Temperature Overpressure Protection
MGTM	-	Temporary Modifications
MT	-	Magnetic Particle
MSIV	-	Main Steam Line Isolation Valves
NC	-	Reactor Coolant
ND	-	Residual Heat Remova
NI	-	Safety Injection
NOUE	-	Notice of Unusual Event
NS	-	Containment Spray
NSCW	-	Nuclear Service Cooling Water System
NV	-	Chemical and Volume Control
OTDT	-	Over Temperature Delta Temperature
PAL	-	Personnel Air Lock
PAR	-	Protective Action Recommendation
PCP	-	Process Control Program
PI	-	Performance Indicator
PIP	-	Problem Investigation Process report
PMT	-	Post-Maintenance Testing
PORV	-	Power Operated Relief Valve
PT	-	Liquid Penetrant
PWSCC	-	Primary Water Stress Corrosion Cracking
QC	-	Quality Control
RCA	-	Radiological Control Area
RN	-	Nuclear Service Water
RWP	-	Radiation Work Permit
SEIS	-	Supplemental Environmental Impact Status

SG	-	Steam Generator
SSC	-	Structures, Systems, Components
SSF	-	Standby Shutdown Facility
SSPS	-	Solid State Protection System
TS	-	Technical Specifications
TSSR	-	Technical Specifications Surveillance Requirement
UFSAR	-	Updated Final Safety Analysis Report
UT	-	Ultrasonic
VCC	-	Vertical Concrete Cask
VCT	-	Volume Control Tank
VHRA	-	Very High Radiation Area
WO	-	Work Order
WPM	-	Work Process Manual

LIST OF DOCUMENTS REVIEWED

Documents Reviewed in Section 4OA5

Specification No. MCS-1140.00-00-0011, Specification for the McGuire Nuclear Station

Independent Spent Fuel Storage Installation Site Work PHASE II

Calculation No. MCC-1140.00-00-0020, Rev. 0, VCC Construction Pad Analysis

Drawing No. MC-1030-10.04-23, Rev. B, Dry Cask Storage Project VCC Construction Pad
Concrete and Reinforcing

PIP M-02-02660

Prepour Site Inspection for Pour No. VCC-1, dated May 20, 2002

Record of Concrete Placed for Pour No. VCC-1, dated May 21, 2002

Qualification and Certification Records for Quality Control Inspectors