UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

December 2, 2010

Mr. Regis T. Repko
Vice President
Duke Energy Carolinas, LLC
McGuire Nuclear Station
MCC01VP/12700 Hagers Ferry Road
Huntersville, NC 28078-8985

SUBJECT: MCGUIRE NUCLEAR STATION - NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000369/2010006 AND 05000370/2010006

Dear Mr. Repko:

On October 21, 2010, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your McGuire Nuclear Station. The enclosed report documents the inspection findings, which were discussed on October 21, 2010, with you and other members of your staff.

The inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and with the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of plant equipment and activities, and interviews with personnel.

On the basis of the samples selected for review, the inspectors concluded that in general, problems were properly identified, evaluated, and corrected. There was one Green finding identified which was determined to be a violation of NRC requirements. However, because of the very low safety significance and because it was entered into your corrective action program, the NRC is treating the violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the NRC's Enforcement Policy. If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, 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 Nuclear Station. In addition, if you disagree with the cross cutting aspect assigned to the finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement to the Regional Administrator, Region II, and the NRC Resident Inspector at the McGuire Nuclear Station.

In accordance with 10 CFR 2.390 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 the 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/

George T. Hopper, Chief
Reactor Projects Branch 7
Division of Reactor Projects

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

Enclosure: Inspection Report 05000369/2010006, 05000370/2010006
w/Attachment: Supplemental Information

cc w/encl. (see page 3)

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Letter to Regis T. Repko from George T. Hopper dated December 2, 2010

SUBJECT: MCGUIRE NUCLEAR STATION - NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000369/2010006 AND 05000370/2010006

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	50-369, 50-370
License No.:	NPF-9, NPF-17
Report No.:	05000369/2010006, 05000370/2010006
Licensee:	Duke Energy Carolinas, LLC
Facility:	McGuire Nuclear Station, Units 1 and 2
Location:	Huntersville, NC 28078
Dates:	October 4 - 21, 2010
Inspectors:	R. Taylor, Senior Project Inspector (Team Leader) J. Heath, Resident Inspector S. Nihn, Senior Project Engineer S. Makor, Reactor Inspector
Approved by:	G. Hopper, Chief, Reactor Projects Branch 7 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000369/2010006, 05000370/2010006; 10/04/2010 - 10/21/2010: McGuire Nuclear Station; Biennial inspection of the problem identification and resolution program.

The inspection was conducted by a senior project inspector, senior project engineer, resident inspector, and a reactor inspector. One Green finding was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). The cross-cutting aspect was determined using IMC 0310, "Components Within the Cross-Cutting Areas." Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

Problem Identification and Resolution

The inspectors concluded that, in general, problems were properly identified, evaluated, prioritized, and corrected. The licensee was effective at identifying problems and entering them into the corrective action program (CAP) for resolution, as evidenced by the relatively few deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee, during the review period. The licensee effectively used risk in prioritizing the extent to which individual problems would be evaluated and in establishing schedules for implementing corrective actions. Generally, prioritization and evaluation of issues were adequate, formal root cause evaluations for significant problems were adequate, and corrective actions specified for problems were acceptable. However, the inspectors identified several examples where issues were not prioritized in accordance with site CAP guidance and two examples of evaluations which lacked appropriate rigor. Overall, corrective actions developed and implemented for issues were generally effective and implemented in a timely manner.

The inspectors determined that overall, audits and self-assessments were adequate in identifying deficiencies and areas for improvement in the CAP, and appropriate corrective actions were developed to address the issues identified. Operating experience usage was found to be generally acceptable and integrated into the licensee's processes for performing and managing work, and plant operations.

Based on discussions and interviews conducted with plant employees from various departments, the inspectors determined that personnel at the site felt free to raise safety concerns to management and use the CAP to resolve those concerns.

Cornerstone: Mitigating Systems

- Green. The NRC identified a Non-cited Violation (NCV) of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, for the licensee's failure to correct a condition adverse to quality in that a single vulnerability failure of the fuel transfer (FD) system Niagara flow meters identified in 2003 could potentially restrict fuel flow to the EDGs which would impact their safety function. In addition, these flow meters were identified as a Category A risk component which required preventative maintenance (PM) strategy and no PM or inspection for these flow meters was ever performed. This issue was documented in the corrective action program as PIP M-10-6442 and the license intends to replace the flow meters for 1A EDG and 2A EDG in 2011.

  The inspectors concluded that the failure to correct a condition adverse to quality for the FD system flow meters identified in 2003 was a performance deficiency (PD). The PD was more than minor because it was associated with the Equipment Performance attribute of the Mitigating Systems Cornerstone in that it adversely affected the reliability of the EDGs to respond to initiating events to prevent undesirable consequences in that the flow meters could potentially restrict fuel flow to the EDGs which would impact their safety function. The finding was determined to have very low safety significance (Green) because there was no loss of safety function of any EDG train. The inspectors determined that the cross-cutting area of Human Performance, component of Work Control, and aspect of Work Planning was applicable because the licensee did not incorporate risk insights in their plan work activities to remove this potential single vulnerability failure of Niagara flow meters in a timely manner. H.3(a) (4OA2)

REPORT DETAILS

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

a. Assessment of the Corrective Action Program

(1) Inspection Scope

The inspectors reviewed the licensee's CAP procedures which described the administrative process for initiating and resolving problems primarily through the use of condition reports (PIPs). To verify that problems were being properly identified, appropriately characterized, and entered into the CAP, the inspectors reviewed PIPs that had been issued between March 2008 and October 2010, including a detailed review of selected PIPs associated with the following risk-significant systems: Service Water (RN), Essential Auxiliary Power (EAP), and Emergency Diesel Generators (EDGs). Where possible, the inspectors independently verified that the corrective actions were implemented as intended. The inspectors also reviewed selected common causes and generic concerns associated with root cause evaluations to determine if they had been appropriately addressed. The inspectors selected a representative number of PIPs that were identified and assigned to the major plant departments, including operations, maintenance, engineering, health physics, chemistry, and security to ensure that samples were reviewed across all cornerstones of safety identified in the NRC's Reactor Oversight Process (ROP). These PIPs were reviewed to assess each department's threshold for identifying and documenting plant problems, thoroughness of evaluations, and adequacy of corrective actions. The inspectors reviewed selected PIPs, verified corrective actions were implemented, and attended meetings where PIPs were screened for significance to determine whether the licensee was identifying, accurately characterizing, and entering problems into the CAP at an appropriate threshold.

The inspectors conducted plant walkdowns of equipment associated with the selected systems and other plant areas to assess the material condition and to look for any deficiencies that had not been previously entered into the CAP. The inspectors reviewed PIPs, maintenance history, completed work orders (WOs) for the systems, and reviewed associated system health reports. These reviews were performed to verify that problems were being properly identified, appropriately characterized, and entered into the CAP. Items reviewed generally covered a two-year period; however, in accordance with the inspection procedure, a five-year review was performed for selected systems for age-dependent issues.

Control Room walk-downs were also performed to assess the main control room deficiency list and to ascertain if deficiencies were entered into the CAP and tracked to resolution. Operator Workarounds and Operator Burden screenings were reviewed, and the inspectors verified compensatory measures for deficient equipment which were being implemented in the field.

The inspectors conducted a detailed review of selected PIPs to assess the adequacy of the root-cause and apparent-cause evaluations of the problems identified. The inspectors reviewed these evaluations against the descriptions of the problem described in the PIPs and the guidance in licensee procedure NSD 212, "Cause Analysis." The inspectors assessed if the licensee had adequately determined the cause(s) of identified

problems, and had adequately addressed operability, reportability, common cause, generic concerns, extent-of-condition, and extent-of-cause. The review also assessed if the licensee had appropriately identified and prioritized corrective actions to prevent recurrence.

The inspectors reviewed selected industry operating experience items, including NRC generic communications, to verify that they had been appropriately evaluated for applicability and that issues identified through these reviews had been entered into the CAP.

The inspectors reviewed site trend reports, to determine if the licensee effectively trended identified issues and initiated appropriate corrective actions when adverse trends were identified.

The inspectors attended various plant meetings to observe management oversight functions of the corrective action process.

Documents reviewed are listed in the Attachment.

(2) Assessment

Identification of Issues

The inspectors determined that the licensee was generally effective in identifying problems and entering them into the CAP and there was a low threshold for entering issues into the CAP. This conclusion was based on a review of the requirements for initiating PIPs as described in licensee procedure NSD 208, "Problem Investigation Process," management expectation that employees were encouraged to initiate PIPs for any reason. Trending was generally effective in monitoring equipment performance. Site management was actively involved in the CAP and focused appropriate attention on significant plant issues. Based on reviews and walkdowns of accessible portions of the selected systems, the inspectors determined that system deficiencies were being identified and placed in the CAP.

Prioritization and Evaluation of Issues

Based on the review of PIPs sampled by the inspectors during the onsite period, the inspectors concluded that problems were generally prioritized and evaluated in accordance with the licensee's CAP procedures as described in the PIP categorization guidance in NSD 208. Each PIP was assigned a priority level (category) by the Centralized Screening Team and adequate consideration was given to system or component operability and associated plant risk.

The inspectors determined that station personnel had conducted root cause and apparent cause analyses in compliance with the licensee's CAP procedures and assigned cause determinations were appropriate, considering the significance of the issues being evaluated. A variety of formal causal-analysis techniques were used depending on the type and complexity of the issue consistent with NSD 212, Cause Analysis.

The inspectors also identified several examples where the documentation and prioritization of problems did not meet the guidance in procedure NSD 208. However, because these examples did not adversely affect any ROP cornerstone objectives, the inspectors determined these violations of NSD 208 were of minor significance and not subject to enforcement action in accordance with the NRC's Enforcement Policy.

- PIPs associated with LERs have been improperly screened as Category 2/3 when the screening criteria (reportable with written LER required) for Category 1 was met. This issue was entered into the licensee's corrective action program as PIP M-10-06533.

- Inspectors identified several PIPs flagged as maintenance preventable functional failures (MPFF's) that were improperly screened as Category 4. Per NSD 208, PIPs flagged as MPFFs should be screened as Category 3. This issue was entered into the licensee's corrective action program as PIP M-10-06395.

- Inspectors identified several examples of PIPs incorrectly flagged as not being condition adverse to quality even though they met the NSD 208 definition of condition adverse to quality. This issue was entered into the licensee's corrective action program as PIP-M-10-06703.

Effectiveness of Corrective Actions

Based on a review of corrective action documents, interviews with licensee staff, and verification of completed corrective actions, the inspectors determined that overall, corrective actions were timely, commensurate with the safety significance of the issues, and effective, in that conditions adverse to quality were corrected and non-recurring. For significant conditions adverse to quality, the corrective actions directly addressed the cause and effectively prevented recurrence in that a review of performance indicators, PIPs, and effectiveness reviews demonstrated that the significant conditions adverse to quality had not recurred. Effectiveness reviews for corrective actions to prevent recurrence (CAPRs) were sufficient to ensure corrective actions were properly implemented and were effective. However, the inspectors did identify one finding related to the licensee's failure to correct a condition adverse to quality related to failure of the fuel transfer system (FD) flow meters.

(3) Findings

Introduction: The NRC identified a Green NCV of 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, for the licensee's failure to correct a condition adverse to quality in that a single vulnerability failure of the FD Niagara flow meters identified in 2003 could potentially render both unit emergency diesel generators (EDGs) inoperable.

Description: In 2003, during an operating experience evaluation, the licensee identified that McGuire had a single flow meter in the FD system between the transfer pump and the day tank. The licensee identified that the rotating disc in the flow meter was subject to failure restricting flow to the EDG day tanks. This restricted flow condition could cause insufficient flow to the day tank resulting in inadequate fuel supply to the EDG. A PIP was created with a corrective action to eliminate the FD flow meters. However, in late 2004, the elimination of the flow meters was reviewed and cancelled due to the low priority during a 2005 modification schedule review. These flow meters were identified

as Category A risk components which required a documented preventative maintenance (PM) strategy. The inspectors noted that no PMs or inspections were ever performed. No additional corrective actions were identified and the PIP was considered closed. The inspectors determined that no engineering evaluation was performed to justify the decision and no preventative maintenance or inspection schedules were initiated to examine and determine the condition of these FD flow meters. In 2007, the 2004 modifications were reactivated to replace these flow meters with welded stainless steel piping via work orders (WOs).

The inspectors noted that the 1B and 2B FD flow meters were removed in 2008; however, the 1A and 2A FD flow meters remained in service. Removing these flow meters had been delayed more than five times, and was recently re-scheduled from 2010 to 2012. Again, no technical justification for the delay was performed nor was any PM of these flow meters performed or scheduled. The inspectors determined that the licensee's failure to correct a condition adverse to quality identified in 2003, which was a single vulnerability failure of the FD Niagara flow meters, could potentially restrict fuel flow to the EDGs which would impact their safety function. This issue was documented in the corrective action program as PIPs 03-02179 and 07-03359.

Analysis: The inspectors concluded that the failure to correct a condition adverse to quality for the FD system flow meters identified in 2003 was a performance deficiency. The performance deficiency was more than minor because it was associated with the Equipment Performance attribute of the Mitigating Systems Cornerstone in that it adversely affected the reliability of the EDGs system to respond to initiating events by potentially restricting fuel flow to the EDGs. The finding was screened using Manual Chapter 0609.04, "Phase1 – Initial Screening and Characterization of Findings," and was determined to have a very low safety significance (Green) because there was no loss of safety function of any train of EDG. The inspectors determined that the cross-cutting area of Human Performance, component of Work Control, and aspect of Work Planning was applicable because the licensee did not incorporate risk insights in their plan work activities to remove this potential single vulnerability failure of Niagara flow meters in a timely manner [H.3(a)].

Enforcement: 10 CFR 50, Appendix B, Criterion XVI, Corrective Action, requires, in part, that measures be established to assure that conditions adverse to quality, such as deficiencies, are corrected. Contrary to the above, as of October 4, 2010, the licensee failed to correct a condition adverse to quality in that a failure of the FD flow meters that was identified in 2003 could potentially prevent the 1A and 2A EDGs from performing their safety function. Because the finding was determined to be of very low safety significance and has been entered into the licensee's corrective action program (PIP 10-6442), this violation is being treated as an NCV consistent with Section 2.3.2 of the Enforcement Policy: NCV 05000369, 370/2010-006-01, Failure to Correct a Condition Adverse to Quality Associated with the Emergency Diesel Generators Fuel Transfer System Niagara Flow Meters.

b. Assessment of the Use of Operating Experience (OE)

(1) Inspection Scope

The inspectors examined licensee programs for reviewing industry operating experience, reviewed licensee procedure NSD 204, "Operating Experience Program," reviewed and

selected PIPs to assess the effectiveness of how external and internal operating experience data was handled at the plant. In addition, the inspectors selected a sample of operating experience documents (e.g., NRC generic communications, 10 CFR Part 21 reports, licensee event reports, vendor notifications, and plant internal operating experience items, etc.), which had been issued since March 2008, to verify whether the licensee had appropriately evaluated each notification for applicability, and whether issues identified through these reviews were entered into the CAP. Documents reviewed are listed in the Attachment.

(2) Assessment

Based on a review of documentation related to review of OE issues, the inspectors determined that the licensee was generally effective in screening OE for applicability to the plant. Industry OE was evaluated and relevant information was then forwarded to the applicable department for further action or informational purposes. OE issues requiring action were entered into the CAP for tracking and closure. In addition, OE was included in all apparent cause and root cause evaluations in accordance with licensee procedure NSD 204.

(3) Findings

No findings were identified.

c. Assessment of Self-Assessments and Audits

(1) Inspection Scope

The inspectors reviewed audit reports and self-assessment reports, including those which focused on problem identification and resolution, to assess the thoroughness and self-criticism of the licensee's audits and self assessments, and to verify that problems identified through those activities were appropriately prioritized and entered into the CAP for resolution in accordance with licensee procedure NSD 208. Documents reviewed are listed in the Attachment.

(2) Assessment

The inspectors determined that the scopes of assessments and audits were adequate. Self-assessments were generally detailed and critical, as evidenced by findings consistent with the inspectors' independent review. The inspectors verified that PIPs were created to document all areas for improvement and findings resulting from the self-assessments, and verified that actions had been completed consistent with those recommendations. Generally, the licensee performed evaluations that were technically accurate. Site trend reports were thorough and a low threshold was established for evaluation of potential trends, as evidenced by the PIPs reviewed that were initiated as a result of adverse trends.

(3) Findings

No findings were identified.

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

The inspectors interviewed 16 randomly selected on-site workers regarding their knowledge of the CAP and their willingness to write PIPs or raise safety concerns. During technical discussions with members of the plant staff, the inspectors conducted interviews to develop a general perspective of the safety-conscious work environment at the site. The interviews were also conducted to determine if any conditions existed that would cause employees to be reluctant to raise safety concerns. The inspectors reviewed the licensee's Employee Concerns Program (ECP) and interviewed the ECP coordinator. Additionally, the inspectors reviewed a sample of PIPs generated as a result of issued identified through the ECP to verify that concerns were being properly reviewed.

(2) Assessment

Based on the interviews conducted and the PIPs reviewed, the inspectors determined that licensee management emphasized the need for all employees to identify and report problems using the appropriate methods established within the administrative programs, including the CAP and ECP. These methods were readily accessible to all employees. Based on discussions conducted with a sample of plant employees from various departments, the inspectors determined that employees felt free to raise issues, and that management encouraged employees to place issues into the CAP for resolution. The inspectors did not identify any reluctance on the part of the licensee staff to report safety concerns.

(3) Findings

No findings were identified.

4OA6 Exit

Exit Meeting Summary

On October 21, 2010, the inspectors presented the inspection results to Mr. Regis Repko and other members of the licensee staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:
S. Capps, Station Manager
C. Curry, Engineering Manager
D. Brewton, Operations Manager
K. Ashe, Regulatory Compliance Manager
R. Pocetti, Performance Improvement Manager
S. Snider, Engineering Manager
J. Nocin, MCE Engineering Manager
D. Brewer, Safety Assurance Manager
K. Crane, Regulatory Compliance
G. Houser, Cap Lead
J. Iddings, Maintenance Coordinator
J. Rumfelt, Programmatic/Execution Support Manager
J. Heffner, System Engineer
M. Cashion, Chemistry Scientist
J. Effinger, Licensing Specialist (Contractor)
T. Gardner, Assistant Shift Manager
D. Houser, System Engineer

NRC personnel:
J. Brady, Senior Resident Inspector

LIST OF REPORT ITEMS

Opened and Closed

05000369, 370/2010006-01	NCV	Failure to Correct a Condition Adverse to Quality Associated with Emergency Diesel Generators Fuel Transfer System Niagara Flow Meters (Section 4OA2 a. (3))

Attachment

LIST OF DOCUMENTS REVIEWED

Procedures

EDM 203, Equipment Reliability Health Monitoring, Assessing, and Action Planning, Revision 0
EDM 201, Risk Category Scoping, Health Group and ER Strategy, Revision 13
EDM 210, Engineering Responsibilities for the Maintenance Rule, Revision 11
NSD 104, Materiel Condition/Housekeeping, Foreign Material Exclusion and Seismic Concerns
NSD 120, Equipment Reliability Process, Revision 1
NSD 203, Operability/Functionality, Revision 20
NSD 310, Requirements For The Maintenance Rule, Revision 9
NSD 208, Problem Investigation Program (PIP) Revision 32
NSD 204, Operating Experience Program (OEP) Description, Revision 010
Nuclear System Directive (NSD) 212, Cause Analysis
Engineering Directives Manual (EDM) -601, Engineering Change Manual
McGuire PRA Information, 9/22/10
PT/0/A/4350/008 E, SCI Vital I&C Battery Charger Performance Test, Revision 26
PT/0/A/4350/040 E, 125 VDC Vital I&C Battery Modified Performance Test Using BCT-2000, Revision 5
PT/0/A/4350/028 B, 125 Volt Vital Battery Quarterly Inspection, Revision 33

Condition Reports (CRs) Reviewed

M-97-01651	M-09-02197	M-10-01026	M-09-00091
M-97-04577	M-09-02202	M-10-02433	M-09-00807
M-00-04533	M-09-02216	M-10-02703	M-09-03924
M-03-02179	M-09-02419	M-10-02825	M-09-02392
M-06-02320	M-09-02822	M-10-02837	M-09-01318
M-07-00468	M-09-02965	M-10-02965	M-09-02607
M-07-00484	M-09-03047	M-10-03026	M-09-00326
M-07-02139	M-09-03026	M-10-03111	M-09-04132
M-07-03359	M-09-03034	M-10-03198	M-08-07057
M-07-06207	M-09-03410	M-10-03332	M-08-07134
M-07-06354	M-09-03422	M-10-03410	M-09-05201
M-08-05649	M-09-03744	M-10-03412	M-10-04927
M-08-06232	M-09-04137	M-10-03416	M-09-00969
M-08-06297	M-09-04138	M-10-03655	M-10-03655
M-08-06755	M-09-04131	M-10-04317	M-09-02844
M-08-07011	M-09-04403	M-10-04712	M-10-00062
M-08-07078	M-09-04870	M-10-04741	M-10-04629
M-08-07112	M-09-04889	M-10-04842	M-10-00411
M-09-00757	M-09-05330	M-10-05126	M-09-01554
M-09-00770	M-09-05555	M-10-05718	M-09-02202
M-09-00814	M-09-05586	M-10-05764	M-09-02846
M-09-01116	M-09-06024	M-10-06081	M-09-03137
M-09-01381	M-09-06081	M-10-06157	M-09-00576
M-09-01648	M-09-06771	M-10-06159	M-09-00814
M-09-01652	M-09-07451	M-10-06395	M-09-01715
M-09-01849	M-10-00164	M-10-06522	M-09-03721
M-09-01974	M-10-00260	M-10-02309	M-09-02252
M-09-02002	M-10-00655	M-07-05985	M-10-04344

M-08-07139	M-09-02216	M-09-04324	M-07-06203
M-10-05467	M-10-00185	M-10-01880	M-09-02370
M-09-06825	M-08-03371	M-07-01296	M-09-02117
M-06-01907	M-09-05123	M-06-01975	M-09-05948
M-07-04313	M-09-07236	M-06-00727	M-09-04134

Work Orders

0181629201	0183738406	0057162819	0057162846
0181629401	0183738407	0057162840	0057162847
0047320501	0183738402	0057162841	0057162848
0190713903	0047320501	0057162842	0057162849
0190713905	0050468601	0057162843	0057162850
0175074201	0057162839	0057162844	0057162837
0183738401	0057162812	0057162858	0057162858
0183738405	0057162813	0057162845	

Self-Assessments

QA-AUD-200813, “Corrective Action Program Audit
QA-AUD-200907, “Security/FFD/UAA/PADS”
QA-AUD-201001, "Radiation Control QA Audit"
SA08-HP-03, "ALARA Program Self Assessment"
SA08-NP-01, "Access Authorization, Personnel Access Data System (PADS) and Fitness for Duty Program", Revision 0
SA08-PS-01, "Transformer, Switchyard, and Grid Reliability Self-Assessment", Revision 1
SA09-DE-05S "Review of Cable Purchases with respect to IEEE 383"
SA09-HP-01, "Radioactive Material Control Self Assessment"
SA09-OD-01, "Self-Assessment of Root Cause Analysis Program"
SA09-OD-04S, "Common Cause Analysis Process", Revision 1
SA09-OE-01, "Nuclear Safety Culture Self Assessment"
SA09-TN-02S, "Effectiveness of CAPR's from RCA-07-01019, Qualification Maintenance and Tracking"
SA10-NP-01, "Safeguards Information Program Self Assessment," Revision 1
SA10-PS-05, "Inservice Testing Program Self Assessment"
SA10-TN-03S "Electrical Maintenance Training Content", Revision 1

Other Documents

PT/1/A/4350/017A, 1A D/G Fuel Oil Transfer Pump Performance Test, Revision 040
PT/1/A/4350/002 A, Diesel Generator 1A Operability Test, Revision 087
Work process Manual 403, SPOC Planning Guidelines, Revision 16
Orange Sticker Audit Report, 9/23/10
Work Arounds by Priority, 7/2010
G-SAG-SA-10-11, Revision 1, NRC Inspection procedure (IP) 92723 Readiness Assessment
Emergency EDG Units 1 and 2 System Health Report
RN Units 1 and 2 System Health Report
YC Units 1 and 2 System Health Report
125V AC/120 Units 1 and 2 System Health Report
MCC-1381.05-00-0200, U1/2 125 EPL Battery Sizing and Battery Charger Sizing, Revision 8
MCC-1381.05-00-0214, Available Fault Current on 125 VDC Vital I&C Buses, Revision 6

MCC-1381.05-00-0326, 125 EPL Battery Inter-Cell Connection, Revision 2
MCC-1381.05-00-0230, U1/2 EPL Voltage Drop Analysis, Revision 5
McGuire Nuclear Station Response to Station Blackout, April 17, 1989
McGuire Nuclear Station Updated Response to Station Blackout, April 4, 1990
MCS-1465.00-00-0019, Design Basis Specification for Station Blackout Rule, Revision 5
Section 93.10, Installation and Operating Instructions, 2004-02
IB 6.2.1.7D, Installation/Maintenance Instructions Medium-Voltage Power Circuit Breakers