UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8931

September 25, 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 PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 50-369/02-07 AND 50-370/02-07

Dear Mr. Barron:

On August 29, 2002, the NRC completed an inspection at your McGuire Nuclear Station. The enclosed report documents the inspection findings which were discussed on August 28, 2002, with Mr. D. Jamil and other members of your staff.

The inspection was an examination of activities conducted under your licenses 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 licenses. Within these areas, the inspection involved selected examination of procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, there were no findings of significance identified during the inspection. The inspection concluded that, in general, problems were properly identified, evaluated, and resolved within the problem identification and resolution program.

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/

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 Inspection Report 50-369,370/02-07
w/Attachment - Supplemental Information

cc w/encl:
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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.:	50-369,370/02-07
Licensee:	Duke Power Corporation
Facility:	McGuire Nuclear Station, Units 1 and 2
Location:	12700 Hagers Ferry Road Huntersville, NC 28078
Dates:	August 12-29, 2002
Inspectors:	Steven J. Vias, Senior Reactor Inspector (Team Leader) Eugene DiPaolo, Resident Inspector - McGuire Frank Jape, Senior Project Manager, Region II
Approved by:	R. Haag, Chief Reactor Projects Branch 1 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000369/02-07, IR 05000370/02-07, Duke Energy Corporation, on 8/12-28/2002, McGuire Nuclear Station, Units 1 & 2, biennial baseline inspection of the identification and resolution of problems.

The inspection was conducted by a senior regional reactor inspector, a senior regional project manager, and a resident inspector. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

Identification and Resolution of Problems

The inspectors concluded that, in general, problems were properly identified, evaluated, and corrected. The licensee was effective at identifying problems and entering them in the corrective action process. Generally, issues were prioritized and evaluated appropriately, and in a timely fashion. The evaluations of significant problems were of sufficient depth to determine the likely root or apparent causes, as well as address the potential extent of the circumstances contributing to the problem and provide a clear basis to establish corrective actions. Corrective actions that addressed the causes of problems were generally identified and implemented. Reviews of sampled operating experience information were comprehensive. Licensee audits and assessments were found to be adequately broad based and effective in providing management a tool for identifying adverse trends. Previous non-compliance issues documented as non-cited violations were properly tracked and resolved via the corrective action program. The results of the last comprehensive corrective action program audit conducted by the licensee were properly entered and dispositioned in the corrective action program. Based on discussions with plant personnel and the apparently low threshold for items entered in the corrective action program database, the inspectors concluded that workers at the site generally felt free to raise safety concerns to their management. The inspectors identified that an element of the corrective action program had not been fully developed, in that limited quarterly trending of issues was performed.

A. Inspector Identified Findings

No findings of significance were identified.

B. Licensee Identified Violations

None.

Report Details

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

a. Effectiveness of Problem Identification

(1) Inspection Scope

The inspectors reviewed items selected across the three strategic performance areas (reactor safety, radiation safety, and physical protection) to verify that problems were being properly identified, appropriately characterized, and entered into the corrective action program for evaluation and resolution. The inspectors reviewed program documents, including Nuclear System Directive (NSD) 208, Problem Investigation Process, Rev. 12 and NSD 210, Corrective Action Program Directive, Rev. 3, which described the administrative process for documenting and resolving issues. The inspectors reviewed Problem Investigation Process reports (PIPs) associated with systems that ranked the highest on the licensee's risk significance list. The systems were ranked by risk achievement worth, an indicator of the impact that system failure or unavailability would have on the plant. Systems selected included the refueling water storage tank (FWST), nuclear service water (RN), residual heat removal (ND), auxiliary feedwater (CA), and safety injection (NI) systems. The inspectors reviewed a sampling of PIPs that had been generated since the last problem identification and resolution inspection (December 2000). The specific documents reviewed are listed in the Attachment to this report.

The inspectors conducted multiple computer database searches to identify the threshold at which issues were identified and documented in the corrective action program. The review was performed to verify that the licensee's threshold for identification and documentation of issues was consistent with procedural guidance and licensee management expectations.

The inspectors reviewed industry operating experience (OE) items to determine if they were appropriately evaluated for applicability to McGuire and whether problems identified through these reviews were entered into the PIP database.

The inspectors reviewed plant equipment issues associated with maintenance rule (a)(1) items, functional failures, maintenance preventable functional failures (MPFFs), and repetitive MPFFs, to verify that maintenance rule equipment deficiencies were being appropriately entered into the PIP database. The inspectors toured the plant, including portions of the auxiliary building, control room, diesel generator rooms and turbine building, to determine whether equipment and material condition problems were being identified. While in the control room, the inspectors reviewed the equipment removal and restoration logbook (all open items), the shift engineers' logbook, and the logbook of open control room discrepancies to determine if problems potentially affecting safe plant operations were properly entered into the PIP database.

The inspectors audited several of the licensee's Daily Site Direction Meetings, a Directional Root Cause Meeting, a Plant Operation Review Committee Meeting, and Daily PIP Screenings to determine the level of management attention that problems received, as well as to gauge the effectiveness of the screening process in ensuring that problems were properly captured in the licensee's PIP database. The inspectors had discussions with plant personnel and the NRC resident inspectors to determine if problems were properly identified.

The inspectors reviewed several of the licensee's recent self-assessment and audits of the corrective action program to verify if findings and recommended areas for improvement were being entered into the licensee's corrective action program and that appropriate corrective actions were taken to resolve identified program deficiencies. The assessments were conducted by the Regulatory Audit group from the Duke Energy General Office and were identified as SA-01-03 (ALL)(RA), Corrective Action Program Assessment and SA-01-28(ALL)(RA), Quarterly Assessment of Corrective Action Program, Assessment of Trending of PIP Data.

Assessments were also performed for individual functional areas such as security, maintenance, operations, operating experience, and other areas. The results of these assessments were reviewed to determine if they were documented in the licensee's corrective action program as appropriate. These assessments touched on corrective action elements as they related to specific issues within the functional area being evaluated.

The inspectors reviewed NSD 223, Trending of PIP Data, Rev 2, to determine if the quarterly trending at the site level was as prescribed in NSD 233 for the Event Codes that represented cross cutting areas.

(2) Findings

Based on the sample selected, the team determined that the licensee was identifying problems and entering them into the corrective action program at an appropriate threshold. The team found that problems identified through industry experiences that met the threshold for a PIP at the site were entered into the corrective action program for resolution. The inspectors observed appropriate and timely management involvement in the review of the issues documented in PIPs.

Licensee self-assessments were thorough and effective in identifying deficiencies in the corrective action program and other programmatic areas. These deficiencies were routinely entered into the corrective action program and corrective actions were implemented.

Trending of site level issues was not fully utilized, in that only limited event codes were being trended from quarter to quarter (e.g., mispositionings). For the majority of the event codes being reviewed on a quarterly basis as required by NSD 223, only a snapshot of the information for the quarter was reviewed with no formal trending being

performed to previous quarters. Furthermore, the statistical analysis as described in the NSD 223 did not match the algorithm in the software utilized by the staff.

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The inspectors listened to the PIP prioritization screening conference call on several occasions and reviewed PIPs that were assigned various Action Categories to determine whether issues were properly prioritized and evaluated in accordance with NSD 208. The Action Categories (1 through 4) were defined in NSD 208 and were numbered based on decreasing significance. Action Category 1 PIPs involved "significant conditions adverse to quality" that required formal root cause evaluations, while Action Category 4 PIPs involved low level conditions or conditions not adverse to quality; neither of which required any type of causal evaluation. Action Category 2 PIPs were defined as "conditions adverse to quality" for which management could use its discretion in deciding whether to perform a formal root cause evaluation. Action Category 3 PIPs concerned problems for which an "apparent cause" analysis was sufficient in fixing the immediate problem. The inspectors reviewed PIPs covering all four categories, focusing on those associated with risk significant systems, as well as those associated with violations of regulatory requirements. During this PIP review, the inspectors evaluated the disposition of the issue with respect to operability and/or reportability. The inspectors reviewed several PIPs which required root cause analyses to determine the adequacy of the causal determinations.

(2) Findings

.1 General

No findings of significance were identified. In general, the licensee's threshold for classification, prioritization, and evaluation of problems in the corrective action program was considered to be satisfactory. The technical adequacy and depth of evaluations, as documented in individual PIPs, were acceptable. The inspectors found that the licensee properly prioritized proposed corrective actions in a manner commensurate with the safety significance of the issue. Based on the total number of PIPs with root cause evaluations that were reviewed during this inspection, the inspectors concluded that the licensee's corrective action program was generally being effectively implemented with respect to evaluation of problems. However, the inspectors did identify one exception where the licensee's evaluation and corrective actions were not timely with respect to the potential safety significance of the issue. This exception is discussed below.

.2 Auxiliary Building Filtered Ventilation Exhaust System (ABFVS) Licensing Basis

On April 4, 2001, PIP M-01-1677 was written to document a Self Initiated Technical Assessment (SITA) concern associated with the licensing basis for the non-safety grade ABFVS. The concern centered around the unclear docketed correspondence to support the licensing and design basis for taking full mitigating credit for the filtration system in

the loss of coolant accident (LOCA) offsite dose analysis calculation. At the time of the inspection, the licensee had not made any conclusion as to whether any of the issues raised by the SITA constituted an actual condition adverse to quality. There were only proposed corrective actions to review and evaluate the issues. The inspectors found that the due date for the PIP actual corrective actions were deferred on three occasions due to higher priority work. The inspectors concluded that the licensee's actions were not commensurate with the potential significance of the identified problem. However, at the time of the inspection, the licensee was actively pursuing the issues raised by the SITA.

The SITA raised several technical issues with respect to a system being credited for mitigating the offsite dose consequences of a LOCA (i.e., a safety-related function). These issues centered around the ABFVS design for single failure, quality assurance classification, seismic qualification, and not considering the effect of failure of nonsafety-related components. For example, although the filter train and all of its internal components are seismic Category 1 designed, several external components (i.e., fans, ductwork, and dampers) which are essential for system operation, are not seismically qualified. Additionally, the single failure of either Unit's filter train bypass damper (1/2ABF-D-3) to close with a safety injection signal would result in unfiltered flow to the station main vent. The original licensee submittal for the ABFVS did not credit the system in the offsite dose calculation for mitigating a LOCA. The subsequent NRC Safety Evaluation Report (SER) documented a calculation of doses as a result of substantial amounts of leakage over a short-term period (i.e., from a failed emergency core cooling system pump shaft seal). The Standard Review Plan (NUREG-800) describes this leakage as 50 gallons per minute, starting 24 hours after the accident and lasting for 30 minutes. The NRC concluded that the ABFVS would limit doses from this short-term leakage. In 1994, the licensee's offsite dose calculation was revised to credit the system for longer-term LOCA mitigation (i.e., 1.5 gallons per minute emergency core cooling system leakage, for 30 days). Additionally, the licensee revised Chapter 15 of the Updated Final Safety Analysis Report to take credit for the ABFVS for emergency core cooling system leakage when assessing offsite radiological consequences of a LOCA. However, documentation in the aforementioned SER did not address the system being credited for longer-term LOCA mitigation.

Further review of this issue is warranted to determine the appropriateness of taking credit for the ABFVS to mitigate offsite dose consequences for longer-term LOCA mitigation. This issue is identified as unresolved item (URI) 50-369,370/02-07-01: Auxiliary Building Filtered Ventilation Exhaust System Credit For Longer-Term LOCA Mitigation.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The inspectors reviewed PIPs, listed in the Attachment to this report, to determine whether the licensee had identified and implemented corrective actions commensurate with the safety significance of the issues. Where possible, the inspector also evaluated

the effectiveness of the actions taken. Part of this effectiveness review was conducted by attending several meetings related to the PIP. The inspectors verified that common causes and generic concerns were addressed where appropriate. Also, the inspectors reviewed corrective actions associated with previous non-cited violations (NCVs) to assess the adequacy of corrective actions. Included in this review was a sample of the oldest open PIPs in the licensee's database.

(2) Findings

From a review of corrective actions and the assigned action levels, the inspectors determined that the licensee's corrective action program was effective in correcting problems. Management involvement in the process was effective. During the PIP related meetings the inspectors observed that the licensee managers reviewed root cause analyses results that were presented by the site employees who led the analyses. They thoroughly questioned each analysis, and assessed the adequacy and effectiveness of related corrective actions. Corrective actions for NCVs were determined to be adequate.

The inspectors also found that the oldest open PIPs were reviewed on a frequent basis and the older PIPs included in the review sample had a valid reason to remain open.

d. Assessment of Safety-Conscious Work Environment

(1) Inspection Scope

During the conduct of interviews the inspectors questioned licensee personnel concerning their experience with the corrective action program to assess whether there were impediments to the establishment of a safety conscious work environment. Specifically, personnel were asked questions regarding any reluctance to initiate PIPs and adequacy of corrective actions for identified issues. In addition, the inspectors interviewed members of the licensee's employee concerns staff to determine the adequacy of procedural control, tracking of concerns, and trending of issues in order to identify problems in the area of safety conscious work environment as implemented by NSD 602, Employee Concerns Program. The inspectors also reviewed the employee program issues and evaluated how they were resolved in relation to maintaining and promoting a safety conscious work environment and to determine if issues affecting nuclear safety were being appropriately addressed.

(2) Findings

No findings of significance were identified. The individuals interviewed actively utilized the corrective action program in response to plant safety issues and other conditions adverse to quality. The inspectors determined that a safety conscious work environment was evident. Issues entered into the employee concerns program received the appropriate level of management involvement and feedback to employees following closure of the issues. The inspector concluded that employee concerns were actively pursued, as indicated by the relatively short duration to closure of the issues raised.

4OA6 Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. D. Jamil, Station Manager, and other members of licensee management at the conclusion of the inspection on August 28, 2002. A subsequent conversation was held on September 25, 2002, with Mr. C. J. Thomas, Regulatory Compliance Manager, to discuss the final inspection results. 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.

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee
Barron, B., Vice President, McGuire Nuclear Station
Bryant, J., Regulatory Compliance
Crane, K., Regulatory Compliance
Deal, H., Corrective Action Program Coordinator
Dolan, B., Manager, Safety Assurance
Harkey, B., Maintenance Manager for Valves and Civil
Houser, D., Heat Trace System Engineer
Jackson, W., Human Resources Manager
Jamil, D., Station Manager, McGuire Nuclear Station
Kidd, R., RN System Engineer
Mooneyhan, S., Innage Manager
Nolin, J., Operations Support Manager
Painter Sr., J. Operations Specialist, Emergency Preparedness
Patrick, M., Maintenance Superintendent
Peele, J., Manager, Engineering
Roberson, P., ND System Engineer
Scheurger, P., Safety Review Manager
Sloan, H., General Supervisor, Radiation Protection
Smith, D., Maintenance Rule Coordinator
Thomas, C., Regulatory Compliance Manager
Wadsworth, T., Technical Specialist, Security
Walker, N., OE Coordinator, General Office

Other licensee employees included engineers, operations personnel, and administrative personnel.

NRC
Lesser, M., Chief Engineering Branch 2, Division of Reactor Safety, Region II
Shaeffer, S., Senior Resident Inspector, McGuire Nuclear Station

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-369,370/02-07-01	URI	Auxiliary Building Filtered Ventilation Exhaust System Credit For Longer-Term LOCA Mitigation (Section 4OA2.b.(2).2)

Opened and Closed During this Inspection

None

DOCUMENTS REVIEWED

Procedures / Management Directives

Document Number	Title	Revision Number
NSD 204	Operating Experience Program (OEP) Description	Rev. 8
NSD 208	Problem Identification Process (PIP)	Rev. 12
NSD 210	Corrective Action Program Directive	Rev. 3
NSD 212	Cause Analysis	Rev. 11
NSD 223	Trending of PIP Data	Rev. 2
DPND-1551.00-0001	Emergency Planning Functional Area Manual	Rev. 12
NSM Directive 4.0	Reporting and Trending of Safeguards and Security Events	Rev. 18
NSD 602	Employee Concerns Program	Rev. 3
	Site Employee Concerns Process	Rev. 0
	Employee Concerns Program Employee Concerns Independent Investigation Process	Rev. 0
NSD 600	Technical Audits	Rev. 5
NSD 215	Duke Power Company INPO/Nuclear Network Program	Rev. 3
NSD 310	Requirements For The Maintenance Rule	Rev. 7

PIPs

PIP Number	Category	Description
01-0022	2	Siren 58: Failure - no sound, no chop, no rot, snyc fail during first quarter full cycle test
02-0886	3	On 2-26-02 Siren 12 failed the low -growl test because the electric power to the siren had been prematurely disconnected
01-4400	3	Missed opportunity for the timeliness of initial notification for the ALERT classification exceeded the 15-minute requirement
02-1017	2	Area next to VCT has a dose streaming in excess of 1000 mrem/hr from the transfer of high energy fuel assemblies

PIP Number	Category	Description
02-1059	2	Worker was released from the site with discrete hot particle in his shoe
02-1323	2	SG platform worker lost air while wearing a PAPR and was unable to remove his hood
02-1294	2	Radiation survey instrument failed to indicate actual dose rate on KF filter
02-1796	2	Security training reportable injury (Cycle 1)
01-1677	4	Auxiliary Building Filtered Ventilation System SITA audit identified possible design issues
02-2426	4	Operator response to dosimeter alarm during performance of critical operator actions
02-3563	3	Scaffolds installed for extended periods impeding personnel access
01-2307	4	Define time critical operator action to support limited nitrogen supply to pressurizer PORVs
01-4602	4	Evaluate loss of nuclear service water pump strategies during loss of low level intake events
01-3250	3	Discrepancy in flood curbs between turbine building and EDG room and credited for time critical action
01-3148	2	2SA 49 did not open in an acceptable time frame
00-0648	4	Stress analysis for restoration of letdown flow and pressure
00-1340	2	Instrument loop power supply reclassification to a(1) due to RMPFF
01-5113	4	Assessment on flow accelerated corrosion
02-0082	3	Thru wall piping leak downstream of 1BB-123
02-1822	4	Gradual wear of piping requires a minor modification
02-0345	4	Thermal cycles for excess letdown are currently not being recorded
00-3774	3	Evaluation of pressurizer main and auxiliary spray lines
02-2413	4	Thermal fatigue management program
01 4465	3	Work order not closed following system work
00-3195	2	C loop narrow range pressure failed low and CA pump started

PIP Number	Category	Description
00-4140	3	Non-licensed operator performed manipulation of controls
01-0986	2	Plant systems response different from simulator response
01-2012	3	Security officer performed inadequate search of personnel
01-3210	3	Security/fire watch not briefed on flooding responsibilities
01-3250	3	FSAR and DBD discrepancy on description of flood curbs
01-2248	2	Inadequate venting practices on the CA system
01-2854	1	Containment divider barrier door found to be not properly sealed
02-1567	3	Boron crystals accumulation on sump screen area
02-0140	2	Power mismatch bypass not in correct position
01-3139	1	Reactor trip due to error on main steam line pressure loop calibration
02-0177	2	Reactor coolant system leakage exceeded TS value
02-1017	2	Workers received unexpected dose
02-1018	3	Extra high dose rates found outside of transfer tubes
02-0907	4	Worker received ED dose alarm
00-4645	1	Reactor manually tripped due to OPDT and OTDT runback
02-1039	1	Reactor trip due to A SG Reg valve failed closed
02-1877	1	Check valve on 2A ND pump stuck open
02-0540	3	Equipment problems with boration controls
01-4260	3	Annual review of previous years effectiveness of corrective actions
02-0092	4	Maintenance self assessment revealed several were not effective
01-3972	3	Root cause and corrective actions were ineffective to prevent recurrence
01-3901	3	SA-01-027(ALL)(RA) corrective actions effectiveness
01-3904	3	PIPs closed with incomplete corrective actions
01-4508	4	Management exception did not meet NSD 208 criteria
02-3661	4	Containment upper compartment vent system

PIP Number	Category	Description
01-3663	3	Graded root cause quality check list not done
02-2613	3	VI Air Quality Test-Dew point temperature measured at atmospheric vice system pressure
01-4091	4	Unit 2 turbine building flood response time in AP may be non-conservative due to design differences between Unit 1 and 2
01-4108	3	2SA-77 unable to be closed in timely manner as required
01-4110	4	Evaluate effect of inability for 2SA-77 to be closed in a timely manner impact on S/G tube rupture analysis
02-2427	4	Evaluation of RN strainer function not classified as safety related
01-0878	3	CA pump seal water flow may be lost when RN used as suction source
01-3454	3	Numerous RN strainer high d/p alarms/fish backwashed from strainer
02-0613	2	2RN 103 not included in TSAIL
01-4462	3	Did not obtain 3000 gpm flow with 2B RN pump
00-3608	4	2A KC heat exchanger fouling due to RN corrosion products
01-2284	2	Inadequate venting practices used on ECCS during startup
02-1567	3	Significant accumulation of boron crystals identified in Unit 2 ECCS Sump
02-0571	3	Emerging trend on Unit 2 FWST heat trace failures
02-0389	3	Repetitive heat trace alarms on Unit 2 FWST
02-2622	3	Control Power Inadvertantly Removed From NI Pump Breaker
02-1313	3	2NI-436 Failed Leak Test
02-0759	3	Main Steam Safety Valve, 2SV-21, Failed During Set Point Testing
02-0010	3	Unplanned Tech Spec Entry & Maintenance Rule Functional Failure on 1EMF38/39/40
02-2652	3	1B VELB 5110 Reading Inaccurately
02-4082	3	2B CF Did Not Rollback
02-4010	3	Flow Indication for 2B NC Pump Failed Low

PIP Number	Category	Description
02-3856	2	Uniot 1 VF Exhaust Filter Failed Inplace Penetration Test
02-4025	4	Door 925 Mounting for Mag Lock Failed
02-3997	3	Crack In High Pressure Cover Plate
02-4071	1	Hydrogen Fire in the Vicinity of the H2 Dryer
01-1855	2	1A EDG stopped during ESF testing
01-1055	3	Flow was not documented through INV-22 (Deleted)
01-1206	3	NS system drain activities resulted in room contamination (Deleted)
01-1227	3	Incorrect material listed on material issue slip for W/O 98227088 (Deleted)
01-4307	4	The EDB equipment tag for the boron thermal regeneration compressor oil collar uses the equipment code CH, which is chiller: whereas the respective drawings shows these components as Heat Exchangers, HX (Deleted)
02-0343	4	A review of the McGuire Target Sets should be completed (Deleted)
02-0693	3	Air intake flapper found broken causing the monitor to lose vacuum resulting in a loss of flow alarm (Deleted)

NCVs and Licensee Event Reports (LERs)

NCV/LER Number	PIP Number	Category	Title
LER 370/00-02	00-4645	1	Unit 2 manual reactor trip following an invalid main turbine runback
LER 370/01-01	01-3139	1	Unit 2 reactor trip and auxiliary feedwater system actuation
LER 369/01-01	01-2854	1	Emergency personnel hatch not fully secured in the closed position
LER 369/02-01	02-0103	1	Manual reactor trip in response to loss of feedwater valve control power
LER 370/02-01	02-1877	1	Residual heat removal system inoperable due to a stuck open check valve

NCV/LER Number	PIP Number	Category	Title
NCV 00-06-01	00-3195	2	De-energizing inverter resulted in inoperable LTOP
NCV 00-07-01	00-4140	3	ASP manipulations by NLO
NCV 00-07-02	01-0986	2	Inadvertent cooldown - 1EOC14
NCV 01-02-01	01-2012	3	Security - Failure to perform proper search
NCV 01-03-01	01-3210 01-3250	3 3	Flooding - compensatory measures, mitigation for EDG rooms
NCV 01-03-02	01-2284	2	ECCS piping voids - inadequate procedure
NCV 01-03-03	01-2854	1	Submarine hatch door not fully closed
NCV 01-05-02	02-1567	3	Inadequate performance of ECCS recirculation sump inspection
NCV 01-05-03	02-0140	2	Failure to follow power ranger test procedure
NCV 01-05-04	01-3139	1	Failure to follow steam pressure loop instrument test resulting in reactor trip
NCV 01-05-05	02-0177	2	Inadequate maintenance procedure resulting in NC system leakage event
NCV 01-05-06	02-1017 02-1018	2 3	Failure to control two areas as locked high radiation areas
NCV 01-05-07	02-0907	4	Failure of an individual to respond appropriately to an alarming ED

Audits/Assessments and Trend Reports

Titles	Issue Date
SA-01-02, SITA Audit (MC) (CN) (NPAS) (SITA)	4/4/01
MNT-SAO1-05, Review of effectiveness of 2000 Self Assessment Corrective Actions	1/4/02
SEC SC-SAO1-03, Review of effectiveness of 2000 Self Corrective Actions	11/12/01
OPS-SAO2-10, Reactor Makeup Water System	4/6/02
SA-01-03, (ALL)(RA), Corrective Action Program Assessment	2/22/01
SA-01-28, (ALL)(RA), Quarterly Assessment of Corrective Action Program, Assessment of Trending of PIP Data	10/25/01

Titles	Issue Date
SA–01-30, (ALL)(OEP) Operating Experience Program Assessment	8/30/01
Report of Safety Review/Independent Nuclear Oversite Team	7/02
Report of Safety Review/Independent Nuclear Oversite Team	6/02
Safety Review Group Monthly Report	4/02
Safety Review Group Monthly Report	5/02

Operating Experience Documents

Operating Experience Data Base Number	Industry Operating Experience Document	Title
02-031003	BU 02-02	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspections Programs
02-030552	IN 02-21	Axial Outside-Diameter Cracking Affecting Thermally Treated Alloy 600 SG Tubing
02-029550	IN 02-10	Non-conservative Water Level Setpoints n Steam Generators
02-030772	IN 02-02	Recent Experience with Plugged Steam Generator Tubes
02-029415	IN 02-09	Potential for Top Nozzle Separation and Dropping of a Certain Type of Westinghouse Fuel Assembly
01-028289	10 CFR Part 21	Borg-Warner 3" & 4" Swing Check Valves
01-028937	10 CFR Part 21	Dresser Rand Terry Turbine Gimpel Trip and Throttle Valve Screw Spindle (Stem)
01-027075	W-NSAL 01-001	Rod Withdrawal Speed
01-028597	W-TB-01-5	7300 Printed Circuit Boards
02-029439	W-NSAL 02-05	SG Water Level Control System Uncertainty Issue Number

Operating Experience Data Base Number	Industry Operating Experience Document	Title
01-027112	INPO SER 2-01	EDG Failure Resulting from Inadequate Performance Monitoring and Inadequate Response to Symptoms of Impending Failure
01-028794	INPO SEN 224	Recurring Event, Inadvertent Reactor Vessel Inventory Reduction During RHR Crosstie Line Flushing

Other Related Documents

Nuclear Safety Review Board (NSRB) Meeting Minutes 1/14/01, 9/20/01, 11/1/01, 6/4/02

McGuire Nuclear Station Lower Tier Programs

2001 4th Quarter Trending Report for Radiation Protection

2002 1st Quarter Trending Report for Radiation Protection

2002 1st Quarter Safeguards and Security Event Trending Report

2001 4th Quarter Safeguards and Security Event Trending Report

2002 1st Quarter Trending Report for Emergency Preparedness

2002 2nd Quarter Trending Report for Emergency Preparedness

Docutracks MNS-2002-935

Docutracks MNS-2002-936

Docutracks MNS-2001-534

CARB Meeting Minutes, June 10, 2002

Configuration Control Review, June 26, 2002

MNS System and Component Health Report, 2/13/02

MNS System and compoment Health Report, 8/5/02

McGuire ESP Review Board Comments, 4/27/02

McGuire ESP Review Board Comments, 3/21/02

McGuire ESP Review Board Comments, 8/1/02

MNS System and Component Health Report, 5/6/02

Category 1&2 PIPs Generated FY 97-02

Corrective Action Program McGuire Nuclear Station Presentation - 5/02

Significant Event Report 8/12/02

McGuire Maintenance A(1) SSC's, 6/00 to 7/02

Valves and Heat Exchangers Health Report, 2002Q2

Reactor Systems Health Report, 2002Q2

120VAC Systems Health Report, 2002Q2

Grouped Components Health Report, 2001Q2

Emergency Diesel Generator Health Report, 2002Q2

Ice Making/Transportation Equipment, 2002Q2

Primary Systems Health Report, 2002Q2

Root Cause Review

PIP Number	Category	Description
01-00986	2	Plant response during Unit 1 shutdown, was significantly different from response on Simulator
01-02284	2	Inadequate venting practices on ECCS prior to startup
01-02854	1	Unit one Upper/Lower Containment hatch Divider Barrier compromised
01-03139	1	Unit 2 reactor trip
02-00140	2	Power mismatch switch not in n43 and not in n41 as required
02-01017	2	Area next to VCT has dose streaming in excess of 1000 mrem/hr
00-04645	1	Unit Trip Manual Trip
01-03139	1	Unit Reactor Trip and Auxiliary Feedwater System Actuation
01-02854	1	Emergency Personnel Hatch not Fully Secured in the Closed Position
02-00103	1	Manual Reactor Trip in Response to Loss of Feedwater Valve Control Power
02-01877	1	Residual Heat Removal System Inoperable Due to a Stuck Open Check Valve

PIP Number	Category	Description
02-613	2	2RN103 not included in TSAIL (TS Action Item Log)
01-1855	2	1A EDG stopped during ESF Testing