



Pat Quinn, Governor
Andrew Velasquez III, Director
Joseph G. Klinger, Assistant Director

January 4, 2010

United States Nuclear Regulatory Commission - Region III
Quad Cities Nuclear Station
22710 206th Avenue North
Cordova, IL 61242

Attention: Mr. James McGhee

SUBJECT: IEMA - Bureau of Nuclear Facility Safety, Inspection Report
Quarterly Inspection Period: October 1 to December 31, 2009

Dear: Mr. McGhee,

On December 31, 2009 the Illinois Emergency Management Agency-Bureau of Nuclear Facility Safety Resident Inspector completed the quarterly inspection activities at the Quad Cities Nuclear Station, Units 1 and 2. Per the terms and conditions of the Memorandum of Understanding (MOU) between the NRC and IEMA-BNFS, the enclosed inspection report documents our agency's inspection issues and concerns that were previously discussed with you and members of your resident inspection staff.

The IEMA-BNFS inspection activities were conducted as they relate to nuclear safety and to compliance with the Commission's rules and regulations and with the conditions of the plant license. The inspector(s) reviewed selected licensee procedures and records, observed licensee activities, and interviewed licensee personnel.

Specifically, the inspection activities for this period focused on those inspection modules that were proposed to your NRC inspection staff as identified in the Fourth Quarter IEMA Inspection Plan and are disseminated within the text of the attached IEMA-BNFS Inspection Report.

Based on the results of this inspection, the inspectors identified the following IEMA-BNFS Open / Follow-up Items and are discussed within their respective report reference ():



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1. The inspector will wait until the licensee's drill report is published, in January 2010, to assess if the drill evaluation captured the inspector's issues. (1EP6)

In addition, the following IEMA Inspector items that were being tracked by IEMA, are considered **Closed** to further review and are discussed within their respective report reference ():

1. The inspector determined that there was no requirement for the emergency sirens to be monitored by the site unless the failure rate exceeded a preset limit. (40A2.2)

Any issues, open items and/or concerns that are discovered during the course the inspection period are normally entered into the IEMA – Bureau of Nuclear Facility Safety Plant Issues Matrix, and by this letter, are considered as disseminated to your NRC staff for disposition in accordance with NRC policies and procedures. In full cooperation with the and at the request of the NRC, IEMA-BNFS will continue to follow and assist the NRC Resident Inspection Staff with resolution and closure of all such issues, open items and/or concerns.

In full cooperation with and at the request of the NRC, IEMA-BNFS will continue to follow and assist the NRC Resident Inspection Staff with resolution and closure of all such issues and concerns.

If you have any questions, please contact me at your earliest convenience.

Sincerely yours,

Richard J. Zuffa
IEMA-BNFS/RI Unit Supervisor
Resident Inspection Staff

Docket Nos. 50-254; 50-265
License Nos. DPR-29; DPR-30
Enclosure(s): Inspection Report; 09QC-4QIR
cc w/o encl: A.C. Settles, Chief Division of RICC
C.H. Mathews, IEMA-BNFS-RI

Please visit the nuclear safety section of the Agency's website at www.iema.illinois.gov/iema/dns.asp for the latest information concerning the Division of Nuclear Safety's programs. Our website includes important information such as new and proposed requirements, guidance, events and other pertinent items of interest.



Summary of Plant Status

Unit 1

Unit 1 operated the entire inspection period at near full rated electrical load of 930 MWe, except for one load drop for a control rod sequence exchange on November 22.

Unit 2

Unit 2 operated the entire inspection period at near full rated electrical load of 945 MWe except for one load drop for a control rod pattern adjustment on December 5.

1 REACTOR SAFETY

Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

The inspector performed a cold weather inspection prior to the onset of winter operations. The inspector evaluated the licensee's winter readiness status. The inspector reviewed Quad Cities Operating Procedure QCOP 0010-01 Revision 48, Winterizing Checklist.

b. Observations and Findings

As of November 23, 2009, the licensee had begun the Winterizing Checklist procedure. The inspector reviewed the portions completed on this checklist as of the week of November 23, 2009. The procedure had been started but had not been completed at that time.

The licensee determined that the Ice Melt valve was stuck in the closed position. Repairs to the valve were waiting on the delivery of needed parts scheduled to arrive in December. With the onset of winter weather, the valve was manually opened by mechanical maintenance to compensate for the winter weather that had arrived.

c. Conclusion

There were no significant issues identified during this inspection activity.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

The inspector performed equipment configuration alignment and general area inspections in the following plant areas:

- Main Control Room and Back Panel Areas
- Unit 1&2 Reactor Feed Water Pump Rooms
- Unit 1&2 4 kV Buses (safety and non-safety)
- Unit 1&2 High Pressure Coolant Injection (HPCI) Rooms
- Unit 1&2 Reactor Building Corner Pump Rooms
- Shutdown Makeup pump (SSMP) Room
- Unit 1&2 and Unit ½ Emergency Diesel Generator (EDG) Rooms
- Refuel Floor
- Turbine Building

b. Observations and Findings

During walk down inspections of plant equipment areas, the inspector verified equipment configuration and inspected equipment areas for any material condition deficiencies that could prevent proper equipment operation. Equipment areas were inspected for system leakage, personnel safety hazards, potential interference with system components and controls, fire hazards, water intrusion, and the integrity of system structural supports. The inspector monitored equipment areas for abnormal vibration, odors, sounds, or other conditions that could impact proper equipment operation and plant safety.

On October 15, the inspector identified that the indicating lights on five remote control stations appeared to be burned out. The inspector was informed by the unit supervisor that these bulbs burn out regularly, and that to replace them required opening the components breaker thus making those components inoperable. Because of this, the inspector was informed by the licensee that a list of failed bulbs was maintained and on the weekend, the bulbs were changed.

On October 23, the inspector identified five more lights that appeared burned out and this time asked the Shift Manager if changing these bulbs at a weekly interval was prudent or should the bulbs be replaced at a shorter

interval because of the components association and use in E-Plan procedures. The Shift Manager initiated IR 983549. Resolution to this IR was to replace the burned out bulb within a 24-hour period, unless operating conditions prevented such action. If the bulb could not be changed out right away, operators were instructed to initiate an IR to track the deficiency and to place a deficiency tag on the component. As of December 14, 2009, the procedure had not been revised; however the inspector has observed that approximately twelve incident reports have been initiated for non-operational light bulbs.

On October 23, the inspector while touring the power block identified miscellaneous work material stored on top of a metal platform just south of the unit 2 trackway located under the Unit 2 Main Generator. The area was clearly marked with a sign stating "No Material Storage Here". The inspector turned this over to the shift manager who initiated IR 969458 and had the adverse condition corrected.

On November 30, the inspector identified an erratic indication on the Unit 1 Safety Parameter Display System (SPDS) computer point D616, SPDS-Torus Water Level. The inspector discussed this erratic indication with the Unit 1 Unit Supervisor and determined that the control room indication was stable and that only the computer point was the source of the erratic indication. IR 999366 was initiated to investigate. It was determined that the computer point had an incorrect zero torus level reference value. The incorrect zero torus level reference value also existed on Unit 2 computer point D716. This condition is believed to have existed since the late 1980's – early 1990's time frame. On December 9 the computer points were corrected.

On December 3, the inspector toured the Reactor Building basement and identified several material condition issues:

- There was a puddle of water located directly under the Unit 1 Torus that appeared to originate from an area above the torus, although no active leak was observed. Operations investigated the leak and could not locate its source. They had the puddle cleaned up and planned to monitor for area for additional leakage.
- Several oil leaks were identified on the Unit 1 Reactor Core Isolation Cooling System (RCIC). Oil leakage had occurred from a drain valve off the RCIC turbine bearings and from the RCIC governor. RCIC was shutdown at the time so these leaks would most likely resume when the system is again operated. Operations personnel checked the leaks and cleaned them up.

- While of a minor nature, the inspector was surprised to identify a considerable amount of debris on the floor within the contaminated area under both the Unit 1 and Unit 2 Torus. The shift manager directed the facility group to remove the debris.

c. Conclusions

There were no significant issues identified during this inspection activity.

1R05 Fire Protection (71111.05)

a. Inspection Scope

The inspector evaluated the licensee's fire protection program for operational status, and material condition and verified the adequacy of:

- Controls for combustibles and ignition sources within the plant
- Fire detection and suppression capability
- Material condition of passive fire protection features

b. Observations and Findings

The inspector performed regular tours of the Quad Cities power block over the quarter and while on tour, verified compliance with the licensee's fire protection program per procedures OP-AA-201-004 rev 8, Fire Prevention for Hot Work, and OP-AA-201-009 rev 9, Control of Transient Combustible Material.

c. Conclusions

There were no significant issues identified during this inspection activity.

1R06 Flood Protection (71111.06)

a. Inspection Scope

The inspector reviewed the licensee's flooding mitigation plans and equipment; and verified that they were consistent with the licensee's design requirements and the risk analysis assumptions.

b. Observations and Findings

For the last half of the year, the site has had ongoing issues with the watertight doors in the reactor building basement. On December 3, the inspector identified that the latch on the water tight door between the Unit 2 RCIC/2B Core Spray room and the Unit 2 torus room would not spring return and latch. The inspector determined that the latch could be manually engaged and that the hand wheel functioned properly. IR 1001309 was initiated to resolve the issue. All other water tight doors functioned properly except for the unresolved problem with the handwheel mechanism being difficult to operate and requiring a considerable amount of effort to engage and disengage.

c. Conclusions

There were no significant issues identified during this inspection activity.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspector evaluated the licensee Maintenance Rule (MR) Program to verify that Safety System or Component (SSC) performance or condition problems were identified and corrected.

b. Observations and Findings

Over the fourth quarter, the inspector performed a review of Residual Heat Removal (RHR) System. The inspector reviewed the allowable out of service hours and compared them to those used in the site probabilistic risk assessment (PRA). Reviewing the MR database and talking with the PRA engineer, the inspector determined that the MR input and the PRA input were the same. The inspector next interviewed the MR project manager and discussed differences between the MR "Limit" and the MR "Avail Target". Within the MR database are two sets of setpoints the MR "Limit" and the "Avail Target". The MR "Limit" hours agree with the input in the PRA for unavailability hours. The "Avail Target" data, in some cases, had limits that were more than three times the number of hours in a two year period. There are 17520 hours/2 yr while some components showed an "Avail Target" of 54000 hours/2 yr. Discussions with the MR project manager determined that the "Avail Target" field is not used at this time.

The inspector reviewed the document "Quad Cities Maintenance Rule Availability and Reliability Performance Criteria Sensitivity Study-Updated

for 2005A PRA” to evaluate the impact of the MR data on the PRA. The inspector had no issues with document

c. Conclusions

There were no significant issues identified during this inspection activity.

1R13 Maintenance Risk Assessment & Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspector monitored the licensee’s on-line risk assessment on a continual basis.

b. Observations and Findings

The inspector monitored the on-duty shift activities concerning risk assessment practices during scheduled plant maintenance and emergent work activities. The on-shift supervisors updated the on-line risk assessments to their appropriate levels when plant conditions warranted and it was their practice to consult the Station Risk Coordinator in the event they encountered an equipment configuration not previously evaluated.

On October 22, the Unit 1 Reactor Core Isolation Cooling (RCIC) System was out of service for scheduled maintenance with the High Pressure Coolant Injection (HPCI) System designated as the protected equipment. The inspector walked down the HPCI System using procedure QCOP 2300-01, rev 54 “HPCI Preparation for Standby Operation” as guidance. The inspector verified, without entering contaminated areas, that this system was aligned to the correct standby status per the procedure.

On October 22, the Unit 2 HPCI System was out of service for scheduled maintenance with the RCIC System designated as the protected equipment. The inspector walked down the RCIC System using procedure QCOP 1300-01, rev 35 “RCIC Preparation for Standby Operation” as guidance. The inspector verified, without entering contaminated areas, that this system was aligned to the correct standby status per the procedure.

On October 27, the Unit 2 Diesel Generator (DG) was out of service for scheduled maintenance with the ½ DG designated as the protected equipment. The inspector walked down the ½ DG using procedure QCOP 6600-04, rev 29 “Diesel Generator Preparation for Standby Operation” as

guidance. The inspector verified that this system was aligned to the correct standby status per the procedure.

c. Conclusions

There were no significant issues identified during this inspection activity.

1R15 Operability Evaluation (71111.15)

a. Inspection Scope

The inspector reviewed Operability Evaluation 822508/824347 revision 3 for Unit 1 and Unit 2 Essential 250 volts DC, Unit 1 125 volt DC, and Unit 2 Alternate 125 volt DC Batteries.

b. Observations and Findings

The inspector reviewed Operability Evaluation 822508/824347 revision 3 for Unit 1 and Unit 2 Essential 250 volts DC, Unit 1 125 volt DC, and Unit 2 Alternate 125 volt DC Batteries. The Operability Evaluation was performed following the discovery that a non-conforming condition related to the thickness of Ethafoam™ used as a spacer between the walls of the batteries. The Ethafoam was found to be 0.25-inches thick versus 0.50-inches used during seismic qualification testing. The Operability Determination found the discrepancy in foam thickness is bounded by the Seismic Qualification Utility Group's earthquake experience data and that the subject batteries are operable.

No issues or comments were generated.

c. Conclusions

There were no significant issues identified during this inspection activity.

1R17 Eval of Changes Tests Plant Mods (71111.17)

a. Inspection Scope

The inspector reviewed the outstanding temporary configuration changes (TCC) (temporary modifications) implementation and 10CFR50.59 evaluations.

b. Observations and Findings

On December 11, the inspector reviewed the installed temporary configuration change packages (TCCP) for unit 1 and 2. Detailed reviews were performed on TCCPs for the following:

- EC 377665; Unit 2 pressure transducer on LI-2-263-59A/59B, Steam Dryer monitoring,
- EC 372983; Unit 2 remove Control rod over travel alarm.

EC's 377665 and 372983 were complete and the inspector had no questions.

For one EC, EC 370100, the TCCP was missing. The inspector determined by talking to the unit supervisor and the TCC Coordinator that the EC package was required to be on file in the control room, per procedure CC-AA-112, Temporary Configuration Changes, and had been missing since September 11, 2009. An IR was not initiated in September as the TCCP coordinator wanted to look for it and hoped that the TCCP package would eventually be located.

On December 11, the unit supervisor informed the TCC Coordinator that an IR should be initiated for the lost TCCP. On Monday, December 14, the inspector followed up with the TCC Coordinator and found that an IR was still not initiated, but was done so later that day (IR 1005217). The inspector discussed this 3 month delay with the NRC Senior Resident Inspector and the incident will be added and tracked for the Problem Identification and Resolution (PI&R) inspection scheduled for 2010.

c. Conclusions

There were no significant issues identified during this inspection activity.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope

The inspector verified that post-maintenance test procedures and test activities were adequate to verify system operability, and functional capability.

b. Observations and Findings

Over the inspection period, the inspector reviewed completed Post Maintenance Test (PMT) procedures to verify that repaired systems were made operable. The inspector reviewed the following PMT:

- For valve 2-1601-61; QCOS 0005-04 Rev 17, IST Valve Position Indication Surveillance
- For valve 2-1601-62; QCOS 0005-04 Rev 17, IST Valve Position Indication Surveillance
- For valve 2-1601-61; QCOS 1600-14 Rev 21, Pressure Suppression System Power Operated Valve IST Testing
- For valve 2-1601-62; QCOS 1600-14 Rev 21, Pressure Suppression System Power Operated Valve IST Testing
- For valves 2-1301-22, 26, & 48; QCOS 1300-06 Rev 26, RCIC System Power Operated Valve Test

c. Conclusions

There were no significant issues identified during this inspection activity.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspector verified that surveillance testing of risk-significant systems, and components demonstrated that the equipment was capable of performing its intended safety function.

b. Observations and Findings

Over the inspection period, the inspector reviewed completed surveillance procedures to verify that system operability was met. When IRs were initiated, the inspector verified that the IR condition did not prevent the system from remaining operable.

- QCOS 2400-01 rev 8, Containment Atmosphere Monitoring System Power Operated Valve Testing,
- QCOS 6500-10 rev 24, Functional Test of Unit 2 Second Level Undervoltage,
- QCOS 1300-22 rev 13, RCIC CCST Suction Check Valve Closure Test,
- QCOS 1300-06 rev 26, RCIC System Power Operated Valve Test,

- QCOS 0005-04 rev 17, IST Valve Position Indication Surveillance,
- QCOS 1600-14 Rev 21, Pressure Suppression System Power Operated Valve IST Testing.

The results of the surveillance tests were considered satisfactory by the inspector.

c. Conclusions

There were no significant issues identified during this inspection activity.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspector evaluated the drill performance of the Technical Support Center (TSC) in a utility only Performance Indicator emergency drill from the TSC.

b. Observations and Findings

On December 10, the inspector performed an inspection of a Technical Support Center (TSC) Performance Indicator (PI) drill per IP 71114.06, Drill Evaluation. The drill began with an Alert declaration, at 0810, due to flooding of the 1B Residual Heat Removal (RHR) System corner room. At 0833 the TSC assumed command and control of the event. At 0850, the reactor scrammed, due to a loss of off-site power (LOOP), and the emergency diesels did not start and load as designed. At 0901 emergency action level (EAL) MS1 was declared due to the LOOP and failure of the standby diesels to start. Finally, EAL FG1 was declared when drywell radiation exceeded 1570 Rad.

The inspector had several issues with actions in the TSC. The site report has not yet been generated, so it is not known if the utility has also identified these items:

- No discussion of concurrent EALs.
- The status of station priorities, specifically “Repair Unit 1 Reactor Building Ventilation Dampers” was shown as complete in the TSC at 0928 while the Operations Support Center (OSC) showed the repair team status as being briefed. At 0936, the OSC showed the repair team as dispatched and at 0954, the work was shown as complete by the OSC.

c. Conclusions

The inspector will wait until the license drill report is generated, most likely in January 2010, to assess if the drill evaluation captured the inspectors issues. This is considered an inspector Open Item [09QC-4QIR-001].

2 RADIATION SAFETY

2PS Public Radiation Safety

2PS1 Environmental Monitoring Program and Radioactive Material Control Program (71122.01)

a. Inspection Scope

The inspector reviewed the results from the last set of Tritium well samples and reviewed IRs to ensure that abnormal radioactive gaseous or liquid discharges and conditions were properly monitored.

b. Observations and Findings

On November 17, the inspector received the license's latest well sample results from the 54 Tritium sample wells. The samples were taken in early November. The groundwater sampling program monitors the existing tritium plume (from previous sub-surface piping leaks that were identified and repaired) as it traverses the owner controlled area and provides early warning of new radioactive leakage. The site minimum detectable level of Tritium is has been established at 200 Pico Curies per Liter (pCi/L).

From the latest well sample data, the inspector continues to believe that Tritium activity has been decreasing overall, with the plume moving to the southwest as expected.

c. Conclusions

The inspector will continue to follow the tritium sample results.

There were no issues of significance identified during this inspection activity.

2PS3 Environmental Monitoring Program (REMP) and Radioactive Material Control Program: 71122.03)

a. Inspection Scope

The inspector performed a verification of the Radiological Environmental Monitoring Program (REMP) analyses with respect to its impact of radioactive effluent releases to the environment. The inspection was performed to validate the integrity of the liquid effluent release program and to ensure that the licensee's surveys and controls were adequate to prevent the inadvertent release of uncontrolled radioactive contaminants into the public domain.

b. Observations and Findings

On November 17, 2009, the Illinois Environmental Protection Agency (IEPA) visited the Quad Cities Station for their quarterly joint inspection with IEMA. From the latest well sample data, the inspector believes that Tritium activity continues to decrease overall, with the plume moving to the southwest as expected.

The change to the Tritium levels resulted from operation of the "Big Fish" well that drew water from the subsurface area of the former RHR pipeline leak plume toward the well. The "Big Fish" well is located southwest of the station and discharges to the former cooling water spray canal that is now used as a Walleye fish hatchery. The licensee estimates 91 million gallons of water have been discharged to the old spray canal from the well.

The licensee has also established a number of cathodic protection test point around the site. The test points will be used to assess grounding potentials and to predict areas where buried piping may be at risk.

c. Conclusions

There were no significant issues identified during this inspection activity.

4 ALL Cornerstones

4OA2.1 Identification and Resolution of Problems: (71152)

a. Inspection Scope

The inspector reviewed corrective action documents to determine the licensee's compliance with NRC regulations regarding corrective action programs.

b. Observations and Findings

The inspector reviewed every Issue Report (IR) initiated during the quarter to assess whether the site was properly identifying issues.

The inspector reviewed a sample of Apparent Cause Report (ACE) documents:

- IR 961590; received alarm for HPCI controller signal failure
- IR 963687; SBO clearance released prior to work being complete
- IR 969115; Connector found disconnected for main turbine stop valve
- IR 969849; Breaker trip settings on unit 1 diesel generator cooling water pump alternate feed did not match
- IR 980034; Radiation Technician work hour rules near miss
- IR 982753; Q1F60 Forced outage readiness and execution delays
- IR 984769; Well broke off temperature indicator in diesel generator coolant system
- IR 985059; Unplanned spread of contamination
- IR 986413; Operations removed 1B RWCU demin instead of 1A
- IR 991992; TSC building failed pressure test
- Number three fast acting solenoid valve

The inspector reviewed a sample of Root Cause Report documents:

- IR 961927; Procedure use and adherence issues identified in Common Cause Analysis (CCA) (IR 950871) for 2009 station/department clock resets
- IR 945611; Potential inattentive worker identified during dry cask campaign
- IR 962562; Unit 1 shutdown due to cavitation induced leak in core spray piping

The inspector reviewed a sample of Common Cause Analysis documents:

- IR 971851; IRs generated in 2009 for work week schedule impacts
- IR 9755911 Unattended unsearched material discovered in the protected area

- IR 975733; Adverse trend in security operations noted during NOS Audits
- IR 981668; Perform Common Cause Analysis on work management

The inspector reviewed a sample of Quick Human Performance Investigation Reports:

- IR 968657; Vehicle accident outer protected area gate at vehicle search
- IR 976238; Near miss while operating a fork truck

The inspector reviewed each of the above documents in detail, discussed them with applicable site personnel, and reviewed the applicable governing documents, i.e. Technical Specifications, UFSAR, 10CFR. No issues were identified.

c. Conclusions

There were no significant issues identified during this inspection activity.

4OA2.2 Identification and Resolution of Problems: (71152)

(Closed) Open Item 08QC-3QIR-05: The inspector's investigation into why plant associated equipment (plant sirens) would be treated differently in the PI&R process.

On August 6, 2008, the inspector questioned the shift manager about the emergency siren that was out of service due to a storm in the area on August 4. The shift manager did not know of any out of service emergency sirens and called the Emergency Planning (EP) Supervisor. The shift manager was informed by the EP Supervisor that one siren was out of service and that the shift manager had not been notified because less than 22% of the total number of sirens were out of service.

The inspector questioned this practice since the shift manager holds the highest authority operating license at the facility and should be aware of the status of malfunctioned safety equipment both on and offsite, especially those relating to the licensee's emergency preparedness functions and capability.

From the inspector's question, two IRs were initiated, IRs 804562 and 804563, to document the issue. The resolution to these IRs was that the

status quo was appropriate and no change in reporting to the shift manager was necessary.

The inspector reviewed:

- 10CFR50
- Quad Cities Updated Final Safety Analysis Report (UFSAR)
- Quad Cities Technical Specifications
- Information Notice 2005-06: Failure to Maintain Alert and Notification System Tone Alert Radio Capability
- Manual Chapter 1601 Communication and Coordination Protocol for Determining the Status of Offsite Emergency Preparedness Following a Natural Disaster, Malevolent Act, or Extended Plant Shutdown
- Information Notice 2002-14: Ensuring a Capability to Evacuate Individuals Including Members of the Public, From the Owner Controlled Area
- NUREG-0654/FEMA-REP-1, Rev. 1 & Addenda; Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

Based upon the additional research performed by the inspector, the inspector believes that Exelon is tracking emergency siren failures as required and the inspector considers this item as closed.

INSPECTION PROCEDURES USED

The following procedures were used to perform inspections during the report period. Documented findings are contained in the body of the report.

<u>Inspection Procedure</u>	<u>Title</u>	<u>Section</u>
IP 71111-01	Adverse Weather	R01
IP 71111-04	Equipment Alignment	R04
IP 71111-05	Fire Protection	R05
IP 71111-06	Flood Protection	R06
IP 71111-12	Maintenance Effectiveness	R12
IP 71111-13	Maintenance Risk Assessments and Emergent Work Evaluation	R13
IP 71111-15	Operability Evaluation	R15
IP 71111-17	Evaluation of Changes Tests Plant Mods	R17
IP 71111-19	Post Maintenance Testing	R19
IP 71111-22	Surveillance Testing	R22
IP 71114-06	Drill Evaluation	EP6
IP 71122-01	Radioactive Gaseous and Liquid Effluent	PS1

IP 71122-03	Treatment and Monitoring System Environmental Monitoring Program (REMP) and Radioactive Material Control Program	PS3
IP 71152	Identification and Resolution of Problems	OA2

LIST OF ACRONYMS USED IN REPORT

10CFR.	Title 10 Code of Federal Regulations
ACE	Apparent Cause Report
CCA	Common Cause Analysis
CCST	Clean Condensate Storage Tank
DC	Direct current
DG	Diesel Generator
EAL	Emergency Action Level
EC	Engineering change
EDG	Emergency Diesel Generator
EP	Emergency Planning
HPCI	High Pressure Coolant Injection
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
IR	Incident Reports
IST	In-Service Testing
LOOP	Loss Of Offsite Power
MR	Maintenance Rule
NOS	Nuclear Over-Sight
OSC	Operations Support Center
PI	Performance Indicator
pCi/L	Picocuries per Liter
PI&R	Problem Identification and Resolution
PMT	Post Maintenance Test
PRA	Probabilistic Risk Assessment
QCOP	Quad Cities Operating Procedure
QCOS	Quad Cities Operations surveillance procedure
RCIC	Reactor Core Isolation Cooling
REMP	Radiological Environmental Monitoring Program
RHR	Residual Heat Removal
RWCU	Reactor Water Cleanup
SBO	Station Blackout
SPDS	Safety Parameter Display System
SSMP	Shutdown Makeup pump
SSC	Safety System or Component

TCC Temporary Configuration Change
TCCP Temporary Configuration Change Packages
TSC Technical Support Center
U1, U2 Unit 1, Unit 2
UFSAR Quad Cities Updated Final Safety Analysis Report