

August 13, 1999

Mr. Oliver D. Kingsley  
President, Nuclear Generation Group  
Commonwealth Edison Company  
ATTN: Regulatory Services  
Executive Towers West III  
1400 Opus Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: NRC INSPECTION REPORT 50-254/99012(DRS); 50-265/99012(DRS)

Dear Mr. Kingsley:

On July 16, 1999, the NRC completed the baseline problem identification and resolution inspection of your Quad Cities Nuclear Generating Plant, Units 1 and 2. The results of this inspection were discussed on July 16, 1999, with Mr. J. P. Dimmette, Jr., and other members of your staff.

The inspection was an examination of activities conducted under your license as they relate to identification and resolution of problems and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observation of activities, and interviews with personnel. Specifically, this inspection focused on the adequacy and implementation of the Quad Cities corrective action program.

Although no safety significant problems were identified, the NRC inspectors identified several issues which were characterized as having low risk significance. These issues were documented and were entered into the plant corrective action program. Of the three issues identified, two were determined to be violations of NRC requirements, but because of the low safety significance the violations are not cited. If you contest these non-cited violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-001.

In accordance with 10 CFR 2.790 of the NRC's "Rules and Practices," a copy of this letter, the enclosure, and the response (if provided) will be placed in the NRC Public Document Room (PDR).

We will gladly discuss any questions you have concerning the inspection.

Sincerely,

Original /s/ R. N. Gardner for

John M. Jacobson, Chief  
Mechanical Engineering Branch  
Division of Reactor Safety

Docket Nos. 50-254; 50-265  
License Nos. DPR-29; DPR-30

Enclosure: Inspection Report 50-254/99012(DRS);  
50-265/99012(DRS)

cc w/encl: D. Helwig, Senior Vice President, Nuclear Services  
C. Crane, Senior Vice President, Nuclear Operations  
H. Stanley, Vice President, Nuclear Operations  
R. Krich, Vice President, Regulatory Services  
DCD - Licensing  
J. Dimmette, Jr., Site Vice President  
G. Barnes, Quad Cities Station Manager  
C. Peterson, Regulatory Affairs Manager  
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State Liaison Officer, State of Iowa  
Chairman, Illinois Commerce Commission  
W. Leech, Manager of Nuclear  
MidAmerican Energy Company

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-254; 50-265  
License Nos: DPR-29; DPR-30

Report Nos: 50-254/99012(DRS); 50-265/99012(DRS)

Licensee: The Commonwealth Edison Company

Facility: Quad Cities Nuclear Generating Station  
Units 1 and 2

Location 22710 206<sup>th</sup> Avenue North  
Cordova, IL 61242

Inspection Dates: June 28 through July 16, 1999

Inspectors: H. A. Walker, Lead Inspector  
R. Mendez, Reactor Engineer  
C. E. Miller, Senior Resident Inspector

Approved by: J. M. Jacobson, Chief,  
Mechanical Engineering Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

Quad Cities Nuclear Power Station, Units 1 & 2  
NRC Inspection Report 50-254/99012(DRS); 50-265/99012(DRS)

The report covers a two week inspection by two Region based inspectors and one resident inspector. This was an announced inspection to review the corrective action process which included the methods used for identification, cause investigation and correction of quality related problems. The inspectors used inspection procedure IP 71152, "Identification and Resolution of Problems," to conduct the inspection.

Inspection findings were assessed according to potential risk significance, and were assigned colors of GREEN, WHITE, YELLOW, or RED. GREEN findings are indicative of issues that, while not necessarily desirable, represent little risk to safety. WHITE findings would indicate issues with some increased risk to safety, and which may require additional NRC inspections. YELLOW findings would be indicative of more serious issues with higher potential risk to safe performance and would require the NRC to take additional actions. RED findings represent an unacceptable loss of margin to safety and would result in the NRC taking significant actions that could include ordering the plant shut down. The findings, considered in total with other inspection findings and performance indicators, will be used to determine overall plant performance.

### Reactor Safety Issues

- a. Green. Two instances of inadequate or untimely corrective actions, noted during the inspection, were categorized by the significance determination process as being of low risk significance. These items were:
  - Corrective actions to address a January 1998 Unit 1 emergency diesel generator (EDG) failure to start were postponed in some cases and in others only partially completed. (Reference Report Section 4OA1.3, page 5 )
  - Excessive thrust conditions, found during testing of motor operated valves (MOVs) from March 1997 through July 2, 1999, were not identified to management and did not receive appropriate corrective action to preclude recurrence. As a result, the cause of the problem was not identified and appropriate corrective action was not taken. This is a non-cited violation. (Reference Report Section 4OA1.4, page 6)
- b. The root cause report and the corrective actions, approved by the Plant Operations Review Committee and the Corrective Action Review Board, did not fully address the repetitive problem of excessive use of overtime. There were 177 instances between February 1 and 28, 1999, where station procedures were not followed to control overtime of plant workers. Further corrective actions were being developed to ensure that overtime violations did not continue. There were no known incidents where the excessive use of overtime directly impacted or affected the safety of the plant; however, the repetitive failure to follow procedures to control overtime is a non-cited violation. (Reference Report Section 4OA1.4, page 8)

## Report Details

### Summary of Plant Status

Units 1 and 2 operated at or near full power for the entire inspection period.

#### **4. OTHER ACTIVITIES (OA)**

##### 4OA1 Identification and Resolution of Problems

###### .1 Corrective Action Program Review

###### a. Inspection Scope

The inspectors assessed the methods used at Quad Cities for problem identification, cause determination and correction. The inspection included a review of applicable procedures and records for adequate documentation, appropriate reviews and corrective actions. The corrective action program and its effectiveness was discussed with selected licensee personnel which included management and supervision as well as engineering and craftsmen.

###### b. Observations and Findings

No safety significant problems were identified in this area.

###### .2 Problem Identification

###### a. Inspection Scope

The inspectors selected and reviewed 42 problem identification forms (PIFs), previously categorized by licensee personnel as "significant conditions adverse to quality," for proper documentation and classification. Plant personnel were interviewed to determine their willingness to document problems.

###### b. Observations and Findings

Interviews with personnel of various disciplines indicated that most workers were not hesitant to write PIFs and report problems. The inspectors verified that licensee personnel were cognizant of and understood the corrective action process and that adequate communications existed for the prompt identification and resolution of problems. The inspectors noted that licensee personnel were writing an average of 4000 to 5000 PIFs per year. This number indicated that the threshold for using PIFs to document problems was relatively low.

No safety significant problems were identified in this area.

.3 Problem Resolution and Correction

a. Inspection Scope

The inspectors reviewed 42 PIFs, previously categorized by licensee personnel as “significant conditions adverse to quality,” to verify proper corrective actions, adequate priorities, cause determination, and actions taken as well as proper status and tracking of actions. Corrective action effectiveness was evaluated when possible.

b. Observations and Findings

The PIFs, used for problem identification, were usually closed after the problem was evaluated, required actions were determined and planned actions were entered into the Action Tracking System. In some cases, the PIF was closed when another document such as an engineering request or a work request was written. Closing the PIF prior to completion of required actions has some risks involved because the items could be closed prior to completion of required actions.

For some of the PIFs reviewed, appropriate actions were not performed or the actions completed were inadequate. An example is noted below.

Emergency Diesel Generator Failure to Start Problem: A root cause investigation followed a failure of the Unit 1 emergency diesel generator (EDG) to start in January 1998. Root cause report Q1998-00722 dealt with the 1998 failure and other EDG start failures at Quad Cities. Many corrective actions recommended in this report were completed, others were partially complete, several were rescheduled, and some were not performed at all.

One significant action to improve the reliability of the EDGs with an air start system modification was recommended in 1992 by an engineering firm hired to compare Quad Cities plant design with the requirements of 10CFR50 Appendix A. This recommendation to add an additional bank of air start motors was rejected by station management at that time. Later, due to continued EDG starting problems, the station reconsidered the recommendation. This item was entered in the nuclear tracking system as item # 007-200-97-QRCR01-01. Licensee personnel stated that the modification was scheduled for installation in the year 2000 even though the modification had not been funded or designed. The failure to take adequate and timely corrective actions on EDG starting problems was previously documented in NRC Inspection report 50-254/98004; 50-265/98004.

Based on occasional EDG start failures, redundant EDGs and available off site power this issue was determined to be of low risk significance and was categorized as “Green.” The problem was entered in the corrective action system as tracking system item # 007-200-97-QRCR01-01.

#### .4 Safety Review Committees

##### 1. Inspection Scope

The inspectors reviewed the methods used by the four separate and independent review groups at Quad Cities to verify adequacy, control and compliance with regulatory requirements. The review included the controlling procedures and selected records of activities and attendance at selected group meetings when possible. In addition, the functions, activities and findings of the four groups were discussed with cognizant licensee personnel including selected committee members.

##### 2. Observations and Findings

Most reviews and assessment completed by the independent review committees were good and actions and recommendations were appropriate. A few items were noted where the actions were inadequate. These items are discussed below.

- Event Screening Committee (ESC)

The inspectors noted several cases during Event Screening Committee (ESC) meetings which indicated appropriate attention was not being focused on risk significant problems. During motor operated valve (MOV) testing, over thrust issues were documented on test reports from March 1997 through July 2, 1999, but PIFs were not written. The conditions were not properly identified to management and the problem cause and corrective actions were not addressed. After discussions of these issues with the inspectors, licensee personnel identified the over thrusting problems as significant conditions adverse to quality and appropriate cause investigation and corrective actions to preclude repetition were initiated.

Unit 2 outboard drywell spray valve 2-1001-233B failed to open during surveillance testing on June 29, 1999. The valve opened and closed satisfactorily after manual operation. The ESC review did not require cause investigation and action to prevent recurrence for this problem.

PIF Q1999-02249 identified that the 2-1001-19B residual heat removal cross-tie valve closed at over 30,000 pounds of thrust higher than the as-left thrust setting of about 48000 pounds. The thrust for this valve was far outside the expected thrust window for the valve and exceeded the calculated limits for several valve components. The ESC did not require or recommend cause investigation and no action item was assigned to take further action on the issue. No comparison was made with the over-thrust condition found on this valve and other valves such as the drywell spray valve described in the previous paragraph. The committee did not ask for a trend on over-thrusting conditions although several other valves, tested since November of 1998, were found with significant excessive thrust.

The inspectors asked for trending information on over-thrust conditions and found that since 1997, at least 10 valves tested had exhibited as-found thrust conditions of at least 20 percent higher than the as-left conditions. One valve tested in late 1998 showed over 43,000 pounds of excess thrust which was a 78 percent increase over the as-left setting. PIFs were not written for most of these valves; therefore, the excessive thrust problem did not show up as a trend. Two of the valves (high pressure coolant injection valves 1-2301-4 and 1-2301-8) were later determined by licensee personnel to not meet thrust limits and required engineering evaluations to determine the operability of the valves. Other valves were not evaluated for similar thrust variances, which could make calculations for thrust limits invalid. Criterion XVI "Corrective Action" of 10 CFR 50 requires that conditions adverse to quality be promptly identified and corrected. For significant conditions adverse to quality, the causes of the conditions must be determined and corrective action taken to preclude repetition. Contrary to the above requirements, significant conditions adverse to quality, found during testing of MOVs from March 1997 through July 2, 1999, did not receive appropriate corrective action to preclude repetition. The problems were not identified to management as significant conditions adverse to quality and the cause of the problem and required corrective actions were not determined or performed.

Following inspector discussions with licensee engineers and management, licensee personnel began a thorough investigation into the problems mentioned above, including performing operability evaluations for the valves found outside the acceptable thrust windows. Although these evaluations had not been completed, MOVs tested operated satisfactorily with the exception of the valve described in the first paragraph of this Section. The failure to take effective corrective actions on this issue was considered a **Non-Cited Violation (50-254/99012-01; 50-254/99012-01)** in accordance with NRC enforcement policy.

Since nine of the ten valves found outside the acceptable thrust windows functioned as required during testing, the issue was determined to be of low risk significance and was categorized as "Green." Several PIFs had been written on this problem; therefore, the problem was appropriately entered into the corrective action system.

- Corrective Action Review Board (CARB)

No safety significant findings were identified in this area.

- Plant Operations Review Committee (PORC)

The Plant Operations Review Committee (PORC) was responsible for on-site review of problems and proposed corrective actions. The PORC reviewed a root cause report detailing multiple failures to adequately address Generic Letter 82-12 "Nuclear Power Plant Staff Working Hours." The root cause report corrective actions, which were approved by the PORC and the CARB, did not



appear to fully address the scope of the problem. After reviewing the corrective actions for at least eleven PIFs written on the overtime problem since 1998, the inspectors found that the corrective actions taken were similar to previous actions on this issue, which were not effective. The root cause package did not detail how the actions proposed differed with the previous unsuccessful attempts to correct the problem. PIF Q1999-01349 was written to identify 177 instances from February 1, 1999, through February 28, 1999, where station procedures were not followed to control overtime of workers.

The failure to follow Quad Cities Administrative Procedure 2400-03, "Overtime Guidelines," Revision 6, which is a procedure required by Regulatory Guide 1.33, is a violation of Section 6.8.A.1 of the Technical Specification. Since this violation was identified by licensee personnel, the issue was entered in the licensee's corrective action program as PIF Q1999-01349. Corrective actions were being developed by licensee personnel. This violation is considered a **Non-Cited Violation (50-254/99012-02; 50-265/99012-02)** in accordance with NRC enforcement policy.

Since there were no known incidents where the excessive use of overtime directly impacted or affected the safety of the plant or plant personnel, this issue was determined to be of low risk significance.

- Nuclear Safety Review Board (NSRB)

The Nuclear Safety Review Board (NSRB) was responsible for off-site review of problems and proposed corrective actions.

No safety significant findings were identified in this area.

## .5 Operating Experience Feedback

### 1. Inspection Scope

The inspectors reviewed the methods used to control and evaluate outside or industry information and problem notifications such as Generic Letters, Information Notices, Service Information Letters (SILs), etc. The review was to verify that licensee personnel received and evaluated the information and that corrective actions were taken when appropriate. The review included the controlling procedure and records of actions taken on selected problem notification documents.

### 2. Observations and Findings

The methods used for evaluating operating experience feedback appeared to be adequate and were functioning properly; however, some problems were noted.

In 1991, General Electric issued SIL 536, which identified failures of hydraulic control unit (HCU) liquid level switches caused by high velocity nitrogen impinging on the switches when the HCU accumulator was being charged or discharged. These level switches sensed the water level in the lower portion of the nitrogen tank piping and actuation of the level switch would indicate internal leakage across the accumulator piston seals. The licensee's response to the SIL stated that no action was required since the accumulator charging procedures did not require use of the HCU cartridge valve. The present procedure (QCOP 0300-06) for charging the HCU accumulators required the use of the cartridge valve to throttle nitrogen flow. Licensee personnel issued PIF Q1999-02335 to determine why the vendor recommendations were not followed.

The inspectors noted that some of the older SILs, issued more than 15 years ago, lacked adequate documentation of the actions taken. Some of the records for the older SILs stated that the recommended actions were fully implemented or in some cases were not implemented. The reasons for not implementing the SILs were often not documented. Licensee personnel informed the inspectors that there was an internal commitment to re-review all SILs issued by GE.

In another case, GE SIL 155, issued in 1979 for problems with SBM type switches, was inadequately addressed and no action was taken to address the described problem. The issue was reopened in 1997 as the result of a 1996 failure of SBM switches at LaSalle. PIF Q1997-00703 was written on the problem and actions had been taken or were planned to change out the switches.

## .6 Audits and Surveillances

### 1. Inspection Scope

The inspectors reviewed the methods used to perform and control Nuclear Oversight audits and surveillances. The review included the controlling procedures and selected 1997, 1998 and 1999 audit and surveillance records as well as discussions with cognizant licensee personnel. In addition, the inspectors verified that the corrective action program was being audited at least once every six months.

### 2. Observations and findings

No significant findings were identified in this area.

## .7 Review of Non-Cited Violations

### 1. Inspection Scope

The inspectors reviewed a list of the non-cited violations (NCVs) issued during the past two years and selected seven of the NCVs for further review.

b. Observations and Findings

For the seven NCVs reviewed, the described cause investigations and actions to prevent recurrence were appropriate. For two of the NCVs, the described actions did not include immediate actions to correct the described problems. Licensee personnel investigated and determined that the appropriate remedial actions had been taken. PIF Q1999-0231 was written on the failure to document the required remedial actions.

No safety significant problems were identified in this area.

40A5 Management Meetings

.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. J. P. Dimmette, Jr. and other members of licensee management in an exit meeting on July 16, 1999. The inspectors noted that no documents provided during the inspection were identified as proprietary. Licensee personnel acknowledged the information presented and agreed that no proprietary information was provided to the inspectors.

## **PARTIAL LIST OF PERSONS CONTACTED**

### Commonwealth Edison Company

G. Barnes, Station Manager  
W. Beck, Deputy Regulatory Assurance Manager  
R. Chrzanowski, Nuclear Oversight, Assessment Manager  
J. Dimmette, Jr., Site Vice President  
T. Fuhs, NRC Coordinator, Regulatory Assurance  
K. Giadrosich, Nuclear Oversight Manager  
V. Klco, Corporate Corrective Action Program Manager  
R. Kvick, Vice President for Key Services  
P. O'Neal, Corrective Action Program Analyst  
J. Perry, Vice President  
C Peterson, Regulatory Assurance Manager  
J. Purkis, System Engineering Manager  
C. VanDenburg, Corrective Action Program Manager  
D. Wozniak, Engineer Manager

### NRC

L. Collins, Resident Inspector  
J. Jacobson, Chief, Mechanical Engineering Branch  
M. Ring, Chief, Projects Branch One

## **INSPECTION PROCEDURES USED**

IP 71152, "Identification and Resolution of Problems."

## **ITEMS OPENED, CLOSED, AND DISCUSSED**

### OPENED

No NRC inspection items were identified during this inspection.

### CLOSED

No items identified in previous NRC inspections were closed during this inspection.

### DISCUSSED

No items identified in previous NRC inspections were reviewed or discussed during this inspection.



## LIST OF DOCUMENTS REVIEWED

The following is a list of licensee documents reviewed during the inspection, including documents prepared by others for the licensee. Inclusion of a document on this list does not imply that NRC inspectors reviewed the entire documents, but, rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. In addition, inclusion of a document on this list does not imply NRC acceptance of the document, unless specifically stated in the body of the inspection report.

### Corrective Action Program Description

CAP-1, "Problem Identification Form Threshold Information Handbook," Revision 2.  
CAP-2, "Significant Apparent Cause Evaluation (SACE) Handbook," Revision 1.  
CAP-3, "Root Cause Investigation and Report Handbook," Revision 1.  
CAP-4, "Trend Investigation and Report Handbook," Revision 0.  
CAP-5, "Effectiveness Review Handbook," Revision 0.  
CAP-6, "Coding and Trending Handbook," Revision 0.

### Procedures

QARP 1000-01, "Safe Shutdown Procedure C1," Revision 12.  
QCAP 1100-04, "Procedure Revision, Revision and Approval," Revision 26.  
QCGP 1-5, "Master Start-up Checklist," Revision 24.  
QCIS 1000-01, "High Drywell Pressure Scram Calibration and Functional Test," Revision 8.  
QCIS 1000-02, "High Drywell Pressure Scram Functional Test," Revision 6.  
QCMMS 1515-24, "Hancock 7150W, Integral Bonnet, Globe Valve Maintenance," Revision 0.  
QCMMS 6600-02, "Emergency Diesel Generator Preventative Maintenance Quarterly Inspection," Revision 11.  
QCMMS 6600-05, "Emergency Diesel Generator Six Year Preventative Maintenance Inspection," Revision 0.  
QCOP 0300-06, "CRD Accumulator Charging," Revision 0.  
QCOS 1600-41, "Weekly Torus to Reactor Building Vacuum Breaker Position Verification," Revision 0.  
QCOS 6600-08, "Quarterly 1/2 Diesel Generator Cooling Water to Unit 1 and Unit 2 ECCS Room Coolers Flow Test," Revision 7.  
QCTP 0500-10, "Reactor Vessel Designed Cycles," Revision 1.  
QCTS 0410-02, "Secondary Containment Capability Test," Revision 2.  
NSP-AP-1004, "Corrective Action Program Process," Revision 1.  
NSP-AP-4004, "Corrective Action Program Procedure," Revision 4.

### Problem Identification Forms (PIFs)

Q1995-02237      Recirculation MG set increased speed from 95.5 % to 100 % on its own.  
Q1996-00515      Multitude of problems with SecFD-6 caused delays in Bus 14-1 OOS.  
Q1997-00703      Three SBM control switches were found to have cracked Lexon cam followers.

Q1997-02566 Shims added to the U-1/2 and U-2 Diesel air start motors.  
 Q1997-02633 Critical Dimension not verified on Parts Evaluation for U-2, U-1/2 EDGs.  
 Q1997-02735 Failure to Submit 90 Day Special Report  
 Q1997-03147 LERs Resulting From Not Complying with Tech Specs  
 Q1997-04506 Ability to Perform External Flood Protection Measures in a Timely Manner  
  
 Q1997-04891 Unit 1 EDG Failed Time Delay Relay  
 Q1997-05050 Review of Dresden Reactor Building Elevated Temperature Calculation Findings  
  
 Q1998-00014 Potential LER Due to Inadequate Relay Verification  
 Q1998-00181 Surveillances Past Critical Due Date  
 Q1998-00240 System Leak Detection Surveillance Exceeded Critical Date  
 Q1998-00709 Licensee identified, non-repetitive, and corrected errors in the EDG loading analysis.  
  
 Q1998-00722 Past Diesel Generator Start Failures  
 Q1998-03170 Scram Discharge Volume Level Transmitter Circuit Board  
 Q1998-04926 Fuel bundle mis-positioned.  
 Q1998-04972 Fuel bundle mis-positioned.  
 Q1998-05431 Basement entrances to the 1A and 1B corner rooms were not barricaded and posted as a high radiation area.  
  
 Q1999-00231 Failure to provide a description of the immediate corrective actions taken for PIFs 98-04972 and 98-05431  
  
 Q1999-00317 Release of material outside the RPA with direct radiation measurements above background.  
  
 Q1999-00745 Scram Discharge Volume Level Transmitters Out of Calibration After Cleaning  
  
 Q1999-00901 PORC Approved TMOD With Inadequate Testing Criteria  
 Q1999-01349 Nuclear Oversight Identified Inadequate Management Controls of Generic Letter 82-12 Overtime  
  
 Q1999-01871 Unit 2 Reactor Building Secondary Containment Issue  
 Q1999-01940 Failure of Breaker to Fully Close  
 Q1999-01942 Breaker Failed After Being Received From Vendor  
 Q1999-01948 Computer UPS Battery Failed Surveillance  
 Q1999-01953 1B Core Spray Room Cooler Trip Alarm  
 Q1999-01957 2A Recirculation MG Set Vent Fan Trip  
 Q1999-01961 Unit ½ EDG Component Cooling Water Pump Failure  
 Q1999-01978 Apparent Discrepancies in Operability Evaluation  
 Q1999-02240 Breaker Internal Linkage Was Twisted and Damaged  
 Q1999-02249 As-Found Thrust Values Exceed Calculation Structural Limits for MO 2-1001-19B"  
  
 Q1999-02274 Discrepancy Between Unit 2 RFP Flow Indicators and Total Flow  
 Q1999-02335 SIL 536 Recommendations not implemented at Quad Cities  
 Q1999-02341 Valves calculated structural & seismic limits potentially exceeded in past test.  
  
 Q1999-02351 82-12 TIR actions may not be adequate.  
 Q1999-02356 Conditions where PIFs should have been generated.

Q1999-02391	U1 EDG Failure to Start during QCOS 6600-01 Monthly Surveillance
Q1999-03921	Missed Vacuum Breaker Tech Spec Surveillance
Q1999-05018	Potential Missed Technical Specification Primary Containment Sump Flow Surveillance

**Assessment and Audits**

CE-98-05	ComEd Engineering Audit
NOA-04-99-018	Engineering Self Assessment and OPEX
NOA-04-99-020	VETIP Program
NOA-04-99-021	Corrective Action Program
NOA-04-99-046	Engineering Industry Experience Review
QAA-04-98-002	Fire Protection Program
QAS-04-98-005	Fire Protection Program Audit
QAS-04-98-007	Maintenance Rule Program
QAS-04-98-055	Flow Accelerated Corrosion Program
QAS-04-98-056	Simulator Training
QAS-04-98-074	Operation Briefings, Peer Checks and Discrete Component Operation Program
QAS-04-98-077	Configuration Control Training
QAS-04-98-081	Environmental Qualification Program



## LIST OF ACRONYMS USED

ATM	Action Tracking Management
CARB	Corrective Action Review Board
EDG	Emergency Diesel Generator
ESC	Event Screening Committee
GE	General Electric
HCU	Hydraulic Control Unit
LER	Licensee Event Report
MOV	Motor Operated Valves
NCV	Non-cited Violation
NSRB	Nuclear Safety Review Board
NTS	Nuclear Tracking System
PORC	Plant Operations Review Committee
PIF	Problem Identification Form
SIL	Service Information Letter
UPS	Un-interruptible Power Supply