

RAR-91-33

August 1, 1991

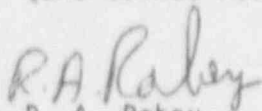
U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
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SUBJECT: Quad Cities Nuclear Station Units 1 and 2  
Monthly Performance Report  
NRC Docket Nos. 50-254 and 50-265

Enclosed for your information is the Monthly Performance Report covering the operation of Quad-Cities Nuclear Power Station, Units One and Two, during the month of July 1991.

Respectfully,

COMMONWEALTH EDISON COMPANY  
QUAD-CITIES NUCLEAR POWER STATION



R. A. Robey  
Technical Superintendent

RAR/CALS/dak

Enclosure

cc: A. B. Davis, Regional Administrator  
T. Taylor, Senior Resident Inspector

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QUAD-CITIES NUCLEAR POWER STATION

UNITS 1 AND 2

MONTHLY PERFORMANCE REPORT

JULY 1991

COMMONWEALTH EDISON COMPANY

AND

IOWA-ILLINOIS GAS & ELECTRIC COMPANY

NRC DOCKET NOS. 50-254 AND 50-265

LICENSE NOS. DPR-29 AND DPR-30

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## I. INTRODUCTION

Quad-Cities Nuclear Power Station is composed of two Boiling Water Reactors, each with a Maximum Dependable Capacity of 769 MWe Net, located in Cordova, Illinois. The Station is jointly owned by Commonwealth Edison Company and Iowa-Illinois Gas & Electric Company. The Nuclear Steam Supply Systems are General Electric Company Boiling Water Reactors. The Architect/Engineer was Sargent & Lundy, Incorporated, and the primary construction contractor was United Engineers & Constructors. The Mississippi River is the condenser cooling water source. The plant is subject to license numbers DPR-29 and DPR-30, issued October 1, 1971, and March 21, 1972, respectively; pursuant to Docket Numbers 50-254 and 50-265. The date of initial Reactor criticalities for Units One and Two, respectively were October 18, 1971, and April 26, 1972. Commercial generation of power began on February 18, 1973 for Unit One and March 10, 1973 for unit Two.

This report was compiled by Cynthia A. Losek-Short and Debra Kelley, telephone number 309-654-2241, extensions 2938 and 2240.

## II. SUMMARY OF OPERATING EXPERIENCE

### A. Unit One

Unit One began the month of July operating on a load drop which was requested by Chicago Load Dispatch. The load drops that occurred within the month were requested by Chicago Load Dispatch and for a drywell entry. The load drops that were requested by Chicago Load Dispatch occurred July 1, 4, 5, 7, 10, 11, 13, 14, 15, 16, 18, 19, 24, 25, 26, 28, 30, and 31. The load drop to 200 MWE for drywell entry occurred July 20th.

### B. Unit Two

Unit Two began the month of July operating in Economic Generation Control (EGC). The unit was taken out of EGC on the 3, 4, 5, 6, 9, 11, 12, 20, 21, 22, 23, 28 and 30 per Chicago Load Dispatch requests. The unit was also taken out of EGC on July 10 for a Drywell entry. The reactor was scrammed on July 13 at 1239 hours for an entry to the Drywell to work on equipment. Reactor became critical again on July 15 at 2300 hours.

III. PLANT OR PROCEDURE CHANGES, TESTS, EXPERIMENTS,  
AND SAFETY RELATED MAINTENANCE

A. Amendments to Facility License or Technical Specifications

There were no Amendments to the Facility License or Technical Specifications for the reporting period.

B. Facility or Procedure Changes Requiring NRC Approval

There were no Facility or Procedure changes requiring NRC approval for the reporting period.

C. Tests and Experiments Requiring NRC Approval

There were no Tests or Experiments requiring NRC approval for the reporting period.

D. Corrective Maintenance of Safety Related Equipment

The following represents a tabular summary of the major safety related maintenance performed on Units One and Two during the reporting period. This summary includes the following: Work Request Numbers, Licensee Event Report Numbers, Components, Cause of Malfunctions, Results and Effects on Safe Operation, and Action Taken to Prevent Repetition.

# UNIT 1 MAINTENANCE SUMMARY

<u>WORK REQUEST</u>	<u>SYSTEM</u>	<u>EID DESCRIPTION</u>	<u>WORK PERFORMED</u>
Q87815	0912	Repair broken lug on white conductor of Cable 1143.	As Found: Found wire from Cable #1143 taped and laying at the bottom of 912-2 panel. As Left: Installed #14515 wire, window splice, and lug properly in 912-2 panel and taped wire with 33T tape.
Q89084	3102	Body to bonnet gasket needs replacement please repair.	As Found: Fitting for bonnet gasket was damaged and some metal on the bolt head interfered with the upper bonnet half (causing gasket not to seal). As Left: Removed old bonnet and replaced with new bonnet and gasket.
Q43320	1002	Inspect and repair as needed the motor bearings for 1B RHR pump motor.	As Found: Windings were found burnt and grounded. The rotor was also bowed on the motor. As Left: Installed new motor under WR #Q43490.
Q93802	1641	Category I - Torus Level Indication 12.9' too low, calibrate and repair indications as needed.	As Found: Found transmitter reading 0.6 MA low over the whole range. As Left: Performed loop calibration on xmitter, indicator and recorder using Std #033164Q and #127134Q. Documented on QIS #54-54. Replace O-Rings for E.Q.
Q91291	8300	Investigate broken glass on 24/28 VDC overvoltage relay in large battery charger room. (Replace cover).	As Found: Found broken glass on relay cover. As Left: Replaced glass on cover (Use 1/8" plexiglass).

# UNIT 2 MAINTENANCE SUMMARY

<u>WORK REQUEST</u>	<u>SYSTEM</u>	<u>EID DESCRIPTION</u>	<u>WORK PERFORMED</u>
Q93788	3127	Investigate and repair U2 HCV 58-23 Rod R-6 drifted in from 48 to 00 and beyond (suspect leaking scram valve).	As Found: Stem was rubbing on two sides 180° apart from top and bottom. The valve seat was worn, ball check was marked up, there was slight rust internal to the sleeve is scored from stem rubbing, and the disk has uneven seat mark but was seating 360°. As Left: Installed new stem and adjusted HCV bracket so operator was level, new packing ball check was also installed.
Q92918	0750	Repair IRM 12 which is spiking High High causing 1/2 scrams.	As Found: Chassis reading was to be 15 units. As Left: IRM was indicating 15 on chassis. All the tests that were done looked normal. Removed High voltage power supply checked and cleaned connector under pot. Reinstalled High voltage power supply.
Q88898	0756	Investigate and repair APRM #1 which spiked downscale inoperable causing 1/2 scram and released increasing 12-4. (Refer to WR #87391).	As Found: Found APRM #1 to be bypassed. As Left: Inspected all connections on page bus, everything looked normal. Inspected and cleaned all page connectors. Found Pin 14 on connector J39 to be recessed a little and pushed it back to its original position. Performed function test ST-3-2 on APRM Ch. 1 tested normal, also performed QIS 3-1.
Q93954	1201	For QOS 1200-1 repair 2-1201-2 valve whose stroke timed at 30.6 seconds which exceeds its maximum T.S. of 30 seconds.	As Found: Valve was 3/8" off of backseat. As Left: Adjusted 1-4 limits one turn CCW to give 9/16" off of backseat stroked valve three times and timed it at 28.76 seconds and 29.06 seconds.



#### IV. LICENSEE EVENT REPORTS

The following is a tabular summary of all licensee event reports for Quad-Cities Units One and Two occurring during the reporting period, pursuant to the reportable occurrence reporting requirements as set forth in sections 6.6.B.1 and 6.6.B.2 of the Technical Specifications.

##### UNIT 1

<u>Licensee Event Report Number</u>	<u>Date</u>	<u>Title of Occurrence</u>
91-010*	06-14-91	1/2 Scram on Loss of A 24/48 VDC (near Miss).
91-010	06-14-91	Closure of S/D Cooling Valves during Surveillance.

Last month LER 91-010\* was reported with the wrong Title of Occurrence the title should have been Closure of S/D Cooling Valves during Surveillance. There were no licensee event reports for Unit 1 for this reporting period.

##### UNIT 2

91-07	07-13-91	Low Water Level Scram.
91-08	07-23-91	Recirc Sample Valve 2-220-45 Closure.

## V. DATA TABULATIONS

The following data tabulations are presented in this report:

- A. Operating Data Report
- B. Average Daily Unit Power Level
- C. Unit Shutdowns and Power Reductions

# **APPENDIX C** **OPERATING DATA REPORT**

DOCKET NO. 50-254  
UNIT One  
DATE August 3, 1991  
COMPLETED BY Cythina Losek-Short  
TELEPHONE 309-654-2241

OPERATING STATUS 50000 070191

1. REPORTING PERIOD: 52400 073191 GROSS HOURS IN REPORTING PERIOD: 744

2. CURRENTLY AUTHORIZED POWER LEVEL (MWe): 2511 MAX. DEPEND. CAPACITY (MWe-Net): 769  
DESIGN ELECTRICAL RATING (MWe-Net): 789

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): \_\_\_\_\_

4. REASONS FOR RESTRICTION (IF ANY): \_\_\_\_\_

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL	744.0	1523.0	133004.9
6. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	3421.9
7. HOURS GENERATOR ON LINE	744.0	1396.3	128765.6
8. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	909.2
9. GROSS THERMAL ENERGY GENERATED (MWH)	1695427.0	3085838.0	275817278.0
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	545749.0	990151.0	89384005.0
11. NET ELECTRICAL ENERGY GENERATED (MWH)	528371.0	930215.0	84104456.0
12. REACTOR SERVICE FACTOR	100.0	29.9	78.6
13. REACTOR AVAILABILITY FACTOR	100.0	29.9	80.6
14. UNIT SERVICE FACTOR	100.0	27.4	76.1
15. UNIT AVAILABILITY FACTOR	100.0	27.4	76.6
16. UNIT CAPACITY FACTOR (Using MDC)	92.4	23.8	64.6
17. UNIT CAPACITY FACTOR (Using Design MWe)	90.0	23.2	63.0
18. UNIT FORCED OUTAGE RATE	0.0	192.6	198.3

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):

20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: \_\_\_\_\_

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):

	FORECAST	ACHIEVED
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

# **APPENDIX C** **OPERATING DATA REPORT**

DOCKET NO. 50-265  
UNIT Two  
DATE August 3, 1991  
COMPLETED BY Cythina Losek-Short  
TELEPHONE 309-654-2241

OPERATING STATUS 50000 070191

1. REPORTING PERIOD: 52400 073191 GROSS HOURS IN REPORTING PERIOD: 746

2. CURRENTLY AUTHORIZED POWER LEVEL (MWe): 2511 MAX. DEPEND. CAPACITY (MWe-Net): 769  
DESIGN ELECTRICAL RATING (MWe-Net): 789

3. POWER LEVEL TO WHICH RESTRICTED (IF ANY) (MWe-Net): \_\_\_\_\_

4. REASONS FOR RESTRICTION (IF ANY): \_\_\_\_\_

	THIS MONTH	YR TO DATE	CUMULATIVE
5. NUMBER OF HOURS REACTOR WAS CRITICAL	685.6	4572.6	130261.8
6. REACTOR RESERVE SHUTDOWN HOURS	0.0	0.0	2985.8
7. HOURS GENERATOR ON LINE	668.3	4524.8	126811.8
8. UNIT RESERVE SHUTDOWN HOURS	0.0	0.0	702.9
9. GROSS THERMAL ENERGY GENERATED (MWH)	1513058.0	10507158.0	273738479.0
10. GROSS ELECTRICAL ENERGY GENERATED (MWH)	483328.0	3402009.0	87863216.0
11. NET ELECTRICAL ENERGY GENERATED (MWH)	467183.0	3291221.0	83121773.0
12. REACTOR SERVICE FACTOR	92.2	89.9	77.7
13. REACTOR AVAILABILITY FACTOR	92.2	89.9	79.5
14. UNIT SERVICE FACTOR	89.8	88.9	75.6
15. UNIT AVAILABILITY FACTOR	89.8	88.9	76.1
16. UNIT CAPACITY FACTOR (Using MDC)	81.7	84.1	64.5
17. UNIT CAPACITY FACTOR (Using Design MWe)	79.6	82.0	62.8
18. UNIT FORCED OUTAGE RATE	11.0	77.9	85.8

19. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH): \_\_\_\_\_

20. IF SHUT DOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP: \_\_\_\_\_

21. UNITS IN TEST STATUS (PRIOR TO COMMERCIAL OPERATION):

	FORECAST	ACHIEVED
INITIAL CRITICALITY	_____	_____
INITIAL ELECTRICITY	_____	_____
COMMERCIAL OPERATION	_____	_____

**APPENDIX B  
AVERAGE DAILY UNIT POWER LEVEL**

DOCKET NO. 50-254  
 UNIT One  
 DATE August 3, 1991  
 COMPLETED BY Cythina Losek-Shore  
 TELEPHONE 309-654-2241

MONTH July 1991

**DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)**

1	<u>662</u>
2	<u>776</u>
3	<u>746</u>
4	<u>561</u>
5	<u>607</u>
6	<u>777</u>
7	<u>725</u>
8	<u>754</u>
9	<u>779</u>
10	<u>749</u>
11	<u>727</u>
12	<u>775</u>
13	<u>739</u>
14	<u>664</u>
15	<u>708</u>
16	<u>723</u>

**DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)**

17	<u>781</u>
18	<u>718</u>
19	<u>724</u>
20	<u>398</u>
21	<u>677</u>
22	<u>758</u>
23	<u>762</u>
24	<u>727</u>
25	<u>726</u>
26	<u>701</u>
27	<u>746</u>
28	<u>674</u>
29	<u>769</u>
30	<u>687</u>
31	<u>681</u>

**INSTRUCTIONS**

On this form, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

These figures will be used to plot a graph for each reporting month. Note that when maximum dependable capacity is used for the net electrical rating of the unit, there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases, the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

**APPENDIX B  
AVERAGE DAILY UNIT POWER LEVEL**

DOCKET NO. 50-265  
 UNIT Two  
 DATE August 3, 1991  
 COMPLETED BY Cythina Losek-Shor  
 TELEPHONE 209-654-2241

MONTH July 1991

**DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)**

1	<u>755</u>
2	<u>744</u>
3	<u>678</u>
4	<u>653</u>
5	<u>661</u>
6	<u>724</u>
7	<u>770</u>
8	<u>774</u>
9	<u>679</u>
10	<u>576</u>
11	<u>739</u>
12	<u>700</u>
13	<u>32</u>
14	<u>-7</u>
15	<u>-8</u>
16	<u>50</u>

**DAY AVERAGE DAILY POWER LEVEL  
(MWe-Net)**

17	<u>651</u>
18	<u>775</u>
19	<u>775</u>
20	<u>709</u>
21	<u>720</u>
22	<u>761</u>
23	<u>736</u>
24	<u>740</u>
25	<u>733</u>
26	<u>740</u>
27	<u>699</u>
28	<u>729</u>
29	<u>743</u>
30	<u>729</u>
31	<u>695</u>

**INSTRUCTIONS**

On this form, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

These figures will be used to plot a graph for each reporting month. Note that when maximum dependable capacity is used for the net electrical rating of the unit, there may be occasions when the daily average power level exceeds the 100% line (or the restricted power level line). In such cases, the average daily unit power output sheet should be footnoted to explain the apparent anomaly.

**APPENDIX D  
UNIT SHUTDOWNS AND POWER REDUCTIONS**

**DOCKET NO.** 50-254 **COMPLETED BY** Cynthia A. Losek-Short

**UNIT NAME** Unit 1 **TELEPHONE** 309-654-2241

**DATE** August 1, 1991 **REPORT MONTH** August, 1991

NO.	DATE	TYPE F OR S	DURATION (HOURS)	REASON	METHOD OF SHUTTING DOWN REACTOR	LICENSEE EVENT REPORT NO.	SYSTEM CODE	COMPONENT CODE	CORRECTIVE ACTION/COMMENTS
91-03	910720	S	12.4	B	5	- - - -	-	- - - -	Load Drop for Drywell Entry



## APPENDIX D

50-265

Unit 2

August 1, 1991

August, 1991

COMPLETED BY Cynthia A. Josek-Short

TELEPHONE 309-654-2241

Reactor Shutdown to Work on Leaking  
Condenser Tube.



## VI. UNIQUE REPORTING REQUIREMENTS

The following items are included in this report based on prior commitments to the commission:

### A. Main Steam Relief Valve Operations

There were no Main Steam Relief Valve Operations for the reporting period.

### B. Control Rod Drive Scram Timing Data for Units One and Two

The basis for reporting this data to the Nuclear Regulatory Commission are specified in the surveillance requirements of Technical Specifications 4.3.C.1 and 4.3.C.2.

The following table is a complete summary of Units One and Two Control Rod Drive Scram Timing for the reporting period. All scram timing was performed with reactor pressure greater than 800 PSIG.

RESULTS OF SCRAM TIMING MEASUREMENTS  
PERFORMED ON UNIT 1 & 2 CONTROL  
ROD DRIVES, FROM 1-1-91 TO 12/31/91

DATE	NUMBER OF RODS	AVERAGE TIME IN SECONDS AT % INSERTED FROM FULLY WITHDRAWN				MAX. TIME FOR 90% INSERTION	DESCRIPTION
		5	20	50	90		
		0.375	0.900	2.00	3.5	7 sec.	Technical Specification 3.3.C.1 & 3.3.C.2 (Average Scram Insertion Time)
1-30-91	1	0.28	0.63	1.37	2.45	H-7 (2.45)	U2 scram timing for accumulator replacement on H-7
1-30-91	1	0.30	0.72	1.53	2.67	F-6 (2.67)	U2 scram timing for accumulator replacement on F-6
4-30-91	22/177	0.29	0.67	1.46	2.57	H-11 (3.0)	U1, Hot Scram Timing during Start Up Sequence A&B, Cycle 12 (Paritial)
5-2-91	177	0.29	0.67	1.44	2.55	R-10 (3.27)	U1 Start Up Scram Timing Begin Cycle 12
5-5-91	89	0.31	0.68	1.43	2.51	B-4 (2.84)	U2 Scram Timing For Sequence A
5-6-91	1	0.26	0.62	1.40	2.52	E-12 (2.52)	U1 Scram Timing for WR on Scram Light
7-12-91	4	0.27	0.62	1.35	2.38	N-12 (2.42)	U1 Work Requests for Accumulator Replacement
7-17-91	1	0.28	0.62	1.32	2.32	R-6 (2.32)	U2 Scram Outlet Failure

scrmTIM

## VII. REFUELING INFORMATION

The following information about future reloads at Quad-Cities Station was requested in a January 26, 1978, licensing memorandum (78-24) from D. F. O'Brien to C. Reed, et al., titled "Dresden, Quad-Cities and Zion Station--NRC Request for Refueling Information", dated January 18, 1978.

QUAD CITIES REFUELING  
INFORMATION REQUEST

QTP 300-S32  
Revision 2  
October 1989

1. Unit: 01 Reload: 11 Cycle: 12
2. Scheduled date for next refueling shutdown: 7-5-92
3. Scheduled date for restart following refueling: 12-5-92
4. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment:  
NOT AS YET DETERMINED.
5. Scheduled date(s) for submitting proposed licensing action and supporting information:  
NOT AS YET DETERMINED.
6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures:  
NONE AT PRESENT TIME.
7. The number of fuel assemblies.
  - a. Number of assemblies in core: 724
  - b. Number of assemblies in spent fuel pool: 1405
8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned in number of fuel assemblies:
  - a. Licensed storage capacity for spent fuel: 3657
  - b. Planned increase in licensed storage: 0
9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity: 2009

QUAD CITIES REFUELING  
INFORMATION REQUEST

QTP 300-532  
Revision 2  
October 1989

1. Unit: Q2 Reload: 10 Cycles: 11
2. Scheduled date for next refueling shutdown: 12-28-91
3. Scheduled date for restart following refueling: 3-7-92
4. Will refueling or resumption of operation thereafter require a Technical Specification change or other license amendment:

NOT AS YET DETERMINED.

5. Scheduled date(s) for submitting proposed licensing action and supporting information:

NOT AS YET DETERMINED.

6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures:

NONE AT PRESENT TIME.

7. The number of fuel assemblies.

- a. Number of assemblies in core: 724
- b. Number of assemblies in spent fuel pool: 2287

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned in number of fuel assemblies:

- a. Licensed storage capacity for spent fuel: 3897
- b. Planned increase in licensed storage: 0

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity: 2009

## VIII. GLOSSARY

The following abbreviations which may have been used in the Monthly Report, are defined below:

ACAD/CAM	- Atmospheric Containment Atmospheric Dilution/Containment Atmospheric Monitoring
ANSI	- American National Standards Institute
APRM	- Average Power Range Monitor
ATWS	- Anticipated Transient Without Scram
BWR	- Boiling Water Reactor
CRD	- Control Rod Drive
EHC	- Electro-Hydraulic Control System
EOF	- Emergency Operations Facility
GSEP	- Generating Stations Emergency Plan
HEPA	- High-Efficiency Particulate Filter
HPCI	- High Pressure Coolant Injection System
HRSS	- High Radiation Sampling System
IPCLRT	- Integrated Primary Containment Leak Rate Test
IRM	- Intermediate Range Monitor
ISI	- Inservice Inspection
LER	- Licensee Event Report
LLRT	- Local Leak Rate Test
LPCI	- Low Pressure Coolant Injection Mode of RHRs
LPRM	- Local Power Range Monitor
MAPLHGR	- Maximum Average Planar Linear Heat Generation Rate
MCPR	- Minimum Critical Power Ratio
MFLCPR	- Maximum Fraction Limiting Critical Power Ratio
MPC	- Maximum Permissible Concentration
MSIV	- Main Steam Isolation Valve
NIOSH	- National Institute for Occupational Safety and Health
PCI	- Primary Containment Isolation
PCIOMR	- Preconditioning Interim Operating Management Recommendations
RBCCW	- Reactor Building Closed Cooling Water System
RBM	- Rod Block Monitor
RCIC	- Reactor Core Isolation Cooling System
RHRS	- Residual Heat Removal System
RPS	- Reactor Protection System
RWM	- Rod Worth Minimizer
SBGTS	- Standby Gas Treatment System
SBLC	- Standby Liquid Control
SDC	- Shutdown Cooling Mode of RHRS
SDV	- Scram Discharge Volume
SRM	- Source Range Monitor
TBCCW	- Turbine Building Closed Cooling Water System
TIP	- Traversing Incore Probe
TSC	- Technical Support Center