

Commonwealth Edison Company  
LaSalle Generating Station  
2601 North 21st Road  
Marseilles, IL 61341-9757  
Tel 815-357-6761



December 22, 1999

United States Nuclear Regulatory Commission  
Attention: NRC Region III Administrator  
801 Warrenville Road  
Lisle, IL 60532-4351

LaSalle County Station, Units 1 and 2  
Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

Subject: Four Year Certification Report of LaSalle County Station  
Simulator Facility

In accordance with 10 CFR 55.45(b)(5), this letter is submitted for the four year certification report of the Commonwealth Edison (ComEd) Company LaSalle County Station Simulator Facility.

The enclosed report identifies uncorrected performance test failures, describes performance tests conducted from 1996-1999, and provides a Performance Test Schedule for 2000-2003.

Should you have any questions concerning this letter, please contact Mr. Frank A. Spangenberg, III, Regulatory Assurance Manager, at (815) 357-6761, extension 2383.

Respectfully,

A handwritten signature in black ink that reads "Jeffrey A. Benjamin". The signature is fluid and cursive, with the first name being the most prominent.

Jeffrey A. Benjamin  
Site Vice President  
LaSalle County Station

Attachment

cc: NRC Senior Resident Inspector - LaSalle County Station

ADD1

Attachment  
LaSalle County Station Simulator  
1999 Certification Report

I. INTRODUCTION

This report is a supplement to the 1999 Simulator Annual Certification Report. This report is submitted in accordance with the requirements of 10 CFR 55.45 (b) (5), Certification of Simulator Facilities. It describes the simulator performance testing completed over the last four years, and the performance tests planned for the next four years.

The ComEd owned, General Electric BWR 5, 1170 MWE power plant simulator is used for training and testing of LaSalle Unit 1 and 2 operators. Because of the near exact duplication between the two units it is considered a plant specific simulator for both units, hereafter referred to as the LaSalle Simulator. However, since only one unit can be modeled, the simulator is modeled with LaSalle Unit 1 as the reference plant. The simulator was constructed by Electronics Associates, Inc. (EAI) in the early 1980's with the first training class conducted in the fall of 1983. In 1998/1999 the operating system was rehosted to PC based simulation by RNI Technologies.

II. REFERENCES

- A. Title 10, Code of Federal Regulations, Part 55, "Operator Licenses", Subpart E, Section 45.
- B. U.S. Nuclear Regulatory Guide 1.149 Nuclear Power Plant Simulation Facilities for use in Operator License Examinations.
- C. ANSI/ANS 3.5, 1993, "Nuclear Power Plant Simulators for use in Operator Training."

III. REPORTING REQUIREMENTS

The requirements of this report as outlined in 10CFR55.45 are:

- A. Paragraph 55.45 (b) (5) (ii): Identify any uncorrected performance test failures, and submit a schedule for correction of such performance test failures.

- B. Paragraph 55.45 (b) (5) (vi): A description of performance testing completed for the simulation facility.
- C. Paragraph 55.45 (b) (5) (vi): A description of performance tests, if different, to be conducted on the simulation facility during the subsequent four year period.
- D. Paragraph 55.45 (b) (5) (vi): A schedule for the conduct of approximately 25% of the performance tests per year for the subsequent four years.

IV. IMPLEMENTATION

- A. Identify any uncorrected performance test failures, and submit a schedule for correction of such performance test failures.

There were no performance test failures during the reporting period. However, work requests have been written on four malfunctions to enhance their usability and will not be used for training until complete. None of these were needed to satisfy ANSI/ANS-3.5 1993, section 3.1.2, Plant Malfunctions.

Malfunction No.	Description	Simulator WR #
98	FW Heater Tube Leak	46
297 & 298	Stuck & Uncoupled Rod Combination	102
199	Jet Pump Failure	592
226	Loss of B RPS Bus	226

- B. A description of Performance testing Completed for the Simulation Facility.

The LaSalle Simulator completed all annual and quadrennial performance tests for the years 1996 through 1999 as scheduled in the initial certification report. LaSalle procedures do not allow hot standby operation, so the normal operations tests that require hot standby conditions have been deleted from the new schedule. These normal operations tests will be placed on a quadrennial schedule.

- 1. Steady State Testing is done annually, and has had satisfactory results each year from 1996 through 1999. Some parameters that were close to failure criteria have been tuned to more closely match the plant.

2. Transient Testing is done annually, and has had satisfactory results each year from 1996 through 1999. Some of the plots will be slightly different in 1999 than previous years due to the rehost.
  3. Malfunction testing is done at a rate of 25% per year and has had satisfactory results each year from 1996 through 1999, with a few minor exceptions that were corrected by the work request procedure. Work Requests are open on four malfunctions as described in Section A of this document to enhance their usability, and will not be used for training until complete. None of these malfunctions are needed to satisfy the requirements of ANSI/ANS-3.5 1993 section 3.1.2, Plant Malfunctions.
- C. A description of Performance Test, if different, to be conducted on the simulation facility during the subsequent four year period.

The performance Test Schedule for 2000-2003 is similar to the initial certification report. Several malfunctions have been added or deleted since the initial report was completed. See the attached Tables 1 and 2 for a complete schedule.

The following malfunctions have been added since the 1995 certification report was issued:

1. Fire in SBT (MVG001) #338
2. Condensate Pump Trip (MCF118) #339
3. Circ Water Pump Trip (MCW010) #340
4. DG Cooling Water Pump Trip (MDG022) #341
5. EHC Fluid Pump Trip (MEH001) #342
6. MDRFP Trip (MCF113) #343
7. Heater Drain Pump Trip (MCF14) #344
8. HPCS Pump Trip (MCW013) #345
9. HPCS Water Leg Pump Trip (MES026) #346
10. LPCS Pump Trip (MES027) #347
11. Station Air Compressor Trip (MAI005) #349
12. RBCCW Pump Trip (MCW013) #350
13. RCIC Water Leg Pump Trip (MES028) #351
14. CRD Pump Trip (MRD280) #352
15. RHR Pump Trip (MRH017) #353
16. WS Jockey Pump Trip (MWS004) #354
17. VP Chiller (MVP001) #355
18. Synchroscope Reversed (MDG025) #356
19. RMCS Transponder Card Failure (MRD338) #357

20. RWLC M/A Auto Signal Failure (MRD123) #358

The following malfunctions have been deleted since the 1995 certification report. None of the deleted malfunctions are needed to satisfy the requirements of sections 3.1.2 of ANSI/ANS 3.5 1993.

1. MS Line Rad Monitor Fails Low (MRM00S) #30 deleted, no longer needed because MRM001 was made variable.
2. RHR Steam Line Break after PRV (MRH009,010) #66 deleted, steam condensing is no longer used and valves are OOS closed.
3. Turbine control valve fails closed (MMS074) #295 deleted, no longer needed because MMS070 was made variable.
4. Core instability (MNB117) #318 deleted. Instabilities now dynamically triggered when Region A is entered.

LASALLE COUNTY STATION SIMULATOR  
ANSI/ANS 3.5 CERTIFICATION REPORT  
TABLE 1

Description	Last Test	Next Test
Steady State Test #1	3/99	2000
Steady State Test #2	3/99	2000
Steady State Test #3	3/99	2000
Manual Scram (TRANS1)	3/99	2000
Trip of all Feedwater (TRANS2)	3/99	2000
Closure of all MSIV's (TRANS3)	3/99	2000
Trip of all Recirc Pumps (TRANS4)	3/99	2000
Trip of One Recirc Pump (TRANS5)	3/99	2000
Main Turbine Trip <25% (TRANS6)	3/99	2000
Ramp Power Down then Back Up (TRANS7)	3/99	2000
LOCA with Loss of Power (TRANS8)	3/99	2000
Main Steam Line rupture (TRANS9)	3/99	2000
MSIV CLOSURE AND Stuck SRV (TRANS10)	3/99	2000

LASALLE COUNTY STATION SIMULATOR  
ANSI/ANS 3.5 CERTIFICATION REPORT  
MALFUNCTION NUMBER TEST  
TABLE 2

<u>Malfunction No.</u>	<u>Malfunction</u>	<u>Description</u>	<u>ANS Item</u>	<u>Last Test</u>	<u>Next Test</u>
1	MNI001	SRM OUT OF CALIBRATION HIGH	21	May-96	2000
2	MNI005	SRM OUT OF CALIBRATION LOW	21	May-96	2000
3	MNI009	SRM INOP 'MODULE UNPLUGGED	21	May-96	2000
4	MNI013	SRM STUCK DETECTOR	21	May-96	2000
5	MNI017	SRM/IRM DRIVE PWR FAILURE	21	May-96	2000
6	MNI018	IRM OUT OF CALIBRATION HIGH	21	May-96	2000
7	MNI026	IRM OUT OF CALIBRATION LOW	21	May-96	2000
8	MNI034	IRM INOP 'MODULE UNPLUGGED	21	May-96	2000
9	MNI042	IRM STUCK DETECTOR	21	May-96	2000
10	MNI050	LPRM DRIFT UP	21	May-96	2000
11	MNI073	LPRM DRIFT DOWN	21	May-96	2000
12	MNI096	APRM OUT OF CAL HIGH	19,21	May-96	2000
13	MNI102	APRM OUT OF CAL LOW	21	May-96	2000
14	MNI008	STUCK TIP DETECTOR		May-96	2000
15	MNI109	TIP BALL VLV FAILS OPEN		May-96	2000
16	MNI110	TIP BALL VLV FAILS CLOSED		May-96	2000
17	MNI111	TIP IN SHIELD SWITCH FAILURE		May-96	2000
18	MNI112	TIP FAST SPEED SWITCH FAILURE		Jun-96	2000
19	MNI113	TIP SLOW SPEED SWITCH FAILURE		Jun-96	2000
20	MRD001	RBM OUT OF CAL HIGH		Jun-96	2000
21	MRD003	RBM OUT OF CAL LOW		Jun-96	2000
22	MRD005	RBM INOP - MODULE UNPLUGGED		Jun-96	2000
23	MRD007	RBM FAILS TO GO INTO SERVICE		Jun-96	2000
24	MRD009	RBM STAYS IN SERVICE		Jun-96	2000
25		- DELETED -			
26		- DELETED -			
27		- DELETED -			
28		- DELETED -			
29	MRM001	M.S. LINE RAD MOD FAILS		Jun-96	2000
30		- DELETED -			

31	MRM009	O.G. POST TREAT. MON FAILS HIGH		Jun-96	2000
32	MRM013	O.G. POST TREAT. MON FAILS LOW		Jun-96	2000
33	MRM015	O.G. POST TREAT MON INOP		Jun-96	2000
34	MNI013	FUEL POOL VENT FAILS UPSCALE		Jun-96	2000
35	MRM019	FUEL POOL VENT FAILS DOWN		Jun-96	2000
36	MRM023	R.B. VENT MON. FAILS UPSCALE		Jun-96	2000
37	MRM027	R.B. VENT MON. FAILS DOWN		Jun-96	2000
38	MEE001	LOSS 24/48 VDC PNL 1A CB #4	3	Jun-96	2000
39	MEE002	LOSS 24/48 VDC PNL 1A CB #6	3	Jun-96	2000
40	MEE003	LOSS 24/48 VDC PNL 1A CB #4	3	Jun-96	2000
41	MEE004	LOSS 24/48 VDC PNL 1A CB #6	3	Jun-96	2000
42	MEE005	LOSS OF 250 VDC PNL 121X	3	Jun-96	2000
43	MEE006	LOSS OF 250 VDC PNL 121Y	3	Jun-96	2000
44	MEE007	LOSS OF 125 VDC BUS 111X	3	Jun-96	2000
45	MEE008	LOSS OF 125 VDC BUS 111Y	3	Jun-96	2000
46	MEE009	LOSS OF 125 VDC BUS 112X	3	Jun-96	2000
47	MEE010	LOSS OF 125 VDC BUS 112Y	3	Jun-96	2000
48	MEE011	LOSS OF 125 VDC BUS 113	3	Jun-96	2000
49	MES001	HPCS PUMP SEIZURE	10, 23	Jun-96	2000
50	MES002	HPCS PIPE RUPTURE IN CONTAINMENT	10	Jun-96	2000
51	MES003	HPCS PUMP REDUCED CAPACITY	10, 23	Jun-96	2000
52	MES004	HPCS HIGH LEVEL ISOLATION FAILS		Jun-96	2000
53		- DELETED -			
54	MES006	ADS TMR K5 FAILS TO COUNT DWN		Jun-96	2000
55	MES008	SRV ADS SOLENOIDS FAIL		Jun-96	2000
56	MNB001	SRV PIPE SHEAR IN DW	1(d)	Jun-96	2000
57	MNB020	SRV PIPE BREAK IN POOL AIR SPACE	1(d)	Jun-96	2000
58	MNB021	SRV SET POINT DRIFT		Jun-96	2000
59	MNB040	SRV VLV SEAT ERODED	1(d)	Jun-96	2000
60	MES015	LPCS PUMP SEIZURE	23	Jun-96	2000
61	MES016	LPCS DISCH PIPE BREAK IN D.W.		Jun-96	2000
62	MES017	LPCS PUMP REDUCES CAPACITY	23	Jun-96	2000
63	MRH001	RHR HX TUBE LEAK		Jun-96	2000
64	MRH003	RHR PUMP REDUCED CAPACITY	7	Jun-96	2000

65	MRH006	RHR INJ LINE BREAK IN D.W.	23	Jun-96	2000
66		- DELETED -			
67	MRH011	S/D COOLING LINE BRK OUTSIDE DW	7	Jun-96	2000
68	MES018	RCIC TURBINE TRIP	10	Jun-96	2000
69	MES019	RCIC STM. LINE RUPT-UPSTRM F045	10	Jun-96	2000
70	MES020	RCIC TRIP COIL OPEN CIRCUIT		Jun-96	2000
71	MES021	RCIC PUMP REDUCED CAPACITY	23	Jun-96	2000
72	MCW001	RHR SW PUMP REDUCED CAPACITY	23	Jun-96	2000
73	MCW002	RHR SW PUMP TRIPS		Jun-96	2000
74	MNB059	RPV INST. LINE NB12B BRK-A RWLC		Jun-96	2000
75	MNB060	RPV INST. LINE NB15B BRK-WR, SDR		Jun-96	2000
76	MNB061	RPV INST. LINE NB10B BRK- LLS,ADS		Jun-96	2000
77	MNB062	RPV INST. LINE NB25B BRK		Jun-96	2000
78	MNB063	RPV INST. LINE NB23B BRK		Jun-96	2000
79	MNB064	'A' SCRAM AT 22.5"-N024A&C OOC HI		Jun-96	2000
80	MNB065	'A' SCRAM AT 2.5"-N024A&C OOC LO		Jun-96	2000
81	MNB066	'B' SCRAM AT 22.5"-N024B&D OOC HI		Jun-96	2000
82	MNB067	'B' SCRAM AT 2.5"-N024B&D OOC LO		Apr-97	2001
83	MNB068	HI LVL TRIP AT 55" FAILS-k624 HI		Apr-97	2001
84	MNB069	HI LVL TRIP RESET TO 45"-k624 LO		Apr-97	2001
85	MNB070	LVL 2 ISO & P.LOCA REC OOC HI		Apr-97	2001
86	MNB074	LVL 2 ISO & P.LOCA REC OOC LO		Apr-97	2001
87	MNB078	HPCS & DG START AT WRONG LEVEL		Apr-97	2001
88		- DELETED -			
89	MNB080	RCIC STARTS AT WRONG LEVEL		Apr-97	2001
90		- DELETED -			
91	MCA001	SGTS DISCH VLV 1VG03 FAILS OPEN		Apr-97	2001

92	MCA002	SGTS DISCH VLV 1VG02 FAILS CLOSED		Apr-97	2001
93	MCA003	SGTS DISCH VLV 1VG03 FAILS AS IS		Apr-97	2001
94	MCA004	SGTS PRI FAN 1VG01C SEIZURE		Apr-97	2001
95	MCA005	D W PRESS INST LINE NB27A BREAK		Apr-97	2001
96	MCA006	DW VAC BREAKER FAILS OPEN		Apr-97	2001
97	MCA010	D W BREAKER FAILS CLOSED	23	Apr-97	2001
98	MCF016	F W HEATER 16 TUBE RUPTURE	9	May-97	2001
99	MCF035	F W HTR 16 NORM DRN FAILS CLOSED		May-97	2001
100	MCF018	F W HEATER 15 TUBE RUPTURE	9	May-97	2001
101	MCF021	F W HEATER 14 TUBE RUPTURE	9	May-97	2001
102	MCF037	F W HTR 15 NORM DRN FAILS CLOSED		May-97	2001
103	MCF040	F W HEATER 14 NORM DRN FAILS CLOSED		May-97	2001
104	MCF024	F W HEATER 13 TUBE RUPTURE	9	May-97	2001
105	MCF043	F W HTR 13 EMER DRN FAILS OPEN		May-97	2001
106	MCF027	F W HEATER 12 TUBE RUPTURE	9	May-97	2001
107	MCF046	F W HRT 12 NORM DRN FAILS CLOSED		May-97	2001
108	MCF030	F W HEATER 11 TUBE RUPTURE	9	May-97	2001
109	MCF049	F W HTR 11 NORM DRN FAILS CLOSED		May-97	2001
110	MCF052	H D TANK NORM DRN FAILS CLOSED		May-97	2001
111	MCF053	HEATER DRAIN PUMP SEIZURE	9	May-97	2001
112	MMS001	MSR DRN TK NORM DRN FAIL CLOSED		May-97	2001
113	MMS003	1ST STG RHTR DR TK NRM DRN FC		May-97	2001
114	MMS005	2ND STG RHTR DR TK NRM DRN FC		May-97	2001
115	MMS007	EHC HYDRAULIC SYSTEM RUPTURE		May-97	2001

116	MMS008	ACCEL RATE CONTROL FAILS HI		May-97	2001
117	MMS009	ACCEL RATE CONTROL FAILS LOW		Aug-97	2001
118	MMS010	INTERCEPT VLV FAILS CLOSED		Aug-97	2001
119	MCF016	INTERMED STOP FAILS CLOSED		Aug-97	2001
120		- DELETED -			
121	MCF023	PWR/LOAD UNBAL-RPT & LOAD REJECTION		Aug-97	2001
122	MCF024	PWR/LOAD UNBAL CKT FAILS OFF		Aug-97	2001
123	MCF025	CHEST/SHELL WARMING FAILURE		Aug-97	2001
124	MCF026	MECH TRIP VLV FAILS TO TRIP		Aug-97	2001
125	MCF027	TURBINE SPEED CONTROL FAILS		Aug-97	2001
126	MMS028	EHC PR REG FAILS, MAX COMB FLOW	25	Aug-97	2001
127	MMS029	EHC PR REG FAILS-BACKUP WORKS	25	Aug-97	2001
128	MMS030	EHC MS PR XMTR HI-MAX FLOW	25	Aug-97	2001
129	MMS032	EHC MS PR XMTR LO-BACKUP OK	25	Aug-97	2001
130	MMS034	EHC PUMP FAILS TO AUTO START		Aug-97	2001
131	MMS036	MASTER TRIP SOL A/B OPEN COIL	15	Aug-97	2001
132	MCF057	COND PUMP SHEARED SHAFT	9	Aug-97	2001
133	MCF061	COND PUMP SEIZURE	9	Aug-97	2001
134	MCF065	BSTR PUMP SHEARED SHAFT	9	Aug-97	2001
135	MCF001	POLISHER RESIN DEPLETION		Aug-97	2001
136		- DELETED -			
137	MCN001	CONDENSER TUBE LEAK		Aug-97	2001
138	MCF015	POLISHER HIGH D/P		Aug-97	2001
139	MCF069	RFP FLOW XMTR FAILS HIGH	22	Aug-97	2001
140	MCF072	RFP FLOW XMTR FAILS LOW	22	Aug-97	2001
141	MNB082	M/S STA BMPLESS XFER FAILS		Aug-97	2001
142	MNB086	LVL SP REDUCED TO POST SCRAM LVL		Aug-97	2001
143	MNB087	POST SCRAM LVL SP NOT REDUCED		Aug-97	2001
144	MNB088	RWLC PDUS FAIL TO RAMP DEVIATION		Aug-97	2001

145	MNB089	MS FLO XMTR C34-N003 FAILS HI	22	Aug-97	2001
146	MNB093	MS FLO XMTR C34-N004 FAILS LO	22	Aug-97	2001
147	MNB097	NR LVL XMTR C34-N004 FAILS HI	22	Aug-97	2001
148	MNB100	NR LVL XMTR C34-N004 FAILS LO	22	Aug-97	2001
149	MCF075	RFP SHEARED SHAFT	9	Aug-97	2001
150	MCF033	FEEDWATER RUPTURE OUTSIDE DW	20	Aug-97	2001
151	MCF034	FEEDWATER RUPTURE INSIDE DW	20	Aug-97	2001
152	MCF078	TDRFP TRIP	9	Aug-97	2001
153	MCF080	TDRFP FAILS TO TRIP	9	Aug-97	2001
154	MCF082	TDRFP HP SV FAILS CLOSED	9	Aug-97	2001
155	MMS037	TDRFP HP STEAM LINE RUPTURE		Aug-97	2001
156	MMS039	TDRFP LP STEAM LINE RUPTURE		Aug-97	2001
157	MCF084	TDRFP SEIZURE	9	Aug-97	2001
158	MCF086	FEED REG. VALVE FAILS OPEN	9, 17	Aug-97	2001
159	MCF087	FEED REG. VALVE FAILS CLOSED	9, 17	Aug-97	2001
160	MCF088	FEED REG. VALVE FAILS AS IS	9, 17	Aug-97	2001
161	MCF089	MDRFP FAILS TO TRIP	9, 17	Aug-97	2001
162	MCF090	MDRFP LOCKED ROTOR	9	Aug-97	2001
163	MEE048	SYNC. CHECK RELAY FAILURE	3	Aug-97	2001
164	MEE049	GENERATOR TRIP	16	Sep-98	2002
165	MEE050	FAILURE OF GEN TO TRIP		Sep-98	2002
166	MMS078	STATOR COOLING RUNBACK FAILURE		Sep-98	2002
167	MEE051	AUTO VOLTAGE RET FAILS HIGH		Sep-98	2002
168	MEE052	AUTO VOLTAGE REG FAILS LOW		Sep-98	2002
169	MEE053	GRID TRANSIENT	3	Sep-98	2002
170	MEE054	GEN FIELD FLASH FAILURE	3	Sep-98	2002
171	MDG001	DG GOVERNOR FAILURE	3	Sep-98	2002
172	MDG004	DG LOSS OF FIELD	3	Sep-98	2002
173	MDG007	DG TRIPS & LOCKS OUT	3	Sep-98	2002
174	MDG010	DG SEQUENTIAL LOADING FAILURE	3	Sep-98	2002
175	MDG013	DG OUTPUT BREAKER TRIP	3	Sep-98	2002
176	MCN002	SJAE SUCTION LINE RUPTURE	5	Sep-98	2002

177	MCN003	SLOW BURN IN OFF-GAS PIPING		Sep-98	2002
178	MCN004	EXPLOSION IN OFF-GAS PIPING		Sep-98	2002
179	MCN005	CHARCOAL BED RUPTURE		Sep-98	2002
180	MCN006	HOLD UP PIPE RUPTURE		Sep-98	2002
181	MCN007	PREFILTER RUPTURE		Sep-98	2002
182	MCN008	SJAE PRESS REG FAILS HIGH		Sep-98	2002
183	MCN009	SJAE PRESS REG FAILS LOW	5	Sep-98	2002
184	MMS041	OG PREHEATER PRESS REG FAILS HIGH		Sep-98	2002
185	MMS042	OG PREHEATER PRESS REG FAILS LOW		Sep-98	2002
186	MDL001	SBLC PMP RV SETPOINT DRIFT		Oct-98	2002
187	MRW001	RWCU PUMP TRIP		Oct-98	2002
188	MRW004	RWCU FILTER HIGH DIFF PRES		Oct-98	2002
189	MRW007	FILT/DEMIN RESIN DEPLETION		Oct-98	2002
190	MRW010	RWCU SYSTEM LEAK AFTER F004		Oct-98	2002
191	MRW011	FILT/DEMIN FAILS-RESIN INTRU		Oct-98	2002
192		- DELETED -			
193		- DELETED -			
194	MCW009	RBCCW SYSTEM RUPTURE	8	Oct-98	2002
195	MRC001	RR PMP NO. 1 SEAL FAILS	1(c)	Oct-98	2002
196	MRC003	RR PMP NO. 2 SEAL FAILS	1(c)	Oct-98	2002
197	MRC005	RECIRC PUMP SEIZURE	4	Oct-98	2002
198	MRC007	RR PMP TRIPS AFTER STARTING		Oct-98	2002
199	MRC009	JET PUMP FAILURE		Oct-98	2002
200		- DELETED -			
201		- DELETED -			
202	MRC012	RR PMP FAILS TO RPT	17	Oct-98	2002
203	MRC014	RR PMP XFER FAILS (GOES TO 0)	17	Oct-98	2002
204		- DELETED -			
205		- DELETED -			
206	MRC018	RECIRC FCV ACTUATOR JAMMED		Nov-98	2002
207	MRC020	RUNBACK FAILURE<1 RFP & LO LVL	17	Nov-98	2002
208	MRC021	RECIRC FCV LOCKUP OCCURS	17	Nov-98	2002
209	MRC023	RECIRC FCV VELOCITY LIM FAILS		Nov-98	2002
210	MRC025	RECIRC FCV FLOW FB FAILS HI		Oct-98	2002
211	MRC027	RECIRC FCV FLOW FB FAILS LOW		Oct-98	2002

212	MRC029	RECIRC PUMP SHEARED SHAFT	4	Nov-98	2002
213	MRC031	RR PMP SPURIOUSLY DOWNSHIFTS	17	Nov-98	2002
214	MRC033	RECIRC LOOP SUCTION RUPTURE	1(b), 1(c)	Nov-98	2002
215	MRC035	RECIRC LOOP DISCH RUPTURE	1(b), 1(c)	Nov-98	2002
216	MRC037	RR PMP FAILS TO AUTO DOWNSHIFT		Nov-98	2002
217	MCN010	CIRC. PUMP SEIZURE		Nov-98	2002
218		- DELETED -			
219		- DELETED -			
220		- DELETED -			
221		- DELETED -			
222	MAI001	PLANT AIR SYSTEM RUPTURE	2	Nov-98	2002
223	MAI002	DW PNEUMATIC N2 B/U BANK FAILURE	2	Nov-98	2002
224	MAI003	RUNNING DW AIR COMPRESSOR TRIP	2	Nov-98	2002
225	MNB103	FUEL ELEMENT FAILURE	14	Nov-98	2002
226	MRP001	RPS MG SET TRIP	11, 19	Nov-98	2002
227	MEE012	LOSS OF TR142	3	Nov-98	2002
228	MEE013	LOSS OF TRI41	3	Nov-98	2002
229	MEE014	LOSS OF TR1E	3	Nov-98	2002
230	MEE015	LOSS OF BUS 151	3	Nov-98	2002
231	MEE016	LOSS OF BUS 152	3	Nov-98	2002
232	MEE017	LOSS OF BUS 141X	3	Nov-98	2002
233	MEE018	LOSS OF BUS 142X	3	Nov-98	2002
234	MEE019	LOSS OF BUS 141Y	3	Nov-98	2002
235	MEE020	LOSS OF BUS 142Y	3	Nov-98	2002
236	MEE021	LOSS OF BUS 143	3	Nov-98	2002
237	MEE022	LOSS OF SWGR 135X & 135Y (141Y)	3	Nov-98	2002
238	MEE023	UPS FAILURE TO XFER TO 235X-2	3	Nov-98	2002
239	MEE024	LOSS OF SWGR 136X & 136Y (142Y)	3	Nov-98	2002
240	MEE025	345 KV BUS 1 FAULT	3	Nov-98	2002
241	MEE026	LOSS OF MCC 135X-1	3	Nov-98	2002
242	MEE027	LOSS OF MCC 135X-2	3	Dec-98	2002
243	MEE028	LOSS OF MCC 135X-3	3	Dec-98	2002
244	MEE029	LOSS OF MCC 135Y-2	3	Dec-98	2002
245	MEE030	LOSS OF MCC 136X-1	3	Dec-98	2002
246	MRW031	LOSS OF MCC 136X-2	3	Dec-98	2002
247	MEE032	LOSS OF MCC 136Y-1	3	Dec-98	2002

248	MEE033	LOSS OF MCC 136Y-2	3	Dec-98	2002
249	MEE034	LOSS OF MCC 136Y-3	3	Dec-98	2002
250	MEE035	LOSS OF MCC 143-1	3	Dec-98	2002
251	MEE036	LOSS OF MCC 135Y-1	3	Jan-99	2003
252	MEE037	LOSS OF MCC 136X-3	3	Jan-99	2003
253	MEE038	LOSS OF SWGR 131A & 131B (151)	3	Jan-99	2003
254	MEE039	LOSS OF SWGR 133A & 133B (151)	3	Feb-99	2003
255	MEE040	LOSS OF SWGR 131X & 131Y (141X)	3	Feb-99	2003
256	MEE041	345 KV BUS 13 FAULT	3	Feb-99	2003
257	MEE042	LOSS OF SWGR 132A & 132B (152)	3	Feb-99	2003
258	MEE043	LOSS OF SWGR 134A & 134B (152)	3	Feb-99	2003
259	MEE044	LOSS OF SWGR 132Y & 132Y (142X)	3	Feb-99	2003
260	MEE045	LOSS OF SWGR 134X & 134Y (42Y)	3	Feb-99	2003
261	MEE046	BUS 141Y LOAD SHED RELAY FAILS	3	Feb-99	2003
262	MEE047	BUS 143Y LOAD SHED RELAY FAILS	3	Feb-99	2003
263		- DELETED -			
264		- DELETED -			
265		- DELETED -			
266	MRD178	RWM FAILS DETECT INSERT ERROR		Feb-99	2003
267	MRD179	RWM FAILS DETECT WTHDRW ERROR		Feb-99	2003
268	MNB104	MSL BREAK IN DW BEFORE RESTRICTOR	20	Feb-99	2003
269	MNB105	MSL BREAK IN DW AFTER RESTRICTOR	20	Feb-99	2003
270	MNB106	MSL BREAK IN STEAM TUNNEL	20	Feb-99	2003
271	MNB107	LOW-LOW SETDOWN LOGIC FAILS		Feb-99	2003
272	MNB108	LOW-LOW SETDOWN LOGIC INITIATES		Feb-99	2003
273	MMS043	BYPASS MSBPV FAILS OPEN	25	Feb-99	2003
274	MMS048	BYPASS MSBPV FAILS CLOSED	25	Mar-99	2003
275	MNB109	MSIV FAILS TO CLOSE		Feb-99	2003
276	MRP003	RPS SYS SCRAM BUTTONS FAILS	11	Feb-99	2003
-277	MRP005	FAILURE OF AUTO SCRAM CIRCUIT	24	Feb-99	2003

278	MRP006	LOSS OF RPS EPMA		Feb-99	2003
279		- DELETED -			
280	MMS053	1ST STG PR/SV INTLK ALLOWS SCRAM		Mar-99	2003
281	MMS054	1ST STG PR/SV INTLK SCRAM FAILS		Feb-99	2003
282	MRD180	ROD BLOCK FAILURE		Mar-99	2003
283	MMS055	MAIN TURBINE AUTO TRIP LOGIC FAILS		Mar-99	2003
284	MMS056	TURBINE SHAFT BOW	15	Mar-99	2003
285	MMS057	1ST STG RHTR TUBE LEAK		Mar-99	2003
286	MMS059	2ND STG RHTR TUBE LEAK		Mar-99	2003
287	MSS061	QUILL SHAFT FAILUREE		Mar-99	2003
288	MCN013	HOTWELL MAKEUP VLV FAILS OPEN	5	Mar-99	2003
289	MCN014	HOTWELL MAKEUP VLV FAILS CLOSED	5	Mar-99	2003
290	MCN015	HOTWELL REJECT VLV FAILS OPEN	5	Mar-99	2003
291	MCN016	HOTWELL REJECT VLV FAILS CLOSED	5	Mar-99	2003
292	MMS062	TURB STOP VLV FAILS OPEN		Mar-99	2003
293	MMS066	TURB STOP VLV FAILS CLOSED		Nov-99	2003
294	MMS070	TURB CONT VLV STUCK	25	Nov-99	2003
295		- DELETED -			
296	MRD027	CRD PUMP REDUCED CAPACITY	13	Mar-99	2003
297	MRD029	02-27 STUCK ROD	12	Mar-99	2003
298	MRD049	02-27 UNCOUPLED ROD	12	Mar-99	2003
299	MRD069	CONTINUOUS ROD WITHDRAWAL	12	Mar-99	2003
300	MRD070	02-23 ROD DRIFT IN	12	Mar-99	2003
301	MRD090	02-19 COLLET FINGER FAILURE	12	Mar-99	2003
302		- DELETED -			
303	MRD130	ROD WITHDRAWS BUT RE-INSERTS		Mar-99	2003
304	MRD131	REED SWITCH STUCK CLOSED		Mar-99	2003
305	MRD151	LOSS OF ROD POSITION INDICATION		Mar-99	2003
306	MRD181	SDV DRAIN & VENT VLV FAIL OPEN		Mar-99	2003
307	MCA014	SUPP. POOL WATER LEAK		Mar-99	2003
308	MDG016	DG ENGINE START FAILURE	3	Mar-99	2003
309	MDG019	DG SYNC. CHECK RELAY FAILURE		Mar-99	2003

310	MCF091	FW PUMP SUCT TRIP OUT OF CAL	9	Mar-99	2003
311	MCF092	FW PMP/FRV FUNCT GEN FAILURE DEC		Mar-99	2003
312	MCF098	FW PMP/FRV FUNCT GEN FAILURE INC		Mar-99	2003
313	MCF095	FW MIN FLOW VLV RANDOM CYCC		Nov-99	2003
314	MRD182	RMCS CONTROL FAILURE	13	Mar-99	2003
315		- DELETED -			
316	MRP016	SCRAM AIR HEADER FAILURE	2	Mar-99	2003
317	MRP017	FAILURE OF RPS CHANNEL TO SCRAM	24	Mar-99	2003
318		- DELETED -			
319	MRW020	RWCU NRHX TUBE LEAK		Mar-99	2003
320	MWS001	SW PLUGGED STRAINER	6	Mar-99	2003
321	MWS002	SERVICE WATER PMP AUTO TRIP	6	Mar-99	2003
322	MCG001	STATOR COOLING WTR PMP TRIP	8	Mar-99	2003
323	MEE055	345 KV BUS 10 FAULT		Mar-99	2003
324	MEE056	MISC AUTO CONTROL POWER FAILURE		Mar-99	2003
325	MRC029	RR FCV FAILURE	17	Mar-99	2003
326	MRC041	RR RUPTURE INSIDE ISOLATIONS	1(b), 1(c)	Nov-99	2003
327		- DELETED -			
328	MNB205	MSL RUPTURE INSIDE MSIV's	20	Nov-99	2003
329	MRD277	DEGRADED SDV	24	Mar-99	2003
330	MRD279	CRD FCV FAILURE		Mar-99	2003
331	MCF111	FW TESTABLE CHECK FAILS		Nov-99	2003
332	MNB122	FW FLOW FAILS LOW		Mar-99	2003
333	MNB124	FW FLOW FAILS HI		Mar-99	2003
334	MRH014	PLUGGED SUCTION STRAINERS IN SP		Mar-99	2003
335	MRP019	SCRAM CONTACTOR FAILS CLOSED	24	Mar-99	2003
336	MRP027	SCRAM CONTACTOR FAILS OPEN	11, 19	Mar-99	2003
337	MRD337	SCRAM DISCHARGE VOLUME RUPTURE		Mar-99	2003
338	MVG001	FIRE IN SBGT		Nov-99	2003
339	MCF118	CONDENSATE PUMP TRIP	9	Mar-99	2003
340	MCW010	CIRC WATER PUMP TRIP	5	Mar-99	2003
341	MDG022	DG COOLING WATER PUMP TRIP		Mar-99	2003
342	MEH001	EHC FLUID PUMP TRIP		Mar-99	2003
343	MCF113	MDRFP TRIP	9	Nov-99	2003

344	MCF114	HEATER DRAIN PUMP TRIP	9	Mar-99	2003
345	MES025	HPCS PUMP TRIP		Mar-99	2003
346	MES026	HPCS WATER LEG PUMP TRIP		Mar-99	2003
347	MES027	LPCS PUMP TRIP		Mar-99	2003
348		- DELETED -			
349	MAI005	STATION AIR COMPRESSOR TRIP		Mar-99	2003
350	MCW013	RBCCW PUMP TRIP		Mar-99	2003
351	MES028	RCIC WATER LEG PUMP TRIP		Mar-99	2003
352	MRD280	CRD PUMP TRIP		Mar-99	2003
353	MRH017	RHR PUMP TRIP		Mar-99	2003
354	MWS004	WS JOCKEY PUMP TRIP		Mar-99	2003
355	MVP001	VP CHILLER TRIP		Mar-99	2003
356	MDG025	Synchroscope Reversed		Nov-99	2003
357	MRD338	RMCS Transponder Card Failure		Mar-99	2003
358	MRD123	RWLC M/A Auto Signal Failure		Mar-99	2003