

Time	Event	Source
0740:55.747	Fault Inception	SRP SOE
0741	U2 DGA Start/Load, trip @ 0756	U2 event summary
0758	WRF Operators at GTGs, starting GTG#1	GTG logs
0759	GTG#2 started	GTG logs
0803	GTG#1 energizing AENANS07	GTG logs
0810	Both GTGs started, GTG#1 supplying NAN-S07 (NHN-U5607 on S07 @ 0915)	U1 & GTG logs
0813	SWYD power restored – East bus pwr from HAA1	U1 logs
0819	SWYD power restored – West bus pwr from WW1	U1 logs
0820	SWYD power restored – West bus pwr from WW2	U1 logs
~0830	SWYD determined stable (perturbations noted in 1st hour)	U1 logs
0838	NANX01 energized	U1 logs
0840	NANX02 energized	U1 logs
0844	NANX03 energized	U1 logs
0900	U2 NANS05/S03 energized	U2 logs
0900	U1 NANS06 energized	U1 logs
~0900	U1 <i>assume</i> attempt to close NANS06K	(MAH)
0907	U1 NANS05/S03 energized	U1 logs
0918	U3 NANS06 energized	ERFDADS
~0920	U3 <i>assume</i> attempt to close NANS05D	(MAH)
- 0927	U2 PBAS03 energized	U2 logs
0953	U2 NANS06 energized	ERFDADS
0957	U3 PBBS04 paralleled DGB w/ offsite	U3 logs
1000	U1 Elect Mntc responding to S06K	R. Bruce interview
1000-1015	U3 Call from CR to Elect Mntc to close SO5D	R. Bruce interview
1045	U3 Elect Mntc at S05D	R. Bruce interview
----	Elect Mntc team restored S06K then S05D	R. Bruce interview
1122	U1 NANS04 energized	U1 logs & ERFDADS
1135	U3 NANS05 energized (S05D)	ERFDADS
1158	U3 PBAS03 paralleled DGA w/ offsite	U3 logs
1159	U1 PBBS04 paralleled DGB w/ offsite	U1 logs
1237	U2 PBBS04 paralleled DGB w/ offsite	ERFDADS
1240	U1 PBAS03 paralleled DGA w/ offsite	U1 logs
1310	Shutdown GTG#1	GTG logs
1313	Shutdown GTG#2	GTG logs

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 2
FOIA 2004-0307

m/1

Sequence of Events
June 14, 2004

~ 830
Grid stable
enough to
support loads.

Note: Mountain Standard Time, Times Rounded Down to Nearest Minute

Unit 1

0741 Startup Transformer# 2 Breaker 945 Open
Excessive Main Generator and Field Currents Noted
Engineered Safeguards Features Bus Undervoltage
Loss of Offsite Power Load Shed Train A and B
Emergency Diesel Generator Train A and B Start Signal
fast Clsg of IV commanded (then rescinded in same second)
No ETSV pressure trip
Low Departure from Nucleate Boiling Ratio Reactor Trip

16TG:
22 minutes
GTG's:
29 minutes

Master Turbine Trip
Main Turbine Mechanical Over Speed Trip
Emergency Diesel Generator "A" Operating (10 Second Start Time)
Emergency Diesel Generator "B" Operating (13 Second Start Time*)

0751 Manual Main Steam Isolation System Actuation
0758 Declared Notice of Unusual Event (loss of essential power for greater than 15 minutes)

0810 Both Gas Turbine Generator Sets Started, #1 GTG is supplying power to NAN S07

0813 closed 525 k 552-942. The East bus is powered from Hass #1

0838 restored power to Startup Xfrmr X01

0844 restored power to Startup Xfrmr X03

0855 fire reported in 120 ft Aux building. NO FIRE exists, AOP reported fumes. Suspected that the fumes were caused by the elevated temperature of the letdown HX

0900 HI Temp AO entered for Letdown HX Outlet temp offscale high

(2715667) -this controller feeds a common alarm annunciator

-apparently the alarm came in without actions being taken until AO did walk through

- what is the annunciator sensing history

how long did this condition exist before actions taken???

1002 reset Generator Protective Trips (volts/hertz; Backup under-frequency) ring bus restored

1159 paralleled DG B with bus and cooled down engine restoring the in house buses

1207 Emergency Coordinator terminated NUE for all three units,

1248 paralleled DG A with bus and cooled down

2209 noted grid voltage greater than 535.5 volts Shift Manager Coordinated with ECC

6/15

0005 restored CVCS letdown per Std Appendix 12 started Chg Pump 'A'

0155 established RCP seal injection and controlled bleed off

0241 started 2A RCP, had to secure due to low running amps other two units had RCP's running (what were the amps at the time) exiting of EOP delayed due to switchyard conditions

0305 exited Loss of Letdown AOP after restoration of letdown per Standard App. 12 of EOP's

0345 switchyard E-W voltage at approx. 530.7 KV

0818 started RCP's 2A and 1A

0920 started RCP's 2B and 1B

0803
6TG's
5 supported

4 hrs 19 min

5 hrs 7 min

East Bus powered offsite
32 min

0930 exited EOP 40EP- 9E007 Loss of Offsite Power/Loss of Forced Circulation

Unit 2

0740 4.16KV Switchgear 3 Bus Trouble Alarm
Generator Negative Sequence Alarm
4.16KV Switchgear 4 Bus Trouble Alarm
0741 Main Transformer B Status Trouble Alarm
Main Transformer A Status Trouble Alarm
ESF Bus Undervoltage Channel A-2
ESF Bus Undervoltage Channel B-2
LOP/Load Shed B
ESF Bus Undervoltage Channel B-3
DG Start Signal B
LOP/Load Shed A
ESF Bus Undervoltage Channel A-4
DG Start Signal A
LO DNBR Channels A, B, C, & D Trip
RPS Channels A, B, C, & D Trip
Main Generator 525KV Breaker 935 Open
Mechanical Overspeed Trip of Main Turbine
0751 Manually initiated MSIS

0755 Declared an Alert for Loss of All Offsite Power to Essential Busses for Greater than 15 minutes

0901 Energized 13.8KV Busses 2E-NAN-S03 and 2E-NAN-S05

0927 Energized 4.16KV Bus 2E-PBA-S03

0951 Exited Alert

1001 Energized 13.8KV Bus 2E-NAN-S01

1024 Energized 13.8KV Bus 2E-NAN-S02

1132 Started Charging Pump A

1618 Engineering and Maintenance review concluded that Charging Pump E was available for service after fill and vent

1714 Started Charging Pump E

1716 Started RCP 1A

1722 Started RCP 2A

1806 Stopped PCPs 1A and 2A on low motor amperage. ECC contacted to adjust grid voltage as-low-as-possible

2040 Started RCPs 1A and 2A

2051 Stopped RCPs 1A and 2A on low running amperage

06/15

0400 Started RCPs 1A and 2A

0610 Exited Emergency Operating Procedures

Unit 3

1 hr 46 min
← Energized at same time.

0741 Loss of Off-Site Power

0741 Loss of Off-Site Power

0758 Unit 1, 3 NOUE

0758 Unit 1, 3 NOUE

0800

0817 TSC D/G Tripped*

OSC Staffed

0819 ERDS activated

0840 NRC ENS notification

0900 Unit 1 Intermediate Bus (S06) re-energized from S/U Transfo

0952 EOF staffed

TSC staff moved from STSC to TSC

1005 Unit 2 NOUE transmitted from EOF

- EC turnover complete

Portions EX 2

1207 Event Terminated
1215 NAN for event termination transmitted by EOF
1216 TSC secured

Ex 2

Portions withheld - Ex 2