

WOLF CREEK GENERATING STATION

MONTHLY OPERATING REPORT

MONTH: February YEAR: 1986

Docket No.: STN 50-482

Facility Operating License No.: NPF-42

Report No. 12

Submitted by:

Kansas Gas and Electric Company

8603200403 860228
PDR ADOCK 05000482
R PDR

The following report highlights the operating experience of Wolf Creek Generating Station for the month of February, 1986. This report is being provided pursuant to Technical Specification 6.9.1.8.

I. SUMMARY OF OPERATING EXPERIENCE

The plant operated in Mode 1, Power Operation, most of the month. A forced shutdown was commenced due to a loss of rod control on Shutdown Banks C, D and E. It was terminated at 54 percent power when a faulty card was replaced. A bad card in the Main Turbine speed control caused a turbine trip and reactor trip on February 22, ending our longest continuous run at 134 days. The plant was started up on February 24 and, after a hold at 30 percent to allow Steam Generator chemistry to come into specification, operated at near 100 percent for the remainder of the month.

II. MAJOR SAFETY RELATED MAINTENANCE ACTIVITIES

Motor-driven Auxiliary Feedwater Pump "B" was repacked and the Limitorque operators of two of its motor driven valves, AL HV-005 and AL HV-034, were lubricated and adjusted. The bearings were replaced on Fuel Pool Cleanup Pumps "A" and "B". Main Steam Pilot Operated Relief Valve, AB PV-004, was reworked. The governor controller for the Turbine-driven Auxiliary Feedwater Pump was replaced, as was the Main Turbine impulse pressure transmitter, a power supply in the Emergency Safety Features Actuation System and a power isolation board in Radiation Monitor GK-RE-05.

III. CHANGES, TESTS, AND EXPERIMENTS

The following is a brief description of safety evaluations performed pursuant to 10 CFR 50.59 on changes, tests, and experiments during the month of February.

1. Safety Evaluation 86-SE-08 - Originated to allow the removal of the valve internals from the recirculation manual stop valve, HF V326, for the Secondary Liquid Waste System High TDS Collector Tanks. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
2. Safety Evaluation 86-SE-12 - Originated to provide a connection point for a Temporary Demineralized Water Unit. The connections were made to non-safety related piping. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
3. Safety Evaluation 86-SE-13 - Originated to allow the installation of sample lines of the rotometer for Main Condenser Vacuum Pumps CCG01A, B, and C. The rotometer piping is not safety related. No unreviewed safety or environmental questions are generated as a result of this temporary modification.

4. Safety Evaluation 86-SE-14 - Originated to allow the installation of sample lines on the discharge of Condensate Pumps PAD01A, B and C. The affected piping is not safety related. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
5. Safety Evaluation 86-SE-15 - Originated to allow the installation of a speaker on the Gaitronics at the Reactor Operator's Desk in the Control Room. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
6. Safety Evaluation 86-SE-16 - Originated to allow the installation of "B" reactor trip bypass breaker into the "A" reactor trip breaker cubicle during hot full flow control rod system testing. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
7. Safety Evaluation 86-SE-17 - Originated to disconnect the input of free-field strong motion accelerometer SG-AR-1 from Seismic Instrumentation Panel SG058 while reworking the accelerometer. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
8. Safety Evaluation 86-SE-18 - Originated to allow connection of an ungrounded 15 volt direct current power supply to the output of power supply CPS-117 in Seismic Instrumentation Panel SG058, due to the failure of CPS-117. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
9. Safety Evaluation 86-SE-19 - Originated to provide temporary power from the PG bus to a compressor and to connect the output of that temporary compressor to the plant service air system at valve KA V104. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
10. Safety Evaluation 86-SE-20 - Originated to allow removal of the card for alarm window 90B (Diesel Generator Fuel Tank B Level Low) at the annunciator logic cabinet to silence a nuisance alarm for that window. This alarm is not safety related. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
11. Safety Evaluation 86-SE-21 - Originated to allow the installation of a temporary tail piece on high pressure heater 7A relief valve, AE V979, to divert its flow to a separate point in the same drain, while workmen were working on High Pressure Heater 7B relief valve. Since both relief valves normally discharge to a common header, this temporary modification was needed for personnel safety. No unreviewed safety or environmental questions are generated as a result of this temporary modification.

12. Safety Evaluation 86-SE-22 - Originated to allow the installation of temporary piping from AE V980 to AE V989 to circumvent blockage in Seal Water Transmitter instrument root valve AE V989. The jumper was needed to ensure proper seal water flow to Steam Generator Feed Pump B. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
13. Safety Evaluation 86-SE-23 - Originated to allow the improvement of communications for turbine generator testing by replacing four handsets with headsets on the Gaitronics communications system. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
14. Safety Evaluation 86-SE-24 - Originated to allow reterminating the cable to the Standby Diesel Generator KKJ01A jacket water heater by cutting off the damaged section, stripping and using heat shrinking tubing, until new cable can be installed under Plant Modification Request 1329. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
15. Safety Evaluation 86-SE-25 - Originated to allow the installation of the shaft seal on Emergency Exhaust Fan assembly CGG02B using four temporary bolts. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
16. Safety Evaluation 86-SE-26 - Originated to allow the charging of a single cell in non-safety related battery PK14. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
17. Safety Evaluation 86-SE-27 - Originated to allow the removal of alarm card 15 for alarm window 93D, Instrument Air Humidity High, in RKC45E3, cubicle 5 until the air dryer unit is repaired. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
18. Safety Evaluation 86-SE-28 - Originated to allow the installation of pressure gauges on the Demineralized Water Degasification Pumps PAN02A and PAN02B, to obtain suction pressure. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
19. Safety Evaluation 86-SE-29 - Originated to allow installation of a hose to demineralized water valve AN V079 for use in cleaning the Main Steam Isolation Valve Room. No unreviewed safety or environmental questions are generated as a result of this temporary modification.

20. Safety Evaluation 86-SE-30 - Originated to allow lifting leads 97 and 98 on TB4 in cabinet RK045C4 to clear a ground on cable 6 LER07HA which feeds annunciator RK045, North Condensate Pit Sump Level High Alarm. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
21. Safety Evaluation 86-SE-31 - Originated to reverse the wires on terminals TB4-8-01 and TB4-8-04 in panel RP05BC for the Diesel Generator "A" day tank level control circuit to make the wiring agree with the schematic diagram. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
22. Safety Evaluation 86-SE-32 - Originated to allow lifting the horizontal proximity lead on Reactor Coolant Pump "A" vibration monitor, to prevent nuisance alarms in the Control Room. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
23. Safety Evaluation 86-SE-33 - Originated to allow the installation of pressure gauges and isolation valves in the service gas system upstream of the flex connections to the accumulators for the Main Steam Isolation Valves and the Feedwater Isolation Valves. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
24. Safety Evaluation 86-SE-34 - Originated to allow the removal of power from dampers GF-D062 and GF-D063 while the associated ductwork was being cleaned. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
25. Safety Evaluation 86-SE-35 - Originated to allow the installation of pressure gauges to the Main Turbine steam seal lines. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
26. Safety Evaluation 86-SE-36 - Originated to allow lifting wire J405-7 in cable 5ACQ08A to defeat the low T-ave signal to the Stop Turbine Loading Circuit, until the NRC Group 04 circuit card can be replaced with a NRC Group 10 circuit card pursuant to Plant Modification Request 01198. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
27. Safety Evaluation 86-SE-37 - Originated to defeat the invalid alarms from Radiation Monitors SJ RE02 and GE RE92 which provide input to the Blowdown and Sample Isolation Valves. Redundant monitors BM RE25 and BM RE52 provide the same isolation capability. No unreviewed safety or environmental questions are generated as a result of this temporary modification.

28. Safety Evaluation 86-SE-38 - Originated to cap the four drains to the Floor and Equipment Drainage System from the Main Steam Isolation Valve Room while Fyrquel hydraulic fluid was being cleaned up in the room. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
29. Safety Evaluation 86-SE-39 - Originated to allow machining off 3/32 inch from the bottom of the set screw that prevents movement of the nozzle ring on relief valve BG V8118 for the Positive Displacement Charging Pump. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
30. Safety Evaluation 86-SE-40 - Originated to allow the installation of test gauges on the suction and discharge of Steam Generator Feed Pump "B". No unreviewed safety or environmental questions are generated as a result of this temporary modification.
31. Safety Evaluation 86-SE-41 - Originated to allow replacement of a broken weatherhead (junction box) for low temperature switch TSL-063 for Diesel Generator RKJ001A engine coolant system. The replacement weatherhead has the same form fit and function, but is from a different manufacturer. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
32. Safety Evaluation 86-SE-42 - Originated to allow the installation of filter/dryer elements on the suction and discharge refrigerant lines for the Turbine Building Process Sampling Lab Air Handling Unit SGE15. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
33. Safety Evaluation 86-SE-43 - Originated to allow a restraint of stainless steel wire to be employed to hold a flared swagelok fitting connection together where the stem leakoff tubing for valve BG HV8146 connects to the two inch leakoff header. The tubing is D-augmented, non-seismic I. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
34. Safety Evaluation 86-SE-44 - Originated to demonstrate the operability of the Reactor Coolant System pressure isolation valves BB PV8702A, BB PV8702B, EJ HV8701A, and EJ HV8701B by verifying that the measured leakage meets the acceptance criteria of Technical Specifications 4.4.6.2.2. No unreviewed safety or environmental questions are generated as a result of this special test procedure.

35. Safety Evaluation 86-SE-45 - Originated to allow connection of a temporary hose from Chemical and Volume Control System drain valve BG V454 to drain valve BG V580 to provide a flow path for Reactor Coolant Pump seal water return while conducting Local Leak Rate Testing of penetration P-24. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
36. Safety Evaluation 86-SE-46 - Originated to divert Reactor Coolant Pump seal water return through the temporary hose installed by Safety Evaluation 86-SE-45, while conducting Local Leak Rate Testing of penetration P-24. No unreviewed safety or environmental questions are generated as a result of this special test procedure.
37. Safety Evaluation 86-SE-04 - Originated to allow defeating the runback of the Main Turbine on loss of a Circulating Water Pump. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
38. Plant Modification Request 01502 - Originated to provide administrative controls for performance of the first Containment Post-Tensioning System inspection, as required by Technical Specification 4.6.1.6.1. This PMR includes safety evaluations of the work including hoisting and transporting the equipment involved and failure of the hoisting equipment. No unreviewed safety or environmental questions are generated as a result of this plant modification.
39. Plant Modification Request 01562 - Originated to provide a permanent sampling connection for the Refueling Water Storage Tank by connecting tubing and a valve to valve BN V018. No unreviewed safety or environmental questions are generated as a result of this plant modification.
40. Technical Specification 4.6.1.2.d. Change Request - Originated to request a one-time deferment to the specified 24 month maximum surveillance interval for Local Leak Rate Testing of certain Containment Penetrations that require the plant in Cold Shutdown to perform. No unreviewed safety or environmental questions are generated as a result of this Technical Specification change request.
41. Technical Specification Change Request - Originated to request a one-time deferment of the 18 month surveillance interval for certain surveillances that require the plant in Cold Shutdown for their performance. No unreviewed safety or environmental questions are generated as a result of this Technical Specification change request.

42. Safety Evaluation 86-SE-47 - Originated to allow installation of a pressure gauge on the suction of "B" Centrifugal Charging Pump to facilitate performance of a surveillance test. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
43. Plant Modification Request 01358 - Originated to eliminate the Boron Injection Recirculation System (BIRS) annunciators. Since Boron Injection Tank concentration has been reduced to 2000 ppm, the BIRS is no longer required to be in service. No unreviewed safety or environmental questions are generated as a result of this plant modification.
44. Safety Evaluation 86-SE-48 - Originated to allow the use of the five ton hoist of the cask handling crane to transport a dummy fuel assembly from the new fuel storage area to the upender, to facilitate functional testing of the upender. The fuel pool is flooded, the transfer canal is not, and the transfer canal gate is in place, preventing the use of the spent fuel pool bridge crane. There is no fuel in the spent fuel pool. No unreviewed safety or environmental questions are generated as a result of this temporary modification.
45. Safety Evaluation 86-SE-49 - Originated to allow the use of a temporary cover and fasteners on the lower right hand side of class IE, IEEE 323 qualified 480 Volt Motor Control Center NG03T, because the original cover was lost. No unreviewed safety or environmental questions are generated as a result of this temporary modification.

OPERATING DATA REPORT

DOCKET NO. STN 50-482
 WOLF CREEK GENERATING STATION
 KANSAS GAS AND ELECTRIC COMPANY
 DATE 03-01-86
 COMPLETED BY M. Williams
 TELEPHONE 316-364-8831

OPERATING STATUS

1. Reporting Period: February, 1986 Gross Hours in Reporting Period: 672.0
 2. Currently Authorized Power Level (MWt): 3411 Max. Depend. Capacity (MWe-Net): 1128
 Design Electrical Rating (MWe-Net): 1170
 3. Power Level to Which Restricted (If Any) (Mwe-Net): N/A
 4. Reasons for restriction (If Any): N/A
- | | This Month | Yr to Date | Cumulative |
|---|------------------|------------------|-------------------|
| 5. Number of Hours Reactor was Critical | <u>618.8</u> | <u>1362.8</u> | <u>4153.1</u> |
| 6. Reactor Reserve Shutdown Hours | <u>41.4</u> | <u>41.4</u> | <u>120.2</u> |
| 7. Hours Generator on Line | <u>614.7</u> | <u>1358.7</u> | <u>4130.3</u> |
| 8. Unit Reserve Shutdown Hours | <u>0.0</u> | <u>0.0</u> | <u>0.0</u> |
| 9. Gross Thermal Energy Generated (MWH) | <u>2,005,668</u> | <u>4,486,147</u> | <u>13,361,080</u> |
| 10. Gross Electrical Energy Generated (MWH) | <u>711,183</u> | <u>1,584,477</u> | <u>4,655,567</u> |
| 11. Net Electrical Energy Generated (MWH) | <u>681,191</u> | <u>1,521,491</u> | <u>4,463,591</u> |
| 12. Reactor Service Factor | <u>92.1</u> | <u>96.2</u> | <u>96.7</u> |
| 13. Reactor Availability Factor | <u>98.2</u> | <u>99.2</u> | <u>99.5</u> |
| 14. Unit Service Factor | <u>91.5</u> | <u>96.0</u> | <u>96.1</u> |
| 15. Unit Availability Factor | <u>91.5</u> | <u>96.0</u> | <u>96.1</u> |
| 16. Unit Capacity Factor (Using MDC) | <u>89.9</u> | <u>95.3</u> | <u>92.1</u> |
| 17. Unit Capacity Factor (Using Design MWe) | <u>86.6</u> | <u>91.8</u> | <u>88.8</u> |
| 18. Unit Forced Outage Rate | <u>8.5</u> | <u>4.0</u> | <u>3.8</u> |
19. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of each): None
 20. If Shut Down at End of Report Period, Estimated Date of Startup: N/A
 21. Units in test Status (Prior to Commercial Operation):

Forecast	Achieved
Initial Criticality	<u>5-22-85</u>
Initial Electricity	<u>6-13-85</u>
Commercial Operation	<u>9-09-85</u>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. STN 50-482
 WOLF CREEK GENERATING STATION
 KANSAS GAS AND ELECTRIC COMPANY
 DATE 03-01-86
 COMPLETED BY M. Williams
 TELEPHONE 316-364-8831

MONTH February, 1986

DAY AVERAGE DAILY POWER LEVEL (MWe-Net)		DAY AVERAGE DAILY POWER LEVEL (MWe-Net)	
1	<u>1149</u>	17	<u>1149</u>
2	<u>1035</u>	18	<u>1150</u>
3	<u>1027</u>	19	<u>1152</u>
4	<u>1145</u>	20	<u>1154</u>
5	<u>1150</u>	21	<u>1149</u>
6	<u>1151</u>	22	<u>189</u>
7	<u>1152</u>	23	<u>0</u>
8	<u>1153</u>	24	<u>123</u>
9	<u>1152</u>	25	<u>746</u>
10	<u>1143</u>	26	<u>1143</u>
11	<u>1152</u>	27	<u>1150</u>
12	<u>1144</u>	28	<u>1154</u>
13	<u>1134</u>	29	<u>N/A</u>
14	<u>1140</u>	30	<u>N/A</u>
15	<u>1148</u>	31	<u>N/A</u>
16	<u>1148</u>		

UNIT SHUTDOWN AND POWER REDUCTIONS

DOCKET NO. STN 50-482
 WOLF CREEK GENERATING STATION
 KANSAS GAS AND ELECTRIC COMPANY
 DATE 03-01-86
 COMPLETED BY M. Williams
 TELEPHONE 316-364-8831

REPORT MONTH February, 1986

No	Date	TYPE F: FORCED S: SCHEDULED	DURATION (HOURS)	REASON (1)	METHODS SHUTTING DOWN THE REACTOR OR REDUCING POWER(2)	CORRECTIVE ACTIONS/COMMENTS
1	860222	F	57.3	A	3	Unit trip caused by a bad card in speed control circuit. (See LER 86-007-00.)

SUMMARY: On February 22, a bad card in the Main Turbine speed control circuit caused a unit trip and reactor scram.

- (1) REASON: **A:** EQUIPMENT FAILURE (EXPLAIN) **E:** OPERATOR TRAINING AND LICENSE EXAMINATION (2) METHOD: 1. MANUAL
B: MAINTENANCE OR TEST **F:** ADMINISTRATIVE 2. MANUAL SCRAM
C: REFUELING **G:** OPERATIONAL ERROR (EXPLAIN) 3. AUTOMATIC SCRAM
D: REGULATORY RESTRICTION **H:** OTHER (EXPLAIN) 4. OTHER (EXPLAIN)

KANSAS GAS AND ELECTRIC COMPANY

WOLF CREEK GENERATING STATION

UNIT NO. 1

MONTH February, 1986

SUMMARY OF OPERATING EXPERIENCE

Listed below in chronological sequence is a summary of operating experiences for this month which required load reduction or resulted in significant non-load related incidents.

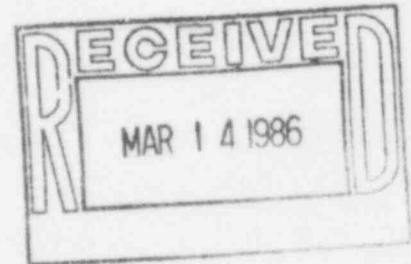
<u>DATE</u>	<u>TIME</u>	<u>EVENT</u>
February 1, 1986	0000	Unit in Mode 1, Power Operation.
February 3, 1986	1405	Commenced power decrease to go to hot shutdown because of no automatic control of Shutdown Banks C, D, and E.
	1534	Discontinued power decrease at 54 percent power.
	1700	Commenced power increase to 100 percent.
February 22, 1986	0400	Turbine trip and reactor trip. (LER 86-007-00)
February 24, 1986	0910	Reactor critical.
	1316	Synchronized with grid, increased power to 30 percent. Held power at 30 percent until steam generator chemistry came in specification.
February 25, 1986	0737	Commenced power increase to 100 percent.



KANSAS GAS AND ELECTRIC COMPANY

GLENN L KOESTER
VICE PRESIDENT - NUCLEAR

March 11, 1986



Director, Office of Resource Management
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. E.H. Johnson, Director
Division of Reactor Safety and Projects
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

KMLNRC 86-039

Re: Docket No. STN 50-482

Subj: February, 1986 Monthly Operating Report

Gentlemen:

Enclosed is the February, 1986 Monthly Operating Report for Wolf Creek Generating Station. This submittal is being made in accordance with the requirements of Technical Specification 6.9.1.8.

Yours very truly,

Glenn L. Koester
Vice President - Nuclear

GLK:see

Enclosure

xc: PO'Connor (2), w/a
JTaylor (12), w/a
JCummins, w/a

86-267

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