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Nuclear Business Unit

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U. S. Nuclear Regulatory Commission  
Document Control Desk  
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Gentlemen:

**MONTHLY OPERATING REPORT  
HOPE CREEK GENERATING STATION UNIT 1  
DOCKET NO. 50-354**

In compliance with Section 6.9, Reporting Requirements for the Hope Creek Technical Specifications, the operating statistics for May 2000 are being forwarded. Also being forwarded, pursuant to the requirements of 10CFR50.59(b), is a summary of changes, tests, and experiments that were implemented in May 2000.

Sincerely,

Mark B. Bezilla  
Vice President - Operations

RAR  
Attachments

C Distribution

The power is in your hands.

NRR-063

IED4

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DOCKET NO.: 50-354  
 UNIT: Hope Creek  
 DATE: 6/12/00  
 COMPLETED BY: F. Todd  
 TELEPHONE: (856) 339-1316

Reporting Period May 2000

**OPERATING DATA REPORT**

Design Electrical Rating (MWe-Net)  
 Maximum Dependable Capacity (MWe-Net)

No. of hours reactor was critical  
 No. of hours generator was on line (service hours)

Unit reserve shutdown hours  
 Net Electrical Energy (MWH)

1067		
1031		
Month	Year-to-date	Cumulative
231	2919	99646
0	2687	97834
0	0	0
0	2687005	98985604

**UNIT SHUTDOWNS**

NO.	DATE	TYPE F=FORCED S=SCHEDULED	DURATION (HOURS)	REASON (1)	METHOD OF SHUTTING DOWN THE REACTOR (2)	CORRECTIVE ACTION/ COMMENT
1	5/1/00	S	570	C	4	RF09
	-					
	5/24/00					
2	5/24/00	F	174	A	5	"C" Main Transformer Failure - the reactor remained critical with the plant off-line
	-					
	5/31/00					

(1) Reason

(2) Method

- A - Equipment Failure (Explain)
- B - Maintenance or Test
- C - Refueling
- D - Regulatory Restriction
- E - Operator Training/License Examination
- F - Administrative
- G - Operational Error (Explain)
- H - Other

- 1 - Manual
- 2 - Manual Trip/Scram
- 3 - Automatic Trip/Scram
- 4 - Continuation
- 5 - Other (Explain)

DOCKET NO.: 50-354  
UNIT: Hope Creek  
DATE: 6/12/00  
COMPLETED BY: R. Ritzman  
TELEPHONE: (856) 339-1445

**Summary Of Monthly Operating Experience**

- Hope Creek entered the month of May shutdown for its 9<sup>th</sup> refueling outage.
- Hope Creek ended the 9<sup>th</sup> refueling outage and was placed back on line on May 24, at 1751. Shortly afterward, the turbine tripped due to the "C" main transformer failure. The reactor remained critical, with the plant off-line, through the end of the month.

DOCKET NO.: 50-354  
UNIT: Hope Creek  
DATE: 6/12/00  
COMPLETED BY: R. Ritzman  
TELEPHONE: (856) 339-1445

**SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS**  
**FOR THE HOPE CREEK GENERATING STATION**

**MONTH May 2000**

The following items completed during May 2000 have been evaluated to determine:

1. If the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased; or
2. If a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report may be created; or
3. If the margin of safety as defined in the basis for any technical specification is reduced.

The 10CFR50.59 Safety Evaluations showed that these items did not create a new safety hazard to the plant nor did they affect the safe shutdown of the reactor. These items did not change the plant effluent releases and did not alter the existing environmental impact. The 10CFR50.59 Safety Evaluations determined that no unreviewed safety or environmental questions are involved.

**Design Changes Summary of Safety Evaluations**

**4EC-3192, Package 1, Core Monitoring System Replacement.** This design change replaced the plant computer system. This design change package installs the core performance monitoring portion as a stand alone computer package. This design change also installs software that is required due to the new fuel design.

The core monitoring system is not safety related; is physically and electrically isolated from equipment that is classified as safety related or important to safety; and the loss of this system does not affect any equipment that is classified as safety related or important to safety. The core monitoring system does not provide any control or interlock functions to any plant equipment important to safety. This design change does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS**  
**FOR THE HOPE CREEK GENERATING STATION – Cont'd**

**4EC-3192, Package 2, Core Monitoring System Replacement.** This design change replaced the plant computer system. This design change package installs the rod worth minimizer portion as a stand-alone computer package.

The rod worth minimizer system is not safety related. Interfaces with other systems are high impedance or optically isolated so that failures of the rod worth minimizer will not prevent these systems from performing their intended functions. This design change does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**4EC-3634, Package 2, Abandonment of Waste Evaporators and Crystallizers and Permanent Isolation of Reactor Auxiliaries Cooling System Piping to Various Radwaste Coolers.** This design change isolated the Reactor Auxiliaries Cooling System (RACS) piping to various radwaste coolers, waste evaporators, waste tanks, crystallizer coolers, and extruder evaporators by installing weld neck flanges with blanks. The isolation of RACS piping to these coolers supports the abandonment of radwaste equipment.

The only safety related function that RACS performs is its containment isolation function. This design change does not affect the ability of RACS to perform that function. This design change does not affect the potential or magnitude of an inadvertent discharge of radioactive liquid. This design change does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**4EC-3674, Packages 1 through 4, Replacement of Class 1E 125VDC Station Batteries.** This design change replaced the "A", "B", "C", and "D" 125VDC Station Batteries with larger capacity batteries. The batteries are supplied by the same manufacturer and are the same size as the previous batteries.

The new batteries are Class 1E, environmentally and seismically qualified, and will perform the same function. The new batteries meet the design requirements and provide additional capacity. The capacity of the new batteries will allow them to supply continuous and emergency loads for four hours without battery charger support. This design change does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**80003048, Use of Helium and Sulfur Hexafluoride to Locate Condenser Circulating Water Leaks.** This design change installs taps on the 78-foot elevation condenser piping to be used for tracer gas injection into the circulating water system. Analysis and detection of these gases will help to determine the location of condenser leaks.

**SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS**  
**FOR THE HOPE CREEK GENERATING STATION – Cont'd**

The circulating water system piping that is affected by this design change is not safety related or important to safety. The low concentration of sulfur hexafluoride that is used for leak detection, the low solubility of sulfur hexafluoride in water, and the high removal efficiency of the air ejectors combine to minimize the potential to introduce measurable amounts of tracer gas into undesirable locations. This design change does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**80004138, Replace Portion of Existing Gland Seal Drain Lines With Flexible Hose Sections for High Pressure Coolant Injection Pump Turbine to Facilitate Drainage and Replace the Existing Gland Bodies with New Gland Bodies with Stainless Steel Material.** This design change replaced a portion of the existing drain lines from the High Pressure Coolant Injection (HPCI) turbine gland seal bodies with flexible hose sections to assure proper drainage. This design change also rerouted the lines to provide a downward slope. In addition, the gland bodies were replaced with stainless steel gland bodies to reduce corrosion.

This design change does not alter the function of the HPCI system. The existing control and logic portions of the system, and the stress and seismic analyses are not affected. This design change reduces maintenance and increases availability. This design change does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**80007334, Upgrade 2 Inch Drain Line From Extraction Steam to 6A and 6B Feedwater Heaters.** This design change replaces fittings and piping for two of the carbon steel small bore extraction steam drain lines with 2¼% chrome molybdenum piping.

This design change does not change the piping design requirements and the new piping material meets or exceeds the original specifications. There are no safety related components in the area affected by the design change and no routing changes outside the exiting design parameters were implemented as part of this design change. The pipe stresses and support loads remain in conformance to their applicable code and design basis allowable values. This design change does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**80011053, Station Service Water Lubrication Water Tank Replacement.** This design change replaced the station service water system lubrication water head tank (10T-544) with a modified section of pipe that serves as a lubricating water reservoir. The existing tank needed to be replaced because of corrosion. However, due to space

**SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS**  
**FOR THE HOPE CREEK GENERATING STATION – Cont'd**

constraints in the room, a new tank could not be installed; therefore, the modified pipe was installed to perform the function of a tank.

This design change does not affect the safety related functions provided by the tank. There are no changes to the control functions, power supplies, system interfaces, or required operator actions. The new reservoir was designed, fabricated, tested, and inspected to the appropriate codes and standards. This design change does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**80011215, Station Service Water Lubrication Water Tank Replacement.** This design change replaced the station service water system lubrication water head tank (10T-543) with a modified section of pipe that serves as a lubricating water reservoir. The existing tank needed to be replaced because of corrosion. However, due to space constraints in the room, a new tank could not be installed; therefore, the modified pipe was installed to perform the function of a tank.

This design change does not affect the safety related functions provided by the tank. There are no changes to the control functions, power supplies, system interfaces, or required operator actions. The new reservoir was designed, fabricated, tested, and inspected to the appropriate codes and standards. This design change does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**Temporary Modifications Summary of Safety Evaluations**

**TMR 00-014, Temporary Feedwater Sampling from Alternate Location.** This temporary modification installed a chemistry sampling rig to an existing tubing connection on the "B" feedwater header. This sampling rig will serve as an additional sampling point to assess feedwater chemistry.

This temporary modification requires connections to both feedwater and Turbine Auxiliaries Cooling System (TACS). Neither of these systems are safety related. The addition of the sample point does not affect the ability of feedwater to perform its design function and the temporary TACS cooling line does not impact the ability of either TACS or Safety Auxiliaries Cooling System to perform their function. This temporary modification does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**TMR 00-015, Jumper Low Suction Pressure Trip Function for "A" Primary Containment Instrument Gas Compressor.** This temporary modification removed a compressor trip on low suction pressure. The trip was removed because the pressure

**SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS**  
**FOR THE HOPE CREEK GENERATING STATION – Cont'd**

switch that provides the signal was responding erratically and there are no available replacements. This pressure switch is used to detect potential clogs in the inlet filter and to provide a signal to shut down the compressor if a clog is detected. The filter has been recently installed and is not expected to be subject to clogging prior to the replacement part being available. This temporary modification does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**Procedures Summary of Safety Evaluations**

**HC.OP-SO.BF-0001(Q), Rev. 19, Control Rod Drive Hydraulic System Operation.**

This procedure revision permits the manual control of the Control Rod Drive (CRD) flow control valve. This safety evaluation was written because the use of manual control for this valve was not discussed in the UFSAR.

The CRD Hydraulic system is a non safety-related system. The operation of the system as described in this procedure revision is in accordance with vendor information and does not affect the ability of the system to perform its design function. This procedure revision does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**HC.OP-SO.BG-0001(Q), Rev. 29, Reactor Water Cleanup System Operation.** This procedure revision permits the reactor water regenerative heat exchanger to be bypassed to remove reactor decay heat during STARTUP. This allowed reactor water temperature to remain below 200 degrees F. during reactivity testing of the new fuel that was loaded during the refueling outage. This procedure revision was intended to be a temporary, one-time change to support new fuel design testing.

Reactor water cleanup is a non safety-related system; operation of this system as described in the procedure revision does not affect the ability to isolate the system. This procedure revision does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**HC.OP-SO.BF-0001, Rev. 11, Reactor Manual Control System Operation.** This procedure revision adds a section to place the Test Address Auto/Manual switch on the Fault Map in Manual Mode and a section to place the Scan Address Auto/Manual switch on the Fault Map in Manual Mode.

This change affects the Rod Drive Control subsystem of the Reactor Manual Control System. The Rod Drive Control subsystem is not safety related and is not used for monitoring of variables and systems as discussed in Regulatory Guide 1.97. This

**SUMMARY OF CHANGES, TESTS, AND EXPERIMENTS**  
**FOR THE HOPE CREEK GENERATING STATION – Cont'd**

procedure revision does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**UFSAR Change Notices Summary of Safety Evaluations**

**UFSAR Change Notice H00-021, Halon Cylinder Inspection Frequency.** This change notice revised the UFSAR to clarify that the inspection frequency for weighing the Halon cylinders for the Control Room Halon system is performed semi-annually in accordance with NFPA Standard 12A. In the past, this weigh test has been conducted semi-annually with successful results. The Fire Hazard Analysis does not credit the use of this Halon system to mitigate the effects of a fire. This change notice does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.

**UFSAR Change Notice H00-027, Fire Detector Type.** This change notice revised the UFSAR to change photoelectric spot type fire detectors to ionization spot type fire detectors. The ionization spot type fire detectors are less susceptible to false alarms and are more reliable.

Both types of detectors are early warning detectors that are sensitive to the incipient stage of fire development, including fires with long incipient and smoldering stages. Both of these types of fire detectors are qualified in accordance with NFPA 72 and are subject to the same testing criteria. Therefore, the effectiveness of the fire detection system is not reduced by the use of the ionization spot type fire detectors. This change notice does not increase the possibility or consequences of any accident or malfunction, does not reduce the margin of safety, and does not involve an Unreviewed Safety Question.