

HOPE CREEK GENERATING STATION  
FACILITY OPERATING LICENSE NPF-57  
DOCKET NO. 50-354  
MOV THERMAL OVERLOAD PROTECTION TABLE

TECHNICAL SPECIFICATION PAGES WITH PROPOSED CHANGES

The following Technical Specifications for Facility Operating License No. NPF-57 are affected by this change request:

<u>Technical Specification</u>	<u>Page</u>
3.8.4.2	3/4 8-30
Table 3.8.4.2-1	3/4 8-31 through 3/4 8-37
Bases 3/4.8.4	B 3/4 8-3

## ELECTRICAL POWER SYSTEMS

### MOTOR OPERATED VALVES - THERMAL OVERLOAD PROTECTION (BYPASSED)

#### LIMITING CONDITION FOR OPERATION

3.8.4.2 The thermal overload protection bypass circuit of each motor operated valve (MOV) shown in Table 3.8.4.2-1 shall be OPERABLE.

*required to have thermal overload protection*  
APPLICABILITY: Whenever the MOV is required to be OPERABLE.

#### ACTION:

With the thermal overload protection bypass circuit for one or more of the above required MOVs inoperable, restore the inoperable thermal overload protection bypass circuit(s) to OPERABLE status within 8 hours or declare the affected MOV(s) inoperable and apply the appropriate ACTION statement(s) for the affected system(s).

#### SURVEILLANCE REQUIREMENTS

4.8.4.2.1 The thermal overload protection bypass circuit for each of the above required MOVs shall be demonstrated OPERABLE:

- a. At least once per 18 months by the performance of a CHANNEL FUNCTIONAL TEST for:
  1. Those thermal overload protection devices which are normally in force during plant operation and bypassed only under accident conditions.
  2. A representative sample of at least 25% of those thermal overload protection devices which are bypassed continuously and temporarily placed in force only when the MOVs are undergoing periodic or maintenance testing, such that the bypass circuitry for each thermal overload protection device of this type is tested at least once per 6 years.
  3. A representative sample of at least 25% of those thermal overload protection devices which are in force during normal manual (momentary push button contact) MOV operation and bypassed during remote manual (push button held depressed) MOV operation, such that the bypass circuitry for each thermal overload protection device of this type is tested at least once per 6 years.
- b. Following maintenance on the motor starter.

4.8.4.2.2 The thermal overload protection for the above required MOVs which are continuously bypassed and temporarily placed in force only when the MOV is undergoing periodic or maintenance testing shall be verified to be continuously bypassed following such testing.

TABLE 3.8.4.2-1

MOTOR OPERATED VALVES - THERMAL OVERLOAD PROTECTION (BYPASSED)

<u>VALVE NUMBER</u>	<u>THERMAL OVERLOAD PROTECTION STATUS</u>	<u>SYSTEM(S) AFFECTED</u>
1AB-HV-F016	2	Main Steam
1AB-HV-F019	2	Main Steam
1AB-HV-F067A	2	Main Steam
1AB-HV-F067B	2	Main Steam
1AB-HV-F067C	2	Main Steam
1AB-HV-F067D	2	Main Steam
1AB-HV-F071	3	Main Steam
1AB-HV-3631A	3	Main Steam
1AB-HV-3631B	3	Main Steam
1AB-HV-3631C	3	Main Steam
1AB-HV-3631D	3	Main Steam
1AE-HV-F032A	3	Feedwater
1AE-HV-F032B	3	Feedwater
1AE-HV-F039	3	Feedwater
1AE-HV-4144	3	Feedwater
1AN-HV-2600	3	Demineralized Water
0AP-HV-2072	3	Condensate Storage & Transfer
0AP-HV-2073	3	Condensate Storage & Transfer
1AP-HV-F011	1	Condensate Storage & Transfer
1BC-HV-F004A	3	Residual Heat Removal (RHR)
1BC-HV-F004B	3	RHR
1BC-HV-F004C	3	RHR
1BC-HV-F004D	3	RHR
1BC-HV-F006A	3	RHR
1BC-HV-F006B	3	RHR
1BC-HV-F007A	1	RHR
1BC-HV-F007B	1	RHR
1BC-HV-F007C	1	RHR
1BC-HV-F007D	1	RHR
1BC-HV-F008	2	RHR
1BC-HV-F009	2	RHR
1BC-HV-F010A	2	RHR
1BC-HV-F010B	2	RHR
1BC-HV-F015A	2	RHR
1BC-HV-F015B	2	RHR
1BC-HV-F016A	3	RHR
1BC-HV-F016B	3	RHR
1BC-HV-F017A	1	RHR
1BC-HV-F017B	1	RHR
1BC-HV-F017C	1	RHR
1BC-HV-F017D	1	RHR
1BC-HV-F021A	3	RHR
1BC-HV-F021B	3	RHR
1BC-HV-F022	2	RHR
1BC-HV-F023	2	RHR

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES - THERMAL OVERLOAD PROTECTION (BYPASSED)

<u>VALVE NUMBER</u>	<u>THERMAL OVERLOAD PROTECTION STATUS</u>	<u>SYSTEM(S) AFFECTED</u>
1BC-HV-F024A	2	RHR
1BC-HV-F024B	2	RHR
1BC-HV-F027A	2	RHR
1BC-HV-F027B	2	RHR
1BC-HV-F040	2	RHR
1BC-HV-F047A	3	RHR
1BC-HV-F047B	3	RHR
1BC-HV-F048A	1	RHR
1BC-HV-F048B	1	RHR
1BC-HV-F049	2	RHR
1BC-HV-F075	3	RHR
1BC-HV-4439	3	RHR
1BC-HV-5055A	2	Containment Atmosphere Control
1BC-HV-5055B	2	Containment Atmosphere Control
1BD-HV-F010	2	Reactor Core Isolation Cooling (RCIC)
1BD-HV-F012	1	RCIC
1BD-HV-F013	1	RCIC
1BD-HV-F022	2	RCIC
1BD-HV-F031	1	RCIC
1BD-HV-F046	1	RCIC
1BE-HV-F001A	3	Core Spray
1BE-HV-F001B	3	Core Spray
1BE-HV-F001C	3	Core Spray
1BE-HV-F001D	3	Core Spray
1BE-HV-F004A	1	Core Spray
1BE-HV-F004B	1	Core Spray
1BE-HV-F005A	1	Core Spray
1BE-HV-F005B	1	Core Spray
1BE-HV-F015A	2	Core Spray
1BE-HV-F015B	2	Core Spray
1BE-HV-F031A	1	Core Spray
1BE-HV-F031B	1	Core Spray
1BF-HV-3800A	3	Control Rod Drive
1BF-HV-3800B	3	Control Rod Drive
1BF-HV-4005	3	Control Rod Drive
1BG-HV-F001	2	Reactor Water Cleanup
1BG-HV-F004	2	Reactor Water Cleanup
1BG-HV-F034	3	Reactor Water Cleanup
1BG-HV-F035	3	Reactor Water Cleanup
1BG-HV-3980	3	Reactor Water Cleanup
1BH-HV-F006A	3	Standby Liquid Control
1BH-HV-F006B	3	Standby Liquid Control

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES - THERMAL OVERLOAD PROTECTION (BYPASSED)

<u>VALVE NUMBER</u>	<u>THERMAL OVERLOAD PROTECTION STATUS</u>	<u>SYSTEM(S) AFFECTED</u>
1BJ-HV-F004	1	High Pressure Coolant Injection (HPCI)
1BJ-HV-F006	1	HPCI
1BJ-HV-F007	1	HPCI
1BJ-HV-F008	2	HPCI
1BJ-HV-F012	1	HPCI
1BJ-HV-F042	1	HPCI
1BJ-HV-F059	1	HPCI
1BJ-HV-4803	3	HPCI
1BJ-HV-4804	3	HPCI
1BJ-HV-4865	3	HPCI
1BJ-HV-4866	3	HPCI
1BJ-HV-8278	1	HPCI
OBN-HV-2069	3	Refueling Water Transfer
1EA-HV-F073	3	Station Service Water
1EA-HV-2197A	3	Station Service Water
1EA-HV-2197B	3	Station Service Water
1EA-HV-2197C	3	Station Service Water
1EA-HV-2197D	3	Station Service Water
1EA-HV-2198A	2	Station Service Water
1EA-HV-2198B	2	Station Service Water
1EA-HV-2198C	2	Station Service Water
1EA-HV-2198D	2	Station Service Water
1EA-HV-2203	3	Station Service Water
1EA-HV-2204	3	Station Service Water
1EA-HV-2207	3	Station Service Water
1EA-HV-2234	3	Station Service Water
1EA-HV-2236	3	Station Service Water
1EA-HV-2238	3	Station Service Water
1EA-HV-2346	3	Station Service Water
1EA-HV-2355A	2	Station Service Water
1EA-HV-2355B	2	Station Service Water
1EA-HV-2356A	3	Station Service Water
1EA-HV-2356B	3	Station Service Water
1EA-HV-2357A	3	Station Service Water
1EA-HV-2357B	3	Station Service Water
1EA-HV-2371A	2	Station Service Water
1EA-HV-2371B	2	Station Service Water
1EC-HV-4647	3	Fuel Pool Cooling
1EC-HV-4648	3	Fuel Pool Cooling
1EC-HV-4689A	3	Fuel Pool Cooling
1EC-HV-4689B	3	Fuel Pool Cooling
1ED-HV-2553	2	Reactor Auxiliaries Cooling
1ED-HV-2554	2	Reactor Auxiliaries Cooling

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES - THERMAL OVERLOAD PROTECTION (BYPASSED)

<u>VALVE NUMBER</u>	<u>THERMAL OVERLOAD PROTECTION STATUS</u>	<u>SYSTEM(S) AFFECTED</u>
1ED-HV-2555	2	Reactor Auxiliaries Cooling
1ED-HV-2556	2	Reactor Auxiliaries Cooling
1ED-HV-2598	3	Reactor Auxiliaries Cooling
1ED-HV-2599	3	Reactor Auxiliaries Cooling
1EE-HV-4652	2	Torus Water Cleanup
1EE-HV-4679	2	Torus Water Cleanup
1EE-HV-4680	2	Torus Water Cleanup
1EE-HV-4681	2	Torus Water Cleanup
1EG-HV-2314A	3	Safety Auxiliaries Cooling
1EG-HV-2314B	3	Safety Auxiliaries Cooling
1EG-HV-2317A	3	Safety Auxiliaries Cooling
1EG-HV-2317B	3	Safety Auxiliaries Cooling
1EG-HV-2320A	3	Safety Auxiliaries Cooling
1EG-HV-2320B	3	Safety Auxiliaries Cooling
1EG-HV-2321A	2	Safety Auxiliaries Cooling
1EG-HV-2321B	2	Safety Auxiliaries Cooling
1EG-HV-2446	3	Safety Auxiliaries Cooling
1EG-HV-2447	3	Safety Auxiliaries Cooling
1EG-HV-2452A	3	Safety Auxiliaries Cooling
1EG-HV-2452B	3	Safety Auxiliaries Cooling
1EG-HV-2453A	2	Safety Auxiliaries Cooling
1EG-HV-2453B	2	Safety Auxiliaries Cooling
1EG-HV-2491A	3	Safety Auxiliaries Cooling
1EG-HV-2491B	3	Safety Auxiliaries Cooling
1EG-HV-2494A	3	Safety Auxiliaries Cooling
1EG-HV-2494B	3	Safety Auxiliaries Cooling
1EG-HV-2496A	3	Safety Auxiliaries Cooling
1EG-HV-2496B	3	Safety Auxiliaries Cooling
1EG-HV-2496C	3	Safety Auxiliaries Cooling
1EG-HV-2496D	3	Safety Auxiliaries Cooling
1EG-HV-2512A	3	Safety Auxiliaries Cooling
1EG-HV-2512B	3	Safety Auxiliaries Cooling
1EG-HV-7921A	3	Safety Auxiliaries Cooling
1EG-HV-7921B	3	Safety Auxiliaries Cooling
1EG-HV-7922A	3	Safety Auxiliaries Cooling
1EG-HV-7922B	3	Safety Auxiliaries Cooling
1EP-HV-2225A	3	Station Service Water
1EP-HV-2225B	3	Station Service Water
1EP-HV-2225C	3	Station Service Water
1EP-HV-2225D	3	Station Service Water
1FC-HV-F007	2	Reactor Core Isolation Cooling (RCIC)
1FC-HV-F008	2	RCIC

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES - THERMAL OVERLOAD PROTECTION (BYPASSED)

<u>VALVE NUMBER</u>	<u>THERMAL OVERLOAD PROTECTION STATUS</u>	<u>SYSTEM(S) AFFECTED</u>
1FC-HV-F045	2	RCIC
1FC-HV-F059	3	RCIC
1FC-HV-F060	3	RCIC
1FC-HV-F062	2	RCIC
1FC-HV-F076	2	RCIC
1FC-HV-F084	2	RCIC
1FC-HV-4282	3	RCIC
1FD-HV-F001	1	High Pressure Coolant Injection (HPCI)
1FD-HV-F002	2	HPCI
1FD-HV-F003	2	HPCI
1FD-HV-F071	3	HPCI
1FD-HV-F075	2	HPCI
1FD-HV-F079	2	HPCI
1FD-HV-F100	2	HPCI
1FD-HV-4922	2	HPCI
1GB-HV-9531A1	2	Chilled Water
1GB-HV-9531A2	2	Chilled Water
1GB-HV-9531A3	2	Chilled Water
1GB-HV-9531A4	2	Chilled Water
1GB-HV-9531B1	2	Chilled Water
1GB-HV-9531B2	2	Chilled Water
1GB-HV-9531B3	2	Chilled Water
1GB-HV-9531B4	2	Chilled Water
1GB-HV-9532-1	3	Chilled Water
1GB-HV-9532-2	3	Chilled Water
1GH-HV-5543	3	Radwaste Area Vent
1GS-HV-4955A	2	Containment Atmosphere Control
1GS-HV-4955B	2	Containment Atmosphere Control
1GS-HV-4959A	2	Containment Atmosphere Control
1GS-HV-4959B	2	Containment Atmosphere Control
1GS-HV-4965A	2	Containment Atmosphere Control
1GS-HV-4965B	2	Containment Atmosphere Control
1GS-HV-4966A	2	Containment Atmosphere Control
1GS-HV-4966B	2	Containment Atmosphere Control
1GS-HV-4974	2	Containment Atmosphere Control
1GS-HV-4983A	2	Containment Atmosphere Control
1GS-HV-4983B	2	Containment Atmosphere Control
1GS-HV-4984A	2	Containment Atmosphere Control
1GS-HV-4984B	2	Containment Atmosphere Control
1GS-HV-5019A	2	Containment Atmosphere Control
1GS-HV-5019B	2	Containment Atmosphere Control
1GS-HV-5022A	2	Containment Atmosphere Control
1GS-HV-5022B	2	Containment Atmosphere Control

TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES - THERMAL OVERLOAD PROTECTION (BYPASSED)

<u>VALVE NUMBER</u>	<u>THERMAL OVERLOAD PROTECTION STATUS</u>	<u>SYSTEM(S) AFFECTED</u>
1GS-HV-5050A	2	Containment Atmosphere Control
1GS-HV-5050B	2	Containment Atmosphere Control
1GS-HV-5052A	2	Containment Atmosphere Control
1GS-HV-5052B	2	Containment Atmosphere Control
1GS-HV-5053A	2	Containment Atmosphere Control
1GS-HV-5053B	2	Containment Atmosphere Control
1GS-HV-5054A	2	Containment Atmosphere Control
1GS-HV-5054B	2	Containment Atmosphere Control
1GS-HV-5057A	2	Containment Atmosphere Control
1GS-HV-5057B	2	Containment Atmosphere Control
1HB-HV-F003	2	Liquid Radwaste
1HB-HV-F004	2	Liquid Radwaste
1HB-HV-F019	2	Liquid Radwaste
1HB-HV-F020	2	Liquid Radwaste
1HB-HV-5262	3	Liquid Radwaste
1HB-HV-5275	3	Liquid Radwaste
1HC-HV-5551	3	Solid Radwaste
1KA-HV-7626	3	Service Compressed Air
1KB-HV-7629	3	Instrument Air (Backup to PCIG System)
1KL-HV-5124A	2	Primary Containment Instrument Gas (PCIG)
1KL-HV-5124B	2	PCIG
1KL-HV-5126A	2	PCIG
1KL-HV-5126B	2	PCIG
1KL-HV-5147	2	PCIG
1KL-HV-5148	2	PCIG
1KL-HV-5152A	2	PCIG
1KL-HV-5152B	2	PCIG
1KL-HV-5160A	3	PCIG
1KL-HV-5160B	3	PCIG
1KL-HV-5162	2	PCIG
1KL-HV-5172A	2	PCIG
1KL-HV-5172B	2	PCIG
1KP-HV-5829A	3	Main Steam Isolation Valve Sealing
1KP-HV-5829B	3	Main Steam Isolation Valve Sealing
1KP-HV-5834A	2	Main Steam Isolation Valve Sealing
1KP-HV-5834B	3	Main Steam Isolation Valve Sealing
1KP-HV-5835A	2	Main Steam Isolation Valve Sealing
1KP-HV-5835B	3	Main Steam Isolation Valve Sealing
1KP-HV-5836A	2	Main Steam Isolation Valve Sealing
1KP-HV-5836B	3	Main Steam Isolation Valve Sealing



TABLE 3.8.4.2-1 (Continued)

MOTOR OPERATED VALVES - THERMAL OVERLOAD PROTECTION (BYPASSED)

<u>VALVE NUMBER</u>	<u>THERMAL OVERLOAD PROTECTION STATUS</u>	<u>SYSTEM(S) AFFECTED</u>
1KP-HV-5837A	2	Main Steam Isolation Valve Sealing
1KP-HV-5837B	3	Main Steam Isolation Valve Sealing
1SK-HV-4953	2	Plant Leak Detection
1SK-HV-4957	2	Plant Leak Detection
1SK-HV-4981	2	Plant Leak Detection
1SK-HV-5018	2	Plant Leak Detection

THERMAL OVERLOAD PROTECTION STATUS CODES

1. Normally in force during plant operation and bypassed only under accident conditions.
2. Bypassed continuously and temporarily placed in force only when the MOVs are undergoing periodic or maintenance testing.
3. In force during normal remote manual (momentary push button contact) MOV operation and bypassed during remote manual (push button held depressed) MOV operation.

## ELECTRICAL POWER SYSTEMS

### BASES

#### A.C. SOURCES, D.C. SOURCES and ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

Operation with a battery cell's parameter outside the normal limit but within the allowable value specified in Table 4.8.2.1-1 is permitted for up to 31 days. During this 31 day period: (1) the allowable values for electrolyte level ensures no physical damage to the plates with an adequate electron transfer capability; (2) the allowable value for the average specific gravity of all the cells, not more than .020 below the manufacturer's recommended full charge specific gravity ensures that the decrease in rating will be less than the safety margin provided in sizing; (3) the allowable value for an individual cell's specific gravity, ensures that an individual cell's specific gravity will not be more than .040 below the manufacturer's full charge specific gravity and that the overall capability of the battery will be maintained within an acceptable limit; (4) the allowable value for an individual cell's float voltage, greater than 2.07 volts, ensures the battery's capability to perform its design function; (5) the TABLE 4.8.2.1-1 NOTATION 31 day ACTION time was derived taking into consideration that while battery capacity is degraded, sufficient capacity exists to perform the intended function while providing a time period adequate to permit full restoration of the battery cell parameters to normal limits.

#### 1/4.8.4 ELECTRICAL EQUIPMENT PROTECTIVE DEVICES

Primary containment electrical penetrations and penetration conductors are protected by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers by periodic surveillance.

The surveillance requirements applicable to lower voltage circuit breakers provides assurance of breaker reliability by testing one representative sample of each manufacturers brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers, it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

The OPERABILITY or bypassing of the motor operated valves thermal overload protection continuously or during accident conditions by integral bypass devices ensures that the thermal overload protection during accident conditions will not prevent safety related valves from performing their function. The Surveillance Requirements for demonstrating the OPERABILITY or bypassing of the thermal overload protection continuously or during accident conditions are in accordance with Regulatory Guide 1.106 "Thermal Overload Protection for Electric Motors on Motor Operated Valves", Revision 1, March 1977.

*The list of MOVs required to have thermal overload bypass circuitry is contained in UFSAR Table 8.3-11.*