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VPNPD-91- 175
NRC-91- 050

10 CFR 50.59
10 CFR 50.90
10 CFR 50.4

May 30, 1991

U. S. NUCLEAR REGULATORY COMMISSION
Document Control Desk
Mail Station P1-137
Washington, D. C. 20555

Gentlemen:

DOCKETS 50-266 AND 50-301
TECHNICAL SPECIFICATION CHANGE REQUEST 145
PRESSURIZER PORV AND BLOCK VALVE REQUIREMENTS
and OVERPRESSURE MITIGATING SYSTEM OPERATIONS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

In accordance with the requirements of 10 CFR 50.59(c), 50.90, and 50.4, Wisconsin Electric Power Company (Licensee) hereby requests amendments to Facility Operating Licenses DPR-24 and DPR-27 for Point Beach Nuclear Plant, Units 1 and 2 respectively, to incorporate changes in the plant Technical Specifications. The proposed changes, as detailed below, revise Specifications 15.3.1.A.5 and 15.3.15 and Tables 15.4.1-1 and 15.4.1-2. The changes specify more stringent Limiting Conditions for Operation (LCOs) and Surveillance Requirements for pressurizer power-operated relief valves (PORVs) and block valves. Marked-up copies of the applicable Technical Specification pages containing the changes proposed in this application are attached.

We are proposing these changes to our Technical Specifications to conform to the Nuclear Regulatory Commission's position that was conveyed in Generic Letter (GL) 90-06. That letter provided the Nuclear Regulatory Commission's plan for resolution of Generic Issue 70, "Power-Operated Relief Valve and Blocking Valve Reliability" and Generic Issue 94, "Additional Low-Temperature Overpressure Protection for Light Water Reactors." In our November 14, 1990 response to GL 90-06, we committed to revise our Technical Specifications based on the model specifications that had been provided as attachments to the Generic Letter.

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Generic Issue 70, "Power-Operated Relief Valve and Blocking Valve Reliability" revealed that, although PORVs and block valves were not originally designed as safety-related components, they are now utilized to perform some functions, such as mitigation of a design-basis steam generator tube rupture accident and low-temperature overpressure protection (LTOP) of the reactor vessel during startup and shutdown. GL 90-06 addressed Generic Issue 70 and mandated Technical Specification revisions aimed at improving the reliability of PORVs and block valves. Our proposed changes to Specification 15.3.1.A.5, "Pressurizer Power-Operated Relief Valves and PORV Block Valves", incorporate the guidance contained in GL 90-06. These changes are discussed as follows:

A. Specification 15.3.1.A.5.a.(1) states that, if a PORV is inoperable due to excessive seat leakage greater than the Technical Specification limit, within one hour either the PORV must be restored to an operable condition or the associated block valve must be closed. The change proposed with this application requires that when a PORV seat leaks excessively, the associated block valve must be closed with electrical power maintained to the block valve. The block valve is closed to maintain the reactor coolant pressure boundary integrity. Power is maintained to the block valve so that the block valve remains available and, if necessary, the block valve can be opened to allow the PORV to control reactor coolant system pressure. Finally, the basis for this specification has been changed to state that the block valve(s) may remain closed to isolate a PORV with excessive seat leakage for a limited period of time not to exceed the end of the next refueling shutdown. In the past we have consistently performed corrective maintenance on inoperative PORVs during refueling shutdowns. In the future, we fully intend to continue to perform corrective maintenance on inoperative PORVs during refueling shutdowns.

B. Specification 15.3.1.A.5.a.(2) states that, if a PORV is considered inoperable due to a channel functional test failure, within one hour either the associated PORV channel switch must be restored to an operable condition or the associated block valve must be closed. Our proposed change has more comprehensive wording in that it encompasses PORVs that are "inoperable for reasons other than that of excessive seat leakage" rather than just those that are "inoperable due to a channel functional test failure." The proposed change also requires that when a PORV is inoperable for reasons other than excessive seat leakage, the block valve must be shut with electrical power removed. Removing electrical power prevents the block valve from inadvertently opening while its associated PORV could potentially be open due to maintenance.

C. Specification 15.3.1.A.5 does not currently address the situation in which two PORVs are inoperable. Our proposed change, 15.3.1.A.5.a.(3), specifies that at least one PORV must be returned to an operable status within one hour.

D. Existing specification 15.3.1.A.5.a.(3) currently states that, if a block valve is inoperable, the block valve shall be restored to an operable condition within one hour or the block valve shall be closed with power removed from the block valve. The proposed change, 15.3.1.A.5.a.(4), requires that when a block valve is inoperable, the associated PORV must be placed in manual control. Placing the PORV in manual control precludes the PORV from automatically opening for an overpressure event and it minimizes the potential for a stuck-open PORV at a time when the block valve is inoperable. The proposed change deletes the requirement to close the inoperative block valve because such action would probably not be possible when the block valve is inoperable.

E. Specification 15.3.1.A.5 does not currently address the situation in which both block valves are inoperable. The proposed change, 15.3.1.A.5.a.(5), specifies that when both block valves are inoperable, one block valve must be restored to an operable condition within one hour.

F. In its discussion of Generic Issue 70, GL 90-06 also mandated several changes to surveillance requirements involving PORVs. These changes have been incorporated into our proposal and are discussed below:

1. Table 15.4.1-2, "Minimum Frequencies for Equipment and Sampling Tests," lists surveillance requirements for various equipment. The proposed change modifies Item 23, "PORV Block Valves," deleting the requirement to cycle block valves that have been shut to isolate a PORV that is inoperable for reasons other than excessive seat leakage. This is consistent with Specification 15.3.1.A.5.a.(2) which requires the block valve to remain shut under these circumstances, and it will preclude cycling the block valve with full system differential pressure applied.

2. Also in Table 15.4.1-2, Item 28, "Power Operated Relief Valves (PORVs), PORV Solenoid Air Control Valves, and Air System Check Valves," has been added as a new surveillance requirement. This requirement states these valves must be operated each refueling shutdown, and it will provide assurance that the PORVs will

perform their function. Please note that the model specification contained in Generic Letter 90-06 suggested that this surveillance be completed during mode 3 or mode 4, that is at a temperature ≥200°F. The elevated temperature was supposed to simulate temperature and pressure environmental effects on the PORVs. When entering a refueling shutdown, however, there is only a short period of time in which this surveillance could be completed at the elevated temperature. To maximize our operational flexibility, we have not included this temperature requirement in our proposal.

Please note that the model specification contained in GL 90-06 is written in the standardized Technical Specification format and refers to "operational modes" which are not defined in the Point Beach Technical Specifications. The model specifications require that when the operability conditions cannot be met, the reactor must be placed in a standby condition within six hours and in a shutdown condition within the following six hours. The shutdown condition described in the model specification refers to a typical reactor coolant system temperature band of 200-350°F. The requirement that was contained in the model specification to cool down the reactor to 350°F within six hours after shutdown is not included in our proposal. Our proposed change to Specification 15.3.1.A.5 requires the reactor to be placed in a Hot Shutdown Condition when the requirements of the specification cannot be met. At Point Beach, Hot Shutdown is defined as a subcritical reactor with the reactor coolant temperature at or above 540°F. At Point Beach, if the reactor coolant system is cooled down below the minimum temperature for the inservice pressurization test, which is currently 360°F, the overpressure mitigation system must be placed in service to provide overpressure relief protection for the reactor coolant system. In this situation, since it would already be known that the overpressure mitigation system would not be functional because of inoperative PORV(s) or block valves, it would be prudent to maintain the reactor coolant system at an elevated temperature so that reactor coolant system overpressure protection would be provided by the pressurizer safety valves.

The model specification contained in GL 90-06 requires plant shutdown when a single block valve or PORV has been inoperative for reasons other than seat leakage for a period of 72 hours. The intent of the Generic Letter is to ensure that, in the event

of a steam generator tube rupture (SGTR) accident during reactor operation, PORVs and block valves would be available to depressurize the reactor coolant system. Normally, this depressurization can be accomplished in a variety of ways including (1) the use of the normal pressurizer spray that is available when the reactor coolant pumps are running; (2) the use of the auxiliary pressurizer spray, which does not require the reactor coolant pumps but, rather, derives its flow from the charging pumps; or (3) opening the PORV and discharging steam from the pressurizer steam space. At Point Beach, normal pressurizer spray and auxiliary spray are used as the preferred means of depressurization during a SGTR; PORVs are used as the least preferred means of depressurization. In the event of a SGTR with a simultaneous failure of both the reactor coolant pumps and the charging pumps, we would open only one of the two PORVs to relieve reactor coolant system pressure. Because only one of two PORVs is required as a backup means to mitigate the SGTR accident, this proposal does not include the requirement to shut down the reactor if a single block valve or PORV is inoperative. This proposal does, however, include the requirement to shut down the reactor if both block valves or both PORVs are inoperative for reasons other than seat leakage.

The model specification contained in GL 90-06 also states that a PORV is considered operable if it can operate manually and automatically to relieve reactor coolant system pressure increases. Since automatic operation of the PORV is not required for the SGTR accident, our proposed change to the basis of Specification 15.3.1.A.5, which is in effect for reactor coolant system temperatures >360°F, states that the PORVs must operate manually to be considered operable. Since automatic operation of the PORV is required for the Overpressure Mitigation System, the basis for Specification 15.3.15, which is in effect for reactor coolant system temperatures $\leq$ 360°F, states that the PORVs must operate automatically for the Overpressure Mitigation System to be considered operational.

Please also note that the model specification contained in GL 90-06 included a surveillance requirement for testing the emergency electrical power supplies to the PORVs and block valves. This requirement is discussed as follows:

A. At Point Beach the PORVs are air-operated valves. The solenoid valve that controls air to the PORV operator is powered by a DC battery charger that is in parallel with a battery. If power is lost to the battery charger, the battery supplies uninterrupted power to the PORV control air

solenoid valve. Because the PORV control air solenoid receives a constant power supply from a battery, it is unnecessary to test the emergency power supply to the PORV, and the proposed change to our Technical Specifications does not include this test.

B. At Point Beach the block valves receive electrical power from off-site power through the 480 volt safeguard buses and then through 480 volt motor control centers (MCCs). If off-site power is lost, the emergency diesel generators will automatically power the 480 volt safeguard buses and, in turn, the 480 volt MCCs that supply power to the PORVs. The diesel generators and the related automatic load transfer systems are presently tested to ensure operability; this testing demonstrates the continuity of power to the PORVs after a loss of their normal power supply. Additional testing of emergency power supplies to block valves has not been included in the proposed change.

GL 90-06 also discussed the resolution of Generic Issue 94, "Additional Low-Temperature Overpressure Protection for Light-Water Reactors." The resolution of this issue revealed that a low-temperature overpressure transient is most likely to occur when the reactor coolant temperature is less than or equal to 200°F. GL 90-06 mandated administrative controls for the Overpressure Mitigation System (OMS) that will improve the availability of the system when the potential for an overpressure event is the highest. Our proposed changes to Specification 15.3.15 incorporate the guidance in GL 90-06 into our Technical Specifications and are discussed as follows:

A. Specification 15.3.15, "Overpressure Mitigation System Operations," lists LCOs for the OMS that are in effect when the reactor coolant system is less than the minimum temperature for the inservice pressurization test. Currently, when the reactor coolant temperature is less than 360°F, a PORV can be inoperable for up to seven days before the reactor coolant system must be opened to atmosphere. In the change proposed to Specification 15.3.15.A.2, when reactor coolant temperature is less than or equal to 200°F, a PORV can be inoperable for a total of only 32 hours before the reactor coolant system must be opened to atmosphere.

B. Our proposed change also includes the addition of a new LCO, 15.3.15.A.3, that states that when the reactor coolant system is open to atmosphere because of an inoperable PORV, the vent pathway must be verified on a periodic basis. When the pathway is provided by a non-isolable atmosphere pathway or by a valve(s) that is locked, sealed, or otherwise

secured in position, the pathway must be verified every 31 days; otherwise, the pathway must be verified every 12 hours.

C. Specification 15.3.15 currently states that when PORVs are inoperable, the reactor coolant system must be vented to the pressurizer relief tank. The proposed change states that when PORVs are inoperable, the reactor coolant system must be opened to atmosphere. In the basis of Specification 15.3.15, the term "open to atmosphere" has been defined as an opening in the reactor coolant system pressure boundary that will relieve system pressure. Examples of these openings include PORVs that are open to the pressurizer relief tank, open steam generator manways, and the top of the reactor vessel when the reactor vessel head has been removed or unbolted. This change has been included in the proposal because the term "open to atmosphere" was not previously defined and because there are several acceptable ways to vent the reactor coolant system.

In its discussion of Generic Issue 14, GL 90-06 mandated a change to surveillance requirements involving the OMS. In our proposal, an open position check of block valves has been added to Item 23, "PORV Block Valves," in Table 15.4.1-2. This check is required only when the OMS is in operation, and it will ensure that the PORVs have a flow path available to relieve reactor coolant system pressure.

Please note that the proposed change includes two administrative changes that have been included to improve the clarity of specifications pertaining to the OMS. The proposed changes are discussed as follows:

A. Specification 15.3.15.A.1.b is an operability requirement that currently states, "The upstream isolation valves to both power-operated relief valves are open." The proposed change rewords this statement stating, "Both power operated relief block valves are open." This is an administrative change that will make the statement more understandable to the users of the specification, but it does not change the meaning of the specification.

B. In Table 15.4.1-1, "Minimum Frequencies for Checks, Calibrations, and Test of Instrument Channels," surveillance requirement Item 29, "Overpressure Mitigation," requires the overpressure mitigation system instrument channel to be checked once per shift. A remark has been added to indicate that this check is required only when the OMS is in

operation. This remark clarifies Item 29 but does not change the frequency of the checks because we do not currently perform these instrument channel checks when the OMS is not in use.

In accordance with the requirements of 10 CFR 50.91(a), we have evaluated these changes against the standards in 10 CFR 50.92 and have determined that the operation of the Point Beach Nuclear Plant units in accordance with the proposed amendments does not present a significant hazards consideration. A proposed amendment involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety.

In regards to Specification 15.3.1.A.5, "Pressurizer Power-Operated Relief Valve (PORV) and PORV Block Valves," the proposed change requires no physical change to the facility or its systems, but it does require changes to operating procedures. The proposed changes to Technical Specifications specify electrical power supply requirements to PORVs and block valves while they are inoperable. These changes minimize the potential for the loss of reactor coolant through a PORV or block valve when either is inoperable. The changes also provide operators the procedural flexibility to be able to relieve excessive reactor coolant system pressure when these valves are inoperable. These changes have been made in accordance with the guidance in GL 90-06.

Because the PORV system is not being physically changed, previously analyzed accidents are not adversely affected. Similarly, an increased probability or consequences of an accident previously evaluated cannot result. Because the proposed changes do not alter the function of existing systems, but do enhance the reliability of those systems, a new or different kind of accident from any previously evaluated cannot result.

Specification 15.3.0, "Limiting Conditions of Operation," requires us to place the plant in the shutdown condition within three hours after discovering a situation that is not specified as a permissible condition of an LCO. Since our Technical Specifications do not currently address situations in which two PORVs or two block valves are inoperable, in both cases we are required to shut down the affected unit within three hours. For two inoperable PORVs or block valves, our proposed change allows one hour to restore the first valve; otherwise the unit must be

shut down in the following six hours. This new time limit has been established in accordance with the guidelines of GL 90-06, and it is an aggressive limit that ensures that the plant will be kept in a safe condition. The new limit extends the amount of time allowed to restore the first valve to one hour and the amount of time for plant shutdown to six hours. The extension of the time limits results because the situation was not previously addressed. The margin of safety, therefore, is at most only minimally reduced from present levels.

In regards to Table 15.4.1-2 "Minimum Frequencies for Equipment and Sampling Tests," the proposed change requires no physical change to the facility or systems, but does require changes to operating procedures. The proposed change requires that PORVs be cycled every refueling shutdown. Additionally, PORV operating solenoid air control valves and check valves on associated air systems must also be cycled each refueling shutdown. Such surveillance requirements do not increase the probability or consequences of previously evaluated accidents, and they will not create the possibility of a new or different accident. Because the actions contained in these surveillance requirements provide assurance that the PORVs can perform their function, there is actually an increase in the margin of safety by providing additional assurance that the failure of an inoperable PORV will not result in a loss of reactor coolant.

The proposal eliminates the requirement to cycle a block valve that has been shut to isolate a PORV that is inoperable for reasons other than excessive seat leakage. Opening the block valve under these conditions is prohibited by Specification 15.3.1.A.5.a.(2). Failure to cycle the block valves while in this condition will not increase the probability or consequences of previously evaluated accidents, and it will not create the possibility of any new or different accidents. If the block valves are not cycled, there may be a minimal reduction in the margin of safety because the operability of the block valves would be unknown. Conversely, maintaining the block valves in the closed position while the PORV is inoperable would result in an increase in the margin of safety.

The proposal also includes a position check of block valves when the OMS is in operation. This check is a verification of proper system lineup. It does not affect the likelihood or severity of any accidents. Since the check does not alter the function of existing systems, a new or different kind of accident from any previously evaluated cannot result, and there is no reduction in the margin of safety.

In regards to Specification 15.3.15, "Overpressure Mitigating Systems Operations," the proposed change requires no physical change to the facility or its systems, but it does require changes to operating procedures. The proposed change reduces, from 7 days to 32 hours, the time allowed to open the reactor coolant system to atmosphere, when a PORV is inoperable and when the reactor coolant temperature is ≤200°F. These are administrative changes that will put the facility in a safer condition when the PORVs are inoperable, thus reducing the likelihood of accidents. The proposed change also requires that when the reactor coolant system is open to atmosphere because of an inoperable PORV, the vent path lineup must be checked periodically. Because this check is merely a verification that the vent pathway exists, it would not affect the likelihood or severity of any accidents. Since the proposed changes do not alter the function of existing systems but do enhance the reliability of those systems, a new or different kind of accident from any previously evaluated cannot result and there is no reduction in the margin of safety. In fact, for ≤200°F the requirement to vent the reactor coolant system within 32 hours when a PORV is inoperable will increase the margin of safety.

Specification 15.3.15 currently states that the reactor coolant system must be vented to the pressurizer relief tank when the OMS is not functional. Our proposed change requires the reactor coolant system to be opened to atmosphere when the OMS is not functional. The term "open to atmosphere" is defined in the basis to include openings such as PORVs that are open to the pressurizer relief tank, open steam generator manways, and the top of the reactor vessel when the reactor vessel head has been unbolted or removed. This change was made because there are several different ways to adequately vent the reactor coolant system to atmosphere. It does not affect the likelihood or severity of any accidents, and there is no reduction in the margin of safety.

The proposed change also includes administrative wording changes pertaining to the OMS. Technical Specification 15.3.15.A.1.b has been reworded so that it is more understandable. Additionally, in Table 15.4.1-1 a remark has been added to Item 19 stating that the overpressure mitigation system instrument channel checks need be conducted only when the system is in operation. These changes have been proposed to clarify the wording of the pertinent sections. The changes do not change the meaning or intent of the specifications or current operational procedures. These changes, therefore, have no effect on existing or unevaluated accidents, and the margin of safety is not affected.

We have provided the proposed Technical Specification changes in accordance the direction of GL 90-06. Our time table for implementation of these changes is not dependent on a unit outage. Accordingly, we have not specified a date by which these license amendments should be issued. We would be pleased to answer any questions you may have concerning these changes.

Very truly yours,

C. W. Fay
Vice President
Nuclear Power

Enclosures

Copies to NRC Regional Administrator
NRC Resident Inspector

Subscribed and sworn to before me
this 30th day of May, 1991.

Notary Public, State of Wisconsin

My Commission expires 5-__ 94.

15.3.1.A.5. Pressurizer Power-Operated Relief Valves (PORV) and PORV Block Valves

a. Two PORVs and their associated block valves shall be operable.

~~(1) If a PORV is inoperable due to leakage in excess of that allowed in Specification 15.3.1.D, the PORV shall be restored to an operable condition within one hour or the associated block valve shall be closed.~~

(1) If one or both PORVs are INOPERABLE due to seat leakage in excess of that allowed in Specifications 15.3.1.D., within one hour either restore the PORVs to an operable status or close the associated block valves(s) with power maintained to the block valve(s). If these conditions cannot be met, place the unit in a HOT SHUTDOWN condition within the next six hours.

~~(2) If a PORV is inoperable due to a channel functional test failure, the associated PORV control switch shall be placed and maintained in the closed position or the associated block valve shall be closed within one hour.~~

(2) If one PORV is INOPERABLE due to causes other than excessive seat leakage, within one hour either restore the PORV to OPERABLE status or close its associated block valve and remove power from the block valve. If this condition cannot be met, place the unit in a HOT SHUTDOWN condition within the next six hours.

(3) If both PORVs are INOPERABLE due to causes other than excessive seat leakage, within one hour restore at least one PORV to OPERABLE status. If this condition cannot be met, close the associated block valves with power removed from the block valves and place the unit in a HOT SHUTDOWN condition within the next six hours.

~~(3) If a PORV block valve is inoperable, the block valve shall be restored to an operable condition within one hour or the block valve shall be closed with power removed from the block valve; otherwise, the unit shall be in shutdown within the next six hours.~~

(4) If one block valve is inoperable, within one hour either restore the block valve(s) to OPERABLE status or place the associated PORV in manual

control. If this condition cannot be met, place the unit in a HOT SHUTDOWN condition within the next six hours.

(5) If both block valves are inoperable, restore at least one block valve to OPERABLE status within one hour. If this condition cannot be met, place the associated PORVs in manual control and place the unit in a HOT SHUTDOWN condition within the next six hours.

BASIS

A PORV is defined as OPERABLE if leakage past the valve is less than that allowed in Specification 15.3.1.D and the ~~PORV has met its most recent channel test as specified in Table 15.4.1-1. The PORVs operate to relieve, in a controlled manner, reactor coolant system pressure increases below the setting of the pressurizer safety valves. These PORVs have remotely operated block valves to provide a positive shutoff capability should a PORV become inoperable.~~ most recent associated channel test, as specified in Table 15.4.1-1, is acceptable. Additionally, the PORV must have the capability of operating manually to relieve reactor coolant system coolant pressure increases.

A block valve is defined as OPERABLE if the valve can operate manually and if it can control identified PORV leakage.

When a PORV is INOPERABLE due to excessive seat leakage, the block valve is shut with power maintained to the block valve so that the block valve(s) is readily available and may be used to allow the PORV to control reactor pressure. Excessive primary system leakage is defined in specification 15.3.1.D. The block valve may remain shut to isolate the leaking PORV for a limited period of time not to exceed the next refueling shutdown. When a PORV is INOPERABLE for reasons other than excessive seat leakage, the block valve is shut with power removed; this precludes any inadvertent opening of the block valve.

When a block valve is INOPERABLE, the associated PORV is placed in manual control; this precludes the undesired automatic opening of the PORV.

15.3.15 OVERPRESSURE MITIGATING SYSTEM OPERATIONS

Applicability

Applies to operability of the overpressure mitigating system when the reactor coolant system temperature is less than the minimum temperature for the inservice pressure test.

Objective

To specify functional requirements and limiting conditions for operation on the use of the pressurizer power operated relief valves when used as part of the overpressure mitigating system and to specify further limiting conditions for operation when the reactor coolant system is operated without a pressure absorbing volume in the pressurizer.

Specification

A. System Operability

1. Except as specified in 15.3.15.A.2 below, the overpressurization mitigating system shall be operable whenever the reactor coolant system is not open to the atmosphere and the temperature is less than the minimum pressurization temperature for the inservice pressure test, as specified in Figure 15.3.1-1. Operability requirements are:
   a. Both pressurizer power operated relief valves operable at a setpoint of ≤425 psig.
   ~~b. The upstream isolation valves to both power operated relief valves are open.~~

~~2. The requirements of 15.3.15.A.1 may be modified to allow one of the two power operated relief valves to be inoperable for a period of not more than seven days.~~

~~3. If the inoperable power operated relief valves cannot be made operable within seven days, the reactor coolant system must be depressurized and vented to the pressurizer relief tank within eight hours.~~

   b. Both power operated relief valve block valves are open.

2. The requirements of 15.3.15.A.1 may be modified as specified below:
   a. With one PORV inoperable while reactor coolant system temperature is >200°F but less than the minimum pressurization temperature for the inservice pressure test, either restore the inoperable PORV to operable status within 7 days, or depressurize reactor coolant system to atmosphere within the next 8 hours.
   b. With one PORV inoperable while reactor coolant system temperature is ≤200°F, either restore the inoperable PORV to operable status within 24 hours, or depressurize the reactor coolant system to the atmosphere within a total of 32 hours.

~~4. If both power operated relief valves are inoperable, the reactor coolant system must be depressurized and vented to the pressurizer relief tank within eight hours.~~

   c. With both power operated relief valves inoperable

while the reactor coolant system temperature is less than the minimum pressurization temperature for the inservice pressure test, the reactor coolant system must be depressurized and opened to the atmosphere within 8 hours.

3. If the reactor coolant system is open to atmosphere per Specification 15.3.15.A.2.a, b, or c, the atmosphere pathway must be verified at least once every 31 days when it is provided by a non-isolable atmosphere pathway or by a valve(s) that is locked, sealed , or otherwise secured in the open position; otherwise, verify the atmosphere pathway every 12 hours.

B. Additional Limitations

1. When the reactor coolant system is not open to the atmosphere and the temperature of one or both reactor coolant system cold legs is $\leq$275°F, no more than one high pressure safety injection pump shall be operable. The second high pressure safety injection pump shall be demonstrated inoperable whenever the temperature of one or both reactor coolant system cold legs is $\leq$275°F by verifying that the motor circuit breakers have been removed from their electrical power supply circuits or by verifying that the discharge valves from the high pressure safety injection pumps to the reactor coolant system are shut and that power is removed from their operators.
2. A reactor coolant pump shall not be started when the reactor coolant system temperature is less than the minimum temperature for the inservice pressure test unless:
   a. There is a pressure absorbing volume in the pressurizer or in the steam generator tubes or
   b. The secondary water temperature of each steam generator is less than 50°F above the temperature of the reactor coolant system.

Basis The Overpressurization Mitigating System consists of a diverse means of relieving pressure during periods of water solid operation and when the system temperature is below the value permitted to perform the primary system leak test. This method of water relief utilizes the pressurizer power operated relief valves (PORV's). The PORV's are made operational for low pressure relief by utilizing a dual set-point where the low pressure circuit is energized and de-energized by the operator with a keylock switch depending on plant conditions. The logic required for the low pressure setpoint is in addition to the existing PORV actuation logic and will not interfere with existing automatic or manual actuation of the PORV's. The OPERABILITY of the PORVs is determined on the basis of their being capable of automatically mitigating an overpressure event during low temperature operation.

During plant cooldown prior to reducing reactor coolant system temperature below the minimum temperature allowable for the inservice pressure test, the operator under administrative procedures shall place the keylock switch in the "Low Pressure" position. This action enables the Overpressure Mitigating System. The redundant PORV channels shall remain enabled and operable while ~~the reactor coolant system is not open to the atmosphere and the temperature is less than the minimum pressurization temperature for the inservice pressure test, except that one PORV may be out of service for a period of up to seven days,~~ the Overpressure Mitigation System is required to be in operation.

The reactor coolant system is defined as open to the atmosphere if there is an opening in the reactor coolant system pressure boundary that will relieve system pressure. Some examples of such openings include PORVs that are open to the pressurizer relief tank, open steam generator manways, and the top of the reactor vessel when the reactor vessel head has been unbolted or removed.

The mass input transient used to determine the PORV setpoint assumed a worse case transient of a single high pressure safety injection pump discharging to the reactor coolant system while the system is solid. Therefore, when the reactor coolant system is less than 275°F, only one high pressure safety injection pump shall be operable at any time except when the reactor coolant system is open to the atmosphere.

The heat input transient used to determine the PORV setpoint assumes a temperature difference between the reactor coolant system and the steam generator of 50°F. Therefore, before starting a reactor coolant pump when the reactor coolant system is solid, the operator shall insure that the secondary temperature of each steam generator is less than 50°F above the temperature of the reactor coolant system unless a pressure absorbing volume has been verified to exist in the pressurizer or steam generator tubes.