

flexibility and increased thermal margin provided with this design.

The redundant cooling capacity of the SW and SRW Systems have not been altered. Furthermore, the proposed activity will not change, degrade, or prevent actions described or assumed in any accident described in the UFSAR. The proposed activity will not alter any assumptions previously made in evaluating the radiological consequences of any accident described in the UFSAR. Therefore, the consequences of an accident previously evaluated in the UFSAR have not increased.

Therefore, the proposed modification does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Would not create the possibility of a new or different type of accident from any accident previously evaluated.

The proposed activity involves modifying the SW and SRW System components necessary to support the installation of new SRW heat exchangers. None of the systems associated with this modification are identified as accident initiators in the UFSAR. The SW and SRW Systems are used to mitigate the effects of accidents analyzed in the UFSAR. None of the functions required of the SRW or SW System have been changed by this modification. This activity does not modify any system, structure, or component such that it could become accident initiator, as opposed to its current role as an accident mitigator.

Therefore, the proposed change does not create the possibility of a new or different type of accident from any accident previously evaluated.

3. Would not involve a significant reduction in a margin of safety.

The Safety design basis for the SW and SRW System is the availability of sufficient cooling capacity to ensure continued operation of equipment during normal and accident conditions. The redundant cooling capacity of these systems, assuming a single failure, is consistent with assumptions used in the accident analysis.

The design, procurement, installation, and testing of the equipment associated with the proposed modification are consistent with the applicable codes and standards governing the original systems, structures, and components. The design of instruments and associated cabling ensures that physical and electrical separation of the two subsystems is maintained. Common-mode failure is not introduced by the activity. The equipment is qualified for the service conditions stipulated for that environment. New cable and raceways for this design will be installed in accordance with seismic design requirements. The additional electrical load has been reviewed to ensure the load limits for the vital 1E buses are not exceeded. The circuits and components related to the control valves control loops are safety-related, are similar to those used for the other safety-related flow control functions. The proposed modification will not have any adverse effects on the safety-related functions of the SW and SRW Systems.

For the above reasons, the existing licensing bases have not been altered by the

proposed modification. This activity will not reduce the margin of safety as it exists now. In fact, the margin of safety has been increased by this activity due to the increase in the thermal capacity of the dual train design (i.e., two heat exchangers per train versus one heat exchanger per train of the original design) and the increased availability of safety-related components.

Therefore, this proposed modification does not significantly reduce the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Local Public Document Room location:* Calvert County Library, Prince Frederick, Maryland 20678.

*Attorney for licensee:* Jay E. Silberg, Esquire, Shaw, Pittman, Potts and Trowbridge, 2300 N Street, NW., Washington, DC 20037.

*NRC Project Director:* S. Singh Bajwa, Director.

*Duquesne Light Company, et al., Docket Nos. 50-334 and 50-412, Beaver Valley Power Station, Unit Nos. 1 and 2, Shippingport, Pennsylvania*

*Date of amendment request:* July 13, 1998.

*Description of amendment request:* The proposed amendments would revise the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and BVPS-2) Updated Final Safety Analysis Report (UFSAR) descriptions of the Intake Structure main entrance and interconnecting cubicle doors. The current UFSAR descriptions state that the cubicle access doors are open to permit excess water from a major pipe rupture to flow out of the cubicles thereby avoiding internal flooding. The proposed changes would address a new failure mode of safety-related equipment that had not been previously considered for BVPS-1. The proposed changes would state that the cubicle interconnecting flood protection doors are normally closed with their inflatable seals depressurized and that the associated security/fire doors are normally closed. The proposed door closure arrangement is intended to protect the safety-related equipment in the interconnecting cubicles from the consequences of potential internal flooding.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed change revises the text of the UFSAR for Unit 1 and Unit 2 to describe how protection is provided against potential internal floods in the cubicles that house the Unit 1 River Water and Unit 2 Service Water Pumps. The previous description concluded that the Unit 1 River Water pumps were protected because open cubicle access doors will permit excess water to flow out of the cubicles. The practice that has changed, and is described in the proposed revisions to the Unit 1 and Unit 2 UFSARs, will provide protection of the Unit 1 River Water Pumps and the Unit 2 Service Water Pumps so that no flooding event can adversely affect more than one Unit 1 or Unit 2 pump. Therefore, it can be concluded that the proposed changes do not involve any increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The effect of flooding the pump cubicles was considered in BVPS-1 to have no adverse effect because open cubicle access doors would permit excess water to flow out of the cubicles, and pipe cracks in moderate energy piping was not part of the design basis. Revising the door arrangement described in the BVPS-1 UFSAR such that the security/fire doors are normally closed, requires that the effects of flooding be considered. Engineering analysis shows that a moderate energy pipe crack, (i.e., the BVPS-2 design basis internal flood), produces a leak rate of 1162 gpm, which results in a maximum water level of 0.82 feet, with the security/fire doors closed. The water level in the adjacent cubicle would reach a level at 0.37 feet. This is below the level which would cause failures of the MCCs [Motor Control Centers] in the pump cubicles.

The maximum leak rate from a failure of a Unit 1 rubber expansion joint in a pump cubicle would result in water rising to a level which would cause the MCCs to be flooded and fail; therefore, maintaining the flood door between the adjacent cubicles closed limits the impact to a single train.

Failure of a single train of River Water is analyzed in the USAR; therefore, this change would not introduce a new or different type of accident.

3. Does the change involve a significant reduction in a margin of safety?

The proposed change in the Unit 1 and Unit 2 UFSARs describes how protection is provided for the Unit 1 River Water, and the Unit 2 Service Water pumps. Protection of the Unit 1 River Water Pumps and the Unit 2 Service Water pumps is provided so that no flooding event can adversely affect more than one Unit 1 or Unit 2 pump. Therefore, it can be concluded that the proposed changes do not involve any reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are

satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Local Public Document Room location:* B.F. Jones Memorial Library, 663 Franklin Avenue, Aliquippa, PA 15001.

*Attorney for licensee:* Jay E. Silberg, Esquire, Shaw, Pittman, Potts & Trowbridge, 2300 N Street, NW., Washington, DC 20037.

*NRC Project Director:* Robert A. Capra.

*Duquesne Light Company, et al., Docket Nos. 50-334 and 50-412, Beaver Valley Power Station, Unit Nos. 1 and 2, Shippingport, Pennsylvania*

*Date of amendment request:* July 9, 1998.

*Description of amendment request:* The proposed amendment would revise Technical Specification (TS) 3/4.7.1.1 and associated Bases for both units. TS 3.7.1.1 currently provides requirements for reducing the power range high neutron flux trip setpoint when one or more main steam safety valves are inoperable. The current basis for determining the amount of trip setpoint reduction has been determined to be non-conservative. The proposed amendment would specify maximum allowable reactor power level based on the number of operable main steam safety valves rather than requiring a reduction in reactor trip setpoint. This change would be consistent with the NRC staff's guidance provided in the NRC's improved Standard Technical Specifications for Westinghouse plants (NUREG-1431, Revision 1). The maximum allowable reactor power level with inoperable safety valves would be calculated based on the recommendations of Westinghouse Nuclear Safety Advisory Letter (NSAL) 94-01. The proposed change to the Unit 1 TS 3.7.1.1 would also delete reference to 2 loop operation since 2 loop operation is not a licensed condition for either unit.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed change will generally incorporate the Improved Standard Technical Specification (ISTS) main steam safety valve (MSSV) requirements of NUREG-1431 into Specification 3.7.1.1 and associated Bases. The Unit 1 specification currently includes reference to 2 loop operating requirements in

Action "b" and Table 3.7-2. Reference to 2 loop operation is being deleted since it is not addressed in the ISTS and is not a licensed condition for these plants. The limiting condition for operation has been modified to incorporate the ISTS wording and requires MSSV operability in accordance with Tables 3.7-1 and 3.7-2. Table 3.7-1 lists the maximum allowable power level as a function of the number of operable MSSVs per steam generator and continues to require a minimum of 2 operable MSSVs per steam generator for continued plant operation. Table 3.7-2 specifies the MSSV lift setting and tolerance for each MSSV. The valve lift setting remains unchanged along with the current tolerance of +1 percent - 3 percent. The Applicability statement has not been changed since it is consistent with the ISTS requirements.

Proposed Action "a" applies with one or more inoperable MSSVs and requires that within 4 hours power must be reduced in accordance with the value specified in Table 3.7-1; otherwise, shut down. This action satisfies the same goal as the current action by restricting thermal power so that the energy transfer to the most limiting steam generator is not greater than the available relief capacity for that steam generator. Proposed Action "b" incorporates additional conservatism by specifically requiring at least 2 operable MSSVs per steam generator. This ensures that a minimum overpressure protection is available during all applicable modes of operation. Proposed Action "c" provides an exception to Specification 3.0.4 which does not allow entry into a mode where the Limiting Condition for Operation (LCO) is not met and actions require a shutdown. This exception is not addressed in the ISTS requirements; however, an exception to Specification 3.0.4 allows entry into a mode where the LCO applies in conformance with the action statements.

Proposed Surveillance Requirement 4.7.1.1 requires verification of the lift setpoint for each MSSV listed in Table 3.7-2 in accordance with the Inservice Test Program. Note (1) is applied to Surveillance Requirement 4.7.1.1 to provide clarification of the testing requirements, such that this testing is required only in Modes 1 and 2 so that the plant can enter Modes 2 and 3 where this specification applies without first performing the test. A note (2) has been applied to the lift setting in Table 3.7-2 that requires a setting corresponding to the ambient conditions of the valve at the nominal operating temperature and pressure. The ISTS does not include this note but it has been included for consistency with the current note and provides a clear reminder to test personnel of the required test conditions.

The safety valve Bases have been revised to generally incorporate the ISTS Bases which significantly improve the content and understanding of the MSSV requirements. These changes are consistent with the UFSAR [Updated Final Safety Analysis Report] design description and analysis assumptions where the MSSVs provide the required overpressure protection. The proposed changes are consistent with the regulations and provide additional assurance that the secondary side pressure remains

within the bounds of the safety analyses; therefore, the proposed changes will not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed changes generally incorporate the ISTS MSSV requirements to ensure adequate secondary side overpressure protection is available and properly maintained. The revised Limiting Condition for Operation (LCO) limits plant power level based on the number of operable MSSVs as stated in Table 3.7-1 and provides the valve lift settings and tolerances as shown in Table 3.7-2. The actions require a reduction in power when the number of valves is less than the full complement for each steam generator and also require at least 2 operable MSSVs per steam generator. When these requirements cannot be met a plant shutdown is required. An action also provides an exception to Specification 3.0.4 and is consistent with the exception currently provided. These actions are more conservative than the current requirements and provide additional assurance that Specification 3.7.1.1 will continue to govern the MSSV limitations in a manner consistent with the accident analyses assumptions. The revised surveillance requirement provides clearly understandable testing requirements to ensure the MSSVs are adequately monitored and will perform in accordance with the accident analysis assumptions. The proposed change does not introduce any new mode of operation or require any physical modification to the plant; therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

The MSSVs ensure the ASME [American Society of Mechanical Engineers] Code, Section III requirements are maintained to limit the secondary system pressure to within 110 percent of the design pressure when passing the design steam flow. This ensures that the overpressure protection system can cope with all operational and transient events. Operation with less than the full number of MSSVs is permitted as long as thermal power is restricted to meet the ASME Code requirements. This limitation is provided in the proposed technical specifications along with operability and surveillance requirements to ensure the level of overpressure protection is maintained. MSSV operability is defined as the ability to open within the setpoint tolerances, relieve steam generator overpressure, and reset when pressure has been reduced. MSSV operability is determined by surveillance testing in accordance with the Inservice Test program which provides assurance that the MSSVs will perform their designed safety functions to mitigate the consequences of accidents that could result in a challenge to the reactor coolant pressure boundary. The proposed change continues to ensure that the required components are properly maintained and that the assumed parameters are verified during the applicable conditions