

Attachment A

Technical Specification  
Page Revisions

Consolidated Edison Company of New York, Inc.  
Indian Point Unit No. 2  
Docket No. 50-247  
September 23, 1988

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#### 4.18 OVERPRESSURE PROTECTION SYSTEM

##### Applicability

This specification applies to the surveillance requirements for the OPS provided for prevention of RCS overpressurization.

##### Objective

To verify the operability of OPS.

##### Specifications

- A. When the OPS PORVs are being used for overpressure protection as required by Specification 3.1.A.4, their associated series MOVs shall be verified to be open at least twice weekly with a maximum time between checks of 5 days.
- B. When RCS venting is being used for overpressure protection as permitted by Specification 3.1.A.4, the vent(s) shall be verified to be open at least daily. When the venting pathway is provided with a valve which is locked, sealed, or otherwise secured in the open position, then only these valves need be verified to be open at monthly intervals.
- C. When pressurizer pressure and level control is being used for overpressure protection, as permitted by Specification 3.1.A.4, then these parameters shall be verified to be within their limits at least once per shift.
- D. When safety injection pumps and/or charging pumps are required to be de-energized per Specification 3.1.A.4, the pumps shall be demonstrated to be inoperable at monthly intervals by verifying lockout of the pump circuit breakers at the 480 volt switchgear, or once per shift if other means of de-energizing the pumps are used.
- E. The PORV backup nitrogen system shall be demonstrated to be operable at refueling surveillance intervals.

##### Basis

These specifications establish the surveillance program for the Overpressure Protection System (OPS). This surveillance program is intended to verify

the operability of the system and will identify for corrective action any conditions which could prevent any portion of the system from performing its intended function.

The PORVs and MOVs associated with the OPS are not included in this specification since the valve cycling and operability tests for these valves are performed in accordance with applicable testing requirements of the ASME Code Section XI and 10 CFR 50.55a.

Attachment B  
Safety Assessment

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The proposed Technical Specification revisions in Attachment A would provide a surveillance requirement to assure the operability of the backup nitrogen supply to the pressurizer PORVs. The PORVs are used to mitigate a reactor coolant system (RCS) overpressure event when RCS temperature is below 295 degrees F and thus may be subject to brittle fracture. Nitrogen is required to open the PORVs.

The backup nitrogen supply is provided to assure that sufficient nitrogen is available to cycle each PORV 200 times assuming failure of the normal nitrogen supply. A separate backup nitrogen supply is provided for each PORV. One PORV cycling 200 times is sufficient to mitigate the consequences of the worst case design basis overpressure event.

The normal nitrogen supply is of high quality but does not meet all the requirements of a safety grade system. It is required for many aspects of normal plant power operation, startup and shutdown. As a result, the system is kept continuously pressurized by a substantial nitrogen supply that is maintained by routine nitrogen deliveries to the site.

Because the normal system is constantly pressurized the backup system will stay pressurized even if it leaks so a lack of system integrity would not be readily apparent. Also, its capability to isolate itself (via check valves) from the normal supply system in the event that system loses pressure is not demonstrated in normal operation. As a result, periodic surveillance is required to assure the operability of the backup nitrogen supply system.

The ability of the PORV to cycle need not be demonstrated by this surveillance since the PORV is tested under the ASME Section XI Section IWV test program.

The surveillance would be performed only when plant conditions are such that operability of the PORVs is not required for low temperature overpressure protection (LTOP). LTOP is the only safety related active function for the PORVs, as analyses of all other overpressure events do not credit operation of the PORVs. As such, the surveillance will not increase the probability of a small LOCA through spurious operation of the PORVs.

The frequency will be at refueling intervals consistent with surveillance of all other safety systems.

## Basis For No Significant Hazards Consideration Determination

The intent of the proposed change to Technical Specification 4.18 is to enhance plant safety by demonstrating the operability of the backup nitrogen supply system that is necessary to assure functioning of the low temperature overpressure protection system. Such testing is required per 10CFR50.36(c)(1)(ii)(B)(3). The proposed surveillance is similar in scope and interval to those provided for other safety systems in the Indian Point 2 and Standard Technical Specifications.

The proposed Technical Specification change is similar to one of the examples given in 51 FR 7751 that are considered not likely to involve significant hazards considerations, specifically:

"(ii) A change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications; for example, a more stringent surveillance requirement."

The proposed change is "a more stringent surveillance requirement" in that surveillance of a safety system that was not being demonstrated to be operable before will now be accomplished. The requirements of 10 CFR50.92(c) regarding no significant hazards consideration are addressed below:

- (1) Would not involve a significant increase of the probability or consequence of an accident previously evaluated:

The surveillance does not involve actions that could cause a spurious opening of the PORVs. As such it will not increase the probability of initiation of the small-break LOCAs previously analyzed. The test will be performed only under conditions where operation of the PORVs is not a required safety function. As such it will not increase the consequences of the low temperature overpressure events previously evaluated. All other accidents do not credit operation of the PORVs in the analysis of consequences. Furthermore, the surveillance will provide periodic demonstrated assurance as to the operability of the backup nitrogen supply system prior to useage. This will lead to a decrease in the probability of any postulated accident involving the PORVs.

As a result, it can be concluded that a decrease in the probability of an accident event will be achieved and there will be no change in the consequences of an accident previously evaluated.

- (2) Will not create the possibility of a new or different kind of accident from any accident previously evaluated.

There has been no change in system configuration or system function. Only added assurance has been provided to demonstrate that the back-up nitrogen system will perform as required if challenged. Under these circumstances it can only be concluded that additional confidence has been obtained that the original accident scenarios remain unchanged. There would now exist less probability of an expanded accident scope due to the failure of the back-up nitrogen system to function. Accordingly the possibility of a new or different kind of accident has diminished.

The imposition of an additional test does not create the possibility of a new or a different kind of accident. The test is performed when the PORVs are not required for a safety function. Adequate time exists for the nitrogen system to be restored to operable status should a failure occur prior to its need as a safety system.

Thus it can be conservatively concluded that the surveillance test will not create the possibility of a new or different kind of accident from any accident previously indicated.

(3) Will not involve a significant reduction in a margin of safety.

The proposed change fully meets the criteria of 51 FR 7751. It represents an additional limitation which can only serve to enhance the availability of the nitrogen backup system during the time it is required to perform its safety function. In recognition of the discussions in 1 and 2 above, the only reasonable conclusion can be that an increase in the margin of safety has been accomplished by this change.

Therefore, based on the above, we concluded that the proposed changes do not constitute a significant hazards consideration as defined under 10 CFR 50.92(c).

The proposed changes have been reviewed by the Station Nuclear Safety Committee and the Consolidated Edison Nuclear Facility Safety Committee. Both committees concur that these changes do not represent a significant hazards consideration.