



August 6, 1999

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D C 20555

LaSalle County Station, Units 1 and 2  
Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374

Subject: Request for a Change to the Technical Specifications, "Vacuum Relief System"

In accordance with 10 CFR 50.90, Commonwealth Edison (ComEd) Company requests a change to Appendix A, Technical Specifications (TS), Facility Operating Licenses NPF-11 and NPF-18. The proposed change is to the TS Section 3/4.6.4, "Vacuum Relief System." This proposed change is consistent with the Improved Standard Technical Specifications (ISTS) as documented in NUREG-1433, Revision 1, "Standard Technical Specifications, General Electric Plants, BWR/4."

The proposed change is subdivided as follows.

1. Attachment A gives a description and safety analysis of the proposed changes.
2. Attachment B includes the marked-up Technical Specification pages with the proposed changes indicated.
3. Attachment C describes ComEd's evaluation performed in accordance with 10 CFR 50.92(c), which supports a finding of no significant hazards consideration.
4. Attachment D provides information supporting an Environmental Assessment.

We are requesting that the proposed changes, if found acceptable, be approved within six months.

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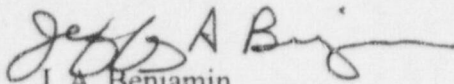
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The proposed changes have been reviewed by the station Plant Operations Review Committee and approved by the Nuclear Safety Review Board in accordance with station procedures.

ComEd is notifying the State of Illinois of this request for amendment by transmitting a copy of this letter and its attachments to the designated State Official.

If there are any questions or comments concerning this letter, please refer them to Mr. Frank Spangenberg, Regulatory Assurance Manager, at (815) 357-6761, extension 2383.

Sincerely,



J. A. Benjamin  
Site Vice President  
LaSalle County Station

Attachments:   A. Description and Safety Analysis for Proposed Changes  
                  B. Marked-up Pages for Proposed Changes  
                  C. Information Supporting a Significant Hazards Consideration  
                  D. Information Supporting an Environmental Assessment

cc:   Regional Administrator – NRC Region III  
      NRC Senior Resident Inspector – LaSalle County Station  
      Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety

STATE OF ILLINOIS

Docket Nos. 50-373  
50-374

IN THE MATTER OF:

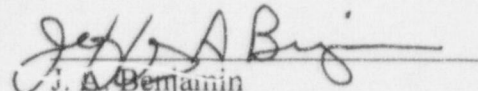
COMMONWEALTH EDISON (COMED) COMPANY

LASALLE COUNTY STATION - UNITS 1 and 2

SUBJECT: Request for a Change to the Technical Specifications, "Vacuum Relief System"

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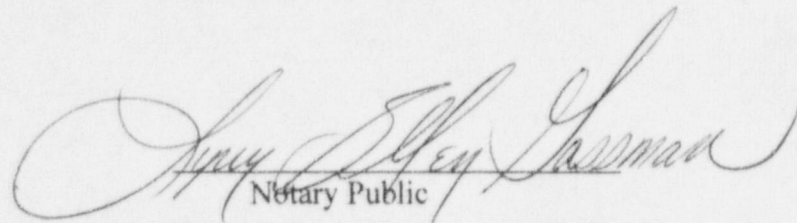
I affirm that the content of this transmittal is true and correct to the best of my knowledge, information and belief.

  
J. A. Benjamin  
Site Vice President  
LaSalle Station

Subscribed and sworn to before me, a Notary Public in and

for the State above named, this 6th day of

August, 1999

  
Notary Public



ATTACHMENT A  
Proposed Changes to Technical Specifications for  
LaSalle County Station, Units 1 and 2  
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**DESCRIPTION AND SUMMARY SAFETY ANALYSIS  
FOR PROPOSED CHANGES**

**A. SUMMARY OF PROPOSED CHANGES**

In accordance with 10 CFR 50.90, Commonwealth Edison (ComEd) Company is proposing changes to Appendix A, Technical Specifications (TS), Facility Operating License Nos. NPF-11 and NFP-18. The proposed changes are to TS Section 3/4.6.4, "Vacuum Relief," to remove specific operability requirements related to position indication for the suppression chamber-drywell vacuum breakers and revise the action statements and the surveillance requirements to reflect the requirements in NUREG-1433, Revision 1, "Standard Technical Specifications, General Electric Plants."

The proposed changes are described in Section E of this Attachment. The marked up TS pages are shown in Attachment B.

**B. DESCRIPTION OF THE CURRENT REQUIREMENTS**

TS Section 3/4.6.4, "Vacuum Relief," requires that all suppression chamber-drywell vacuum breakers be operable and closed. This requirement is applicable in operational conditions 1, 2 and 3 (i.e., Power Operation, Startup, and Hot Shutdown). The suppression chamber-drywell vacuum breakers are verified closed at least once per 7 days. The suppression chamber-drywell vacuum breakers are demonstrated operable by performing the following surveillance tests.

- Cycling each suppression chamber-drywell vacuum breaker through at least one complete cycle of full travel at least once per 31 days.
- Performing a channel functional test on both position indications at least once per 31 days.
- Verifying the force required to open the suppression chamber-drywell vacuum breakers from the closed position is less than or equal to 0.5 psid once per 18 months.
- Performing a channel calibration on both position indications at least once per 18 months.

If one suppression chamber-drywell vacuum breaker is found inoperable and/or open, the manual isolation valves on both sides of the inoperable and/or open suppression chamber-drywell vacuum breaker shall be closed within four (4) hours. The inoperable and/or open suppression chamber-drywell vacuum breaker must be restored to operable status and be closed within 72 hours. If the suppression chamber-drywell vacuum breaker can not be restored to operable status within this time limit the unit must be in Hot Standby within 12 hours and in Cold Shutdown within the following 24 hours. This places the unit in a mode in which the Limiting Condition for Operation no longer applies.

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A surveillance requirement is provided to ensure that the manual isolation valves on both sides of an inoperable and/or open suppression chamber-drywell vacuum breaker is verified closed at least once per 7 days.

In addition, if one position indication of any operable suppression chamber-drywell vacuum breaker is found inoperable, the inoperable position indication must be restored to operable status within 14 days or a visual verification demonstrating that the suppression chamber-drywell vacuum breaker is closed must be performed at least once every 24 hours. If these actions cannot be completed the affected suppression chamber-drywell vacuum breaker must be declared inoperable and the actions related to an inoperable suppression chamber-drywell vacuum breaker be performed.

### **C. BASES FOR THE CURRENT REQUIREMENTS**

The Containment Vacuum Relief System (CVRS) consists of four (4) suppression chamber-drywell vacuum breakers. These vacuum breakers are provided between the primary containment drywell and suppression chamber, to prevent exceeding the upward drywell floor design pressure differential of 5 psid. The vacuum breakers are in piping that is outside of primary containment but form an extension of the primary containment boundary. Two local manual butterfly valves, one on each side of the vacuum breaker are provided as system isolation valves should failure of the vacuum breaker occur.

Analyses were performed on a number of postulated loss of coolant accident events that show that the CVRS will provide sufficient relief capacity so that neither the design drywell floor upward differential pressure of 5 psid, nor the design drywell wall inward differential pressure of 5 psid will be exceeded. In the normal operating configuration of the CVRS, four vacuum breakers are available; however the analyses assumed failure of one vacuum breaker. Accordingly, the analyses show that a minimum of three containment vacuum breakers are necessary to ensure that the design differential pressures will not be exceeded. The worst case results show that with three vacuum breakers the maximum upward transient differential pressure across the drywell floor is less than 5.0 psid. These calculations also show that the maximum inward differential pressure across the drywell walls does not exceed 5.0 psid.

The vacuum breakers between the suppression chamber and the drywell must not be inoperable in the open position since this would allow bypassing of the suppression pool in case of an accident. The purpose of the manual isolation valves is to minimize the bypass leakage in the event of a vacuum breaker being inoperable in the open position.

### **D. NEED FOR REVISION OF THE REQUIREMENT**

Currently, one of the two position indications for the "2A" suppression chamber-drywell vacuum breaker is inoperable. If the second position indication becomes inoperable under the current TS requirements, the "2A" suppression chamber-drywell vacuum breaker must be declared inoperable. The "2A" suppression chamber-drywell vacuum breaker would then

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be required to be isolated by closing both of the manual isolation valves and be restored to operable status (i.e., restore the position indication) within 72 hours. If the "2A" suppression chamber-drywell vacuum breaker cannot be restored to operable status by restoring the position indication within the required time the unit must be in Hot Shutdown within 12 hours and in Cold Shutdown within the following 24 hours. Accordingly, the unit would be required to shutdown even though the affected suppression chamber-drywell vacuum breaker would still be functional in that it is capable of performing its relief function, as demonstrated by the periodic cycling surveillance requirement. The affected suppression chamber-drywell vacuum breaker could still be verified closed by alternate methods, providing assurance that the requirement to control bypass leakage can still be maintained within assumed values.

Therefore current TS actions would require unit shutdown when capability exists to verify that the design functions of the suppression chamber-drywell vacuum breaker can still be achieved.

**E. DESCRIPTION OF THE PROPOSED CHANGES**

TS Section 3/4.6.4, "Vacuum Relief," will be revised to reflect the proposed changes that will bring it into conformance with NUREG-1433, Revision 1. The proposed changes are as follows.

1. Modify TS Limiting Condition for Operation (LCO) Action 3.6.4 to read "All suppression chamber - drywell vacuum breakers shall be OPERABLE."
2. The LCO Action related to the inoperable position indication will be deleted, since specific indication-only equipment is not required to be operable as a condition of system or component operability in Improved Standard Technical Specifications.
3. TS Surveillance Requirements (SRs) 4.6.4.1.b.2 and 4.6.4.1.b.3.b related to demonstrating operability of the suppression chamber-drywell vacuum breaker position indications will be deleted.
4. TS SR 4.6.4.2 verifying the closure of the manual isolation valves of an inoperable suppression chamber-drywell vacuum breaker will be deleted.
5. The current LCO Action related to an inoperable and/or open vacuum breaker will be rewritten into two separate LCO Actions. The first LCO Action will deal with the case of an inoperable suppression chamber-drywell vacuum breaker not capable of opening. This action will not require isolation of the vacuum breaker since the vacuum breaker would already be closed. The vacuum breaker will be required to be restored to operable status within 72 hours.

A second LCO Action will be added, providing the actions necessary to address an open suppression chamber-drywell vacuum breaker. This will require the affected vacuum breaker to be isolated within 4 hours, and restored to operable status within 72 hours.

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Both of these proposed LCO Actions will require the unit be in Hot Shutdown within 12 hours and be in Cold Shutdown in the following 24 hours if the restoration actions can not be completed in the allowed outage time.

6. The frequency of TS SR 4.6.4.1.a will be changed from seven days to 14 days. In addition a note will be added that states the SR is not required to be met for suppression chamber-drywell vacuum breakers that are open during Surveillances or when suppression chamber-drywell vacuum breakers are performing the pressure relief function during both normal and off-normal plant operations.

#### F. SAFETY ANALYSIS OF THE PROPOSED CHANGES

Deletion of the condition requiring the vacuum breakers to be closed, as outlined in change item 1, is proposed since it is redundant to the definition of operable as defined by the proposed SRs. The SRs define an operable vacuum breaker as being closed, with noted exceptions, capable of opening as demonstrated by periodic cycling, and capable of being opened within established setpoints as demonstrated by periodic testing.

Deletion of suppression chamber-drywell vacuum breaker position indication requirements, provided in change items 2 and 3 is proposed since this instrumentation does not necessarily relate directly to the respective system operability. NUREG-1433, Revision 1, does not specify indication-only equipment to be operable to support operability of a system or component. Control of the availability of, and necessary compensatory activities if not available, for indications and monitoring instruments are addressed by plant operational procedures and policies. Suppression chamber-drywell vacuum breaker position is required to be known to meet operability requirements defined by the surveillance requirements. If position indication is not available and vacuum breaker position can not be determined, then the surveillance requirements cannot be satisfied and the appropriate actions must be taken for inoperable vacuum breakers. As a result, the requirements for the suppression chamber-drywell vacuum breaker are adequately addressed by the requirements of proposed TS 3/4.6.4 and its associated surveillance requirements and the specific indication operability requirements are proposed to be deleted from TS 3/4.6.4.

Deletion of SR 4.6.4.2, outlined as change item 4, is proposed since this SR serves no purpose. It requires that the manual isolation valves closed to isolate an inoperable suppression chamber-drywell vacuum breaker be verified closed every 7 days. The actions for both an inoperable and/or open suppression chamber-drywell vacuum breaker require restoration within 72 hours, or the unit is to be placed in Hot Shutdown within 12 hours and in Cold Shutdown within the following 24 hours. Therefore this SR would never be required to be performed, and this proposed change is the deletion of an unnecessary SR.

The restructuring of the current LCO Action as outlined in change item 5, into two separate LCO Actions is provided for clarification. The proposed LCO Action in which the valve is inoperable for opening (e.g., the vacuum breaker is not open and may be stuck closed or

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not within its opening setpoint limit, so that it would not function as designed during an event that depressurized the drywell), will not require isolation using the manual isolation valves. Isolating an inoperable closed vacuum breaker, though desirable from a maintenance perspective, is not necessary if the vacuum breaker is not open. The purpose of the proposed LCO Action is to ensure that any blowdown from the drywell to the suppression pool goes into the pool, and not the airspace. With the vacuum breakers operable for opening but closed, this can not occur. The manual isolation valves will be required to be closed to isolate the vacuum breaker in the event of a vacuum breaker being open for a reason other than performing surveillance tests or in the event the vacuum breaker is performing its intended function. This will continue to ensure that suppression chamber to drywell bypass leakage is maintained within assumed values.

An extension in the SR frequency from seven to 14 days in proposed SR 4.6.4.1.a, specified in change item 6, is consistent with the SR frequency provided in NUREG-1433, Revision 1. For the position verification, most other safety-related valves are verified once per 31 days, and since these valves cannot be permanently repositioned and are routinely found in the proper position, extending the current SR frequency is considered justifiable. The note added to proposed SR 4.6.4.1.a is provided to clearly define permissible conditions when the vacuum breaker may be open. This includes periods when the vacuum breakers are opened due to performance of routine surveillance testing or during conditions where the vacuum breakers are functioning in a pressure relief capacity, during normal and off-normal plant operations. Since these vacuum breaker openings are expected to be momentary the operability of the vacuum breakers is still maintained.

**G. IMPACT ON PREVIOUS SUBMITTALS**

ComEd has reviewed the proposed changes regarding impact on any previous submittals, and has determined that there is no impact on any outstanding previous submittals.

**H. SCHEDULE REQUIREMENTS**

Based on the proposed changes incorporating an NRC previously approved approach provided in NUREG-1433, Revision 1, and the objective to refine a requirement that would cause an unnecessary shutdown when adequate capability exists to demonstrate system operability and functionality, ComEd is requesting that this proposed change, if found acceptable, be approved within six months.

**I. REFERENCES**

1. NUREG-1433, Revision 1, "Standard Technical Specifications, General Electric Plants, BWR/4," April 1995