

PHILADELPHIA ELECTRIC COMPANY

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of :  
: Docket No. 50-352  
PHILADELPHIA ELECTRIC COMPANY :

APPLICATION FOR AMENDMENT  
OF  
FACILITY OPERATING LICENSE  
NPF-39

Eugene J. Bradley  
2301 Market Street  
Philadelphia, Pennsylvania 19101  
Attorney for  
Philadelphia Electric Company

BEFORE THE  
UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of :  
PHILADELPHIA ELECTRIC COMPANY : Docket No. 50-352

APPLICATION FOR AMENDMENT  
OF  
FACILITY OPERATING LICENSE  
NPF-39

---

Philadelphia Electric Company, Licensee under Facility Operating License NPF-39, for Limerick Generating Station Unit No. 1, hereby requests that the Technical Specifications contained in Appendix A to the Operating License be amended to reflect the proposed changes to the Technical Specifications discussed in NRC Generic Letter 87-09.

Generic Letter 87-09 discusses three problems regarding the general requirements of Section 3.0 and 4.0 of the Standard Technical Specifications (STS) and provides suggested changes which remove operating restrictions, which the NRC has concluded

are unnecessary. This Application requests changes to the following three specifications (and affected pages) located in Limiting Condition for Operation (LCO) and Surveillance Requirements section of the Limerick Generating Station (LGS) Technical Specifications:

- 1) Spec 3.0.4 page 3/4 0-1
- 2) Spec 4.0.3 page 3/4 0-2
- 3) Spec 4.0.4 page 3/4 0-2

The Specifications proposed herein are consistent with those suggested in Generic Letter 87-09 dated June 4, 1987 and as previously approved by the NRC for the Susquehanna Steam Electric Station on April 4, 1988 (see Amendments No. 78 and 43 to NPP-14 and NPP-22 Susquehanna Units 1 and 2 Docket Nos. 50-387 and 50-388, respectively).

This Application is divided into three sections, each of which provides a Discussion, Description of Changes, Safety Assessment and a Significant Hazards Determination for the changes relating to each Technical Specification cited above based upon Generic Letter 87-09 and the amendment application approved by the NRC April 4, 1988 submitted by Susquehanna Steam Electric Station Units 1 and 2. Attachment A lists all pages proposed to be changed with all revised pages including proposed changes to the Bases. All changes are indicated by a vertical bar in the margin. The changes are requested to be effective October 14, 1988, prior to the Unit 1 second refuel outage,

scheduled to commence January 14, 1989 to allow effective and efficient outage planning.

Discussion - Tech Spec 3.0.4

Many of Technical Specifications which contain Action Requirements permitting continued operation without time limitations also currently contain exceptions to the provisions of 3.0.4 so that operational condition changes are not unnecessarily impeded when operation can safely continue. However, these exceptions are not consistently applied nor are their bases well documented. Inconsistent application of exceptions to Technical Specification 3.0.4 impacts the operation of the facility in two ways. First, it delays startup under conditions in which conformance to the Action Requirements establishes an acceptable level of safety for unlimited continued operation of the facility (examples include fire watches in lieu of detection or suppression equipment, and effluent grab samples when an effluent monitor is inoperable). Second, it delays a return to power operation when the facility is required to be in a lower mode of operation as a consequence of other Action Requirements. In this case, the LCO must be met without reliance on the Action Requirements before returning the facility to that operational mode or other specified condition for which unlimited continued operation was previously permitted in accordance with the Action Requirements (for example isolation of a containment penetration when one of its isolation valves is inoperable).

## Description of Changes

The solution to the stated problem, endorsed by Generic Letter 87-09, is to change Technical Specification 3.0.4 to define the conditions under which its requirements do apply. Therefore, Specification 3.0.4 will be revised to state:

"Entry into an OPERATIONAL CONDITION or other specified condition shall not be made when the conditions for the Limiting Conditions for Operation are not met and the associated ACTION requires a shutdown if they are not met within a specified time interval. Entry into an OPERATIONAL CONDITION or specified condition may be made in accordance with ACTION requirements when conformance to them permits continued operation of the facility for an unlimited period of time."

As a consequence of the modification described above to Specification 3.0.4, individual specifications with Action Requirements permitting continued operation no longer need to indicate that Technical Specification 3.0.4 does not apply. Therefore, it is proposed that the exception language be deleted from individual specifications to avoid confusion about the applicability of Specification 3.0.4. However, exceptions to Specification 3.0.4 will not be deleted from individual specifications if a mode change would be precluded by Specification 3.0.4 as revised.

In addition, the bases for Specification 3.0.4 will be changed to reflect the rationale for the requested change. All changes are shown in Attachment A and indicated by a vertical bar.

#### Safety Assessment

Specification 3.0.4 unduly restricts facility operation when conformance to the Action Requirements provides an acceptable level of safety for continued operation. For an LCO that has Action Requirements permitting continued operation for an unlimited period of time, entry into an operational mode or other specified condition of operation should be permitted in accordance with those Action Requirements. This is consistent with the NRC's regulatory requirements for an LCO. The restriction on a change in operational modes or other specified conditions should apply only where the Action Requirements establish a specified time interval in which the LCO must be met or a shutdown of the facility would be required.

#### No Significant Hazards Consideration

- (1) The proposed change does not result in a significant increase in the probability or consequences of an accident previously evaluated. The proposed change does not reduce or remove the existing LCO requirements which specify the particular actions which are necessary to maintain

an acceptable level of safety in operation of the facility. The relief requested will be available only when the prescribed Action has no time limits. For these cases, unlimited operation under the action has already been determined by the NRC to be an acceptably safe alternative means of meeting LCO requirements. Therefore, the proposed change does not result in an increase in the probability or consequences of an accident previously evaluated.

- (b) The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The intent of the existing spec 3.0.4 is not altered by the proposed changes. Rather, its intent is clarified and the consistency of its application will be improved. Since the original intent is met the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.
- (c) The proposed change does not involve a significant reduction in margin of safety. Compliance with operating requirements as dictated by an LCO ensures the minimum functional level of equipment required for safe operation is maintained. The proposed change maintains the LCO action statements and therefore preserves the current level of safety.

Based on the previous discussions, the proposed change does not involve a Significant Hazards Consideration.

Discussion - Tech Spec 4.0.3

Consistent with the NRC's regulatory framework for Surveillance Requirements, Specification 4.0.3 states that the failure to perform a surveillance within the specified time interval shall constitute a failure to meet the LCO's Operability Requirements. Therefore, if a Surveillance Requirement is not met as a result of the failure to perform the surveillance, the LCO would not be met. Consequently, the LCO's Action Requirements must be met in the same manner as when a surveillance determines that a system or component is inoperable.

Generally, the Action Requirements include a specified time interval (i.e., allowable outage time limit) that permits corrective action to be taken to satisfy the LCO. When such a specified time interval is included in the Action Requirements, the completion of a missed surveillance within this time interval satisfies Specification 4.0.3.

Some Action Requirements have allowable outage time limits which do not establish a practical time for the completion of a missed Surveillance Requirement. If a Surveillance cannot be completed within these time limits, a plant shutdown would usually be required. Even if the Action Requirements include remedial measures that would permit continued operation, they may be stated in such a way that they could prevent the performance



of the required surveillance. A plant shutdown would also be required if the missed surveillance applies to more than the minimum number of systems or components required to be operable for operation under the allowable outage time limits of the Action Requirements. In this case, the individual specification or Specification 3.0.3 would require a shutdown. It is overly conservative to assume that systems or components are inoperable when a surveillance requirement has not been performed. The opposite is in fact the case; the vast majority of surveillances demonstrate that systems or components in fact are operable. When a surveillance is missed, it is primarily a question of operability that has not been verified by the performance of the required surveillance. Because the allowable outage time limits of some Action Requirements do not provide an appropriate time limit for performing a missed surveillance before shutdown requirements may apply, the TS should include a time limit that would allow a delay of the required actions to permit the performance of the missed surveillance.

#### Description of Changes

It is proposed that Specification 4.0.3 be revised as follows to clarify when a missed surveillance constitutes a violation of the Operability Requirements of an LCO and to clarify the applicability of the Action Requirements and the time during which the limits apply:

"Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours."

Specification 4.0.3 includes the statement that exceptions to it are stated in individual specifications. Licensee proposes to delete this statement because Specification 4.0.3 as proposed will supply sufficient operational flexibility.

#### Safety Assessment

Several areas must be considered when assessing the overall safety impact of the proposed change. These areas are:

1. The consequences of an overdue surveillance as the specification currently exists,
2. The impact of allowing 24 hours to complete a missed surveillance and
3. The possibility of misinterpreting the new specification.

The safety impact of each individual area described above is addressed and a concluding statement addresses the overall safety impact of the proposed change.

1. If a plant shutdown is required before a missed surveillance is completed, it is likely that it would be conducted when the plant is being shut down because completion of a missed surveillance would terminate the shutdown requirement. Thus, the plant would be in a transient state involving changing plant conditions that offer the potential for an upset while the system or component is being tested. Also the potential for a plant upset would increase when both the demands of the shutdown and surveillance activities are placed on the plant operators simultaneously. The proposed change would avoid putting plant operations in a transient condition and imposing pressure on the plant staff to avoid a shutdown. The proposed change therefore enhances safe operation.
2. In considering the impact on safety of the proposed specification, it is important to first note that the provisions do not provide additional time when the situation does not warrant it. When greater than 24 hours exists, or when the component is known to be inoperable, the normal Action applies. The NRC concluded in Generic letter 87-09 that 24 hours would be an acceptable time limit for

completing a missed surveillance when the allowable outage times of the Action Requirements are less than this time limit or when shutdown Action Requirements apply. Licensee concurs with the NRC conclusion and notes that of the nearly 59,000 surveillances done at LGS over three and a half years only 10 were missed. Further, when the surveillances were subsequently done, all ten were completed satisfactorily. That is, none found a system or component to be inoperable. Therefore, it is apparent that little or no safety impact will result from the proposed allowance of 24 hours to complete a missed surveillance.

3. The potential for misinterpretation of the new wording was reviewed, and it is believed that the improved Bases section will minimize any potential for misinterpretation of the new wording. This area then, does not impact safety.

In summary, the 24-hour time limit would balance the risks associated with an allowance for completing the surveillance within this period against the risks associated with the potential for a plant upset and challenge to safety systems when the alternative is a shutdown to comply with Action Requirements before the surveillance can be completed.

No Significant Hazards Consideration

(1) The proposed change does not involve a significant increase in the probability or consequences of any accident previously evaluated. All LCO action statements will remain unchanged so that the previous level of safety will be maintained. The allowance of 24 hours to complete the missed surveillance allows the operations staff to focus on completing one task versus two (i.e. completing the missed surveillance and initiating a shutdown). The safety significance of the delay in completion of the surveillance is minimal in comparison to the risk associated with the potential for a plant upset and a challenge to safety systems when the alternative is a shutdown to comply with Action Requirements. In addition, the change has no potential to affect the consequences of any accident. Based on these facts the aforementioned conclusion was reached.

(2) The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The change proposes to allow 24 hours to complete the missed surveillance prior to initiating the requirements of the LCO. The 24-hour time limit would balance the risks associated with an allowance for completing the surveillance within this period

against the risks associated with the potential for a plant upset and challenge to safety systems when the alternative is a shutdown to comply with Action Requirements before the surveillance can be completed. This change does not impact equipment operability and does not create the possibility of a new or different kind of accident from any accident previously evaluated.

- (3) The proposed change does not involve a significant reduction in a margin of safety. As discussed in items one and two above, the proposed change does not involve a significant reduction in a margin of safety.

Based on the previous discussions the proposed change does not involve a Significant Hazards Consideration.

#### Discussion - Tech Spec 4.0.4

Currently, a conflict can exist between the operational condition changes required by action statements, and 4.0.4 which precludes such changes if surveillances required to support the new condition are not completed prior to entry. Part of this problem is alleviated by the proposed change to Specification 4.0.3 which would allow 24 hours to complete a surveillance, which is past due, prior to initiating Shutdown Action Requirements. The other part of the solution is the change proposed to Specification 4.0.4, addressed here.

### Description of Changes

The potential for a plant upset and challenge to safety systems is heightened if surveillances are performed during a shutdown to comply with Action Requirements. It is not the intent of Specification 4.0.4 to prevent passage through or to operational modes to comply with Action Requirements and it should not apply when mode changes are imposed by Action Requirements. Accordingly, Specification, 4.0.4 should be modified as follows:

"This provision shall not prevent passage through or to OPERATIONAL CONDITIONS as required to comply with ACTION requirements."

### Safety Assessment

It is not the intent of Specification 4.0.3 that the Action Requirements should preclude the performance of surveillances when an exception to Specification 4.0.4 is allowed. However, since Specification 4.0.3 has been requested to change to permit a delay of up to 24 hours in the applicability of the Action Requirements, an appropriate time limit would exist for the completion of those Surveillance Requirements that become applicable when an exception to Specification 4.0.4 is allowed. The statement added to 4.0.4 is an editorial improvement to the Technical Specifications and has no significant impact on safety.

## No Significant Hazards Consideration

- (1) The proposed change does not involve a significant increase in the probability or consequences of any accident previously evaluated. Generic Letter 87-09 states that, "It is not the intent of Specification 4.0.4 to prevent passage through or to operational modes to comply with Action Requirements and it should not apply when mode changes are imposed by Action Requirements." The proposed change removes a conflict which exists for some Action Statements and the overly restrictive Specification 4.0.4. Compliance with the Action Statements ensures maintaining acceptable levels of operating safety, and therefore, does not involve a significant increase in the probability or consequences of any accident previously evaluated.
  
- (2) The proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated. The proposed change involves a clarification and removal of unnecessary conflicts which exist in the Technical Specifications. LCO's and Action Statements remain unchanged, and no new situations are created which could lead to a condition not evaluated. Therefore, the changes do not create the possibility of a new or different kind of accident.



- (3) The proposed change does not involve a significant reduction in a margin of safety. For reasons stated previously in criterion (1) of this section of this Application, there is no reduction in a margin of safety.

Based on the previous discussions the proposed change does not involve a Significant Hazards Consideration.

#### Environmental Considerations

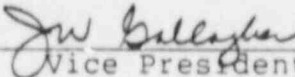
Licensee has determined that this amendment involves no increase in the amounts and no change in the types of any effluents that may be released offsite and has also determined that there is no increase in the individual or cumulative occupational radiation exposure. Therefore, there is no environmental consideration involved with this Application and consequently an environmental report is not submitted.

#### Conclusion

The proposed changes were analyzed to determine how they would affect the accident analyses contained in the Final Safety Analysis Report. In addition, the review of "No Significant Hazards Consideration" was completed. In all cases of review it was concluded that the proposed changes do not reduce the overall margin of safety and provide enhancement to the Technical Specifications of Limerick Generating Station.

The Plant Operation Review Committee and the Nuclear Review Board have reviewed these proposed changes to the Technical Specifications and have concluded that they do not involve significant hazards considerations or an environmental consideration and will not endanger the health and safety of the public.

Respectfully submitted,  
PHILADELPHIA ELECTRIC COMPANY

  
Vice President

COMMONWEALTH OF PENNSYLVANIA

:

:

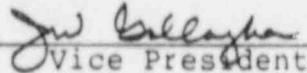
SS.

COUNTY OF PHILADELPHIA

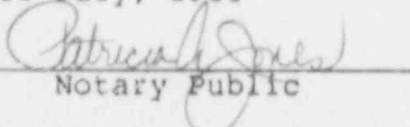
:

J. W. Gallagher, being first duly sworn, deposes and says:

That he is Vice President of Philadelphia Electric Company, the Applicant herein; that he has read the foregoing Application for Amendment of Facility Operating License NPF-39 and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.

  
Vice President

Subscribed and sworn to  
before me this 18<sup>th</sup> day  
of July, 1988

  
Notary Public

PATRICIA A. JONES  
Notary Public, Phila., Phila. Co.  
My Commission Expires Oct 13, 1990

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of : Docket No.: 50-352  
PHILADELPHIA ELECTRIC COMPANY :  
(Limerick Generating Station, :  
Unit No. 1)

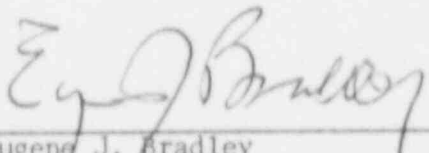
CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Application for Amendment of Facility Operating License NPF-39 in the above captioned matter were served on the following by deposit in the United States Mail, first class postage prepaid, on the 19<sup>th</sup> day of July, 1988.

William T. Russell, Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406

T. J. Kenny  
U.S. Nuclear Regulatory Commission  
Senior Resident Inspector  
P.O. Box 47  
Sanatoga, PA 19464

Thomas Gerusky, Director  
Bureau of Radiological Protection  
Department of Environmental Resources  
P.O. Box 2063  
Harrisburg, PA 17120

  
Eugene J. Bradley

Attorney for  
Philadelphia Electric Company

Facility Operating License

Docket No. 50-352

Remove

Insert

3/4 0-1	3/4 0-1
3/4 0-2	3/4 0-2
3/4 0-3	3/4 0-3
3/4 1-16	3/4 1-16
3/4 2-9	3/4 2-9
3/4 3-36	3/4 3-36
3/4 3-63	3/4 3-63
3/4 3-68	3/4 3-68
3/4 3-73	3/4 3-73
3/4 3-89	3/4 3-89
3/4 3-90	3/4 3-90
3/4 3-91	3/4 3-91
3/4 3-92	3/4 3-92
3/4 3-97	3/4 3-97
3/4 3-98	3/4 3-98
3/4 4-24	3/4 4-24
3/4 6-51a	3/4 6-51a
3/4 7-17	3/4 7-17
3/4 7-19	3/4 7-19
3/4 7-22	3/4 7-22

3/4 7-24

3/4 7-24

3/4 7-25

3/4 7-25

3/4 7-26

3/4 7-26

3/4 7-29

3/4 7-29

3/4 7-31

3/4 7-31

3/4 11-5

3/4 11-5

3/4 11-6

3/4 11-6

3/4 11-7

3/4 11-7

3/4 11-8

3/4 11-8

3/4 11-12

3/4 11-12

3/4 11-13

3/4 11-13

3/4 11-14

3/4 11-14

3/4 11-15

3/4 11-15

3/4 11-17

3/4 11-17

3/4 11-18

3/4 11-18

3/4 11-20

3/4 11-20

3/4 12-2

3/4 12-2

3/4 12-13

3/4 12-13

3/4 12-14

3/4 12-14

B 3/4 0-1

B 3/4 0-1

B 3/4 0-2

B 3/4 0-2

B 3/4 0-3

B 3/4 0-3

B 3/4 0-4

B 3/4 0-5

B 3/4 0-6