

April 2, 1987

Docket No.: 50-352

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Mr. Edward G. Bauer, Jr.
Vice President and General Counsel
Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Dear Mr. Bauer:

SUBJECT: FEDERAL REGISTER NOTICE

RE: Limerick Generating Station, Unit 1

Enclosed is an Individual Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing. This amendment was requested by your letter dated January 30, 1987, and as supplemented March 27, 1987. This Notice was forwarded to the Office of the Federal Register for publication.

Sincerely,

Original Signed by

Robert E. Martin, Project Manager
BWR Project Directorate No. 4
Division of BWR Licensing

Enclosure:
As stated

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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2301 Market Street
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Sincerely,

Robert E. Martin
Robert E. Martin, Project Manager
BWR Project Directorate No. 4
Division of BWR Licensing

Enclosure:
As stated

cc w/enclosure:
See next page

Mr. Edward G. Bauer, Jr
Philadelphia Electric Company

Limerick Generating Station
Units 1 & 2

cc:

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UNITED STATES NUCLEAR REGULATORY COMMISSIONPHILADELPHIA ELECTRIC COMPANYDOCKET NO. 50-352NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE AND PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-39 issued to Philadelphia Electric Company for operation of the Limerick Generating Station, Unit 1, located in Montgomery County, Pennsylvania.

The proposed amendment would change the Technical Specifications (TS) in accordance with the licensee's application for amendment dated January 30, 1987, and as supplemented on March 27, 1987, to permit an increase in the allowable control room air leakage rate. The change to the surveillance requirement in TS 4.7.2.e.3 would allow an increase from 525 cubic feet per minute (cfm) to 2100 cfm in the amount of outside air which must be taken in by the control room heating, ventilating and air conditioning (HVAC) systems in order to maintain a control room internal positive pressure of at least one-eighth inch water gauge during a radiation isolation mode of operation of the control room habitability systems. The change is requested to permit the establishment of a larger opening into the common Unit 1 and 2 control room to facilitate cable pulling associated with the construction of Unit 2.

The control room HVAC systems operate in three modes of operation as follows: (1) the chlorine isolation mode in response to a chlorine accident

(2) the other toxic chemical isolation mode in response to other toxic chemical accidents, and (3) the radiation isolation mode in response to a high radiation accident. The response to the other toxic chemical accidents, as required by the degree of severity of the event, is to manually isolate the control room, initiate the control room emergency fresh air supply system (CREFAS) to process the recirculated air through charcoal filters, and use by the operators of self contained breathing apparatus. The response for the chlorine accident is similar except that the isolation is automatic. The response to the radiation accident is to automatically isolate the control room except for a specified intake of outside air which is processed by the CREFAS before being used to maintain the control room at a positive internal pressure.

The proposed change would result in no physical system design changes to the normal control room (CR) HVAC or CREFAS system. A CR admitting 2100 cfm, instead of 525 cfm, in the radiation isolation mode would require a corresponding increase in the flowrate processed by the CREFAS prior to supplying it to the CR. The value of 2100 cfm is within the 3000 cfm capability of the CREFAS as discussed in the FSAR. A control room, that is assumed to be consistent with a demonstrated 2100 cfm inleakage capability when unpressurized and isolated in the chlorine or other toxic chemical isolation mode would require the operators to rely on self contained breathing apparatus at an earlier time (2.1 minutes) than if the leakage were consistent with the lower value of 525 cfm (2.6 minutes).

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that 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; or (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.

The licensee has provided analyses of no significant hazards considerations in its request for the license amendment. The licensee has concluded, with appropriate bases, that the proposed amendment satisfies the standards in 10 CFR 50.92 and, therefore, involves no significant hazards considerations.

The NRC staff has made a preliminary review of the licensee's submittals. The staff's evaluation of the proposed changes is provided below.

Standard 1 - Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated

The control room HVAC systems, including the control room emergency fresh air system, operate in response to three accident scenarios which include a high radiation accident, a chlorine release accident and other toxic chemical release accident. There are no physical changes to the design of the CR HVAC or the CREFAS system. The system's controls will compensate for the increased opening area into the control room space by increasing the

volume of outside air to the control room in order to keep the control room pressurized in response to the high radiation accident. The increase in the potential CR inleakage rate during its chlorine and other toxic chemical isolation response modes continues to provide more than two minutes for operators to put on self contained breathing apparatus. The increase in the allowable leakage rate and the associated increase in the HVAC flow rate is considered by the licensee to be independent of those events which would cause a high radiation or toxic chemical release accident; the probability of any accident previously evaluated is, therefore, not significantly increased. The licensee has evaluated the change in consequences resulting from the increased leakage and finds that the radiological doses to the operators, as shown in Table 1 of the amendment application and the supplemental letter dated March 27, 1987, would not be significantly increased. These calculated doses remain well within the dose guidelines of Section 6.4 of the Standard Review Plan (SRP). The licensee has evaluated the change in consequences from the chlorine and other toxic chemical release accidents and finds that there is no significant increase in consequences since the operators will continue to have more than the two minute minimum specified in SRP 6.4 in which to put on self contained breathing apparatus.

Standard 2 - Create the Possibility of a New or Different kind of Accident From An Accident Previously Evaluated

The proposed changes do not physically alter the normal HVAC or CREFAS system design or operation nor does it affect the performance of any other system. The proposed change involves an increase in system flow rate which is within the design capability of the systems to meet normal operational

requirements and the high radiation accident. The proposed changes continue to allow the system to be isolated upon a chlorine or other toxic chemical accident in sufficient time to provide the operators with over two minutes to don self contained breathing apparatus. The licensee states that the analyses at the proposed increased air leakage rate are based on the existing design basis radiological accident described in FSAR Sections 15.6 and 15.10.2 and releases of toxic chemicals as described in FSAR Section 2.2.3 and that no new or different types of accidents are created by increasing the allowable leakage rate into the control room.

Standard 3 - Involve a Significant Reduction in a Margin of Safety

The licensee states that while the CR dose following the postulated design basis accidents described in FSAR Sections 15.6 and 15.10.2 is increased with the higher leakage rate, the reduction in the margin of safety is minimal as shown in Table 1 of the amendment application. Table 1 shows that although there will be an increase in the calculated dose as a result of a high radiation accident the increase is insignificant and the dose continues to be a small fraction of the limits established in General Design Criterion 19 and in the Standard Review Plan.

Since the allowable inleakage to the CR in a toxic chemical isolation mode would be increased by the proposed amendment the time available to the operators to don protective breathing apparatus before the concentration of chlorine or other toxic chemicals in the CR atmosphere becomes excessive is reduced. The licensee states that the effect of the proposed change is to reduce the time available for the operators to respond to the limiting chemical, ethylene oxide, from 2.6 minutes as stated in FSAR Table 2.2-6, to 2.1 minutes.

The 2.1 minute period is still in excess of the protective action limit of two minutes or less as discussed in Section 6.4 of the Standard Review Plan. On this basis the licensee has concluded that the proposed change does not involve a significant reduction in a margin of safety.

The staff notes that the change from 2.6 minutes to 2.1 minutes in the available time for donning breathing apparatus is, as stated by the licensee, a decrease in the margin of safety. Although this change does result in a reduction in the margin associated with the time to implement protective measures prior to incapacitation, the staff is aware of the various conservatisms that are applied to the overall evaluation of the toxic gas risk. This includes conservatisms with respect to the likelihood and magnitude of a toxic gas release, as well as the degree of gas dispersion and infiltration into the control room. Hence, when considered in the context of the complete sequence of events associated with toxic gas hazards and accident analyses, the effect of the calculated decrease from 2.6 to 2.1 minutes on the overall toxic gas risk is small.

The Commission has provided certain examples (51 FR 7744) of actions likely to involve no significant hazards considerations. Example vi relates to a change which either may result in some increase to the probability or consequences of a previously-analyzed accident or may reduce in some way a safety margin, but where the results of the change are clearly within all acceptable criteria with respect to the system or component specified in the Standard Review Plan (SRP).

In this case the proposed change is similar to Example vi in that even though the margin between the calculated and the allowable control room

doses due to a radiation accident and the margin between the previously available time and the minimum allowable time for the operators to put on self contained breathing apparatus in response to a toxic chemical accident is reduced, the change results in calculated doses and a response time which are within the acceptance criteria specified in the SRP.

As the changes requested by the licensee's January 30, 1987 submittal fit Example (vi) as well as satisfy the criteria of 10 CFR 50.92, the staff proposes to determine that the proposed changes do not involve a significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing.

Written comments should be addressed to the Rules and Procedures Branch, Division of Rules and Records, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Copies of comments received may be examined at the NRC Public Document Room, 1717 H Street, NW, Washington, D.C.

By May 7, 1987, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Request for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules

of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR §2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the

petition to intervene which must include a list of the contentions which are sought to be litigated in the matter, and the bases for each contention set forth with reasonable specificity. Contentions shall be limited matters within the scope of the amendment under consideration. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that

its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Att: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, 1717 H Street, NW Washington, D.C., by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at (800) 325-6000 (in Missouri (800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to Walter R. Butler, Director, BWR Project Directorate No. 4, Division of BWR Licensing: petitioner's name and telephone number; date petition was mailed; plant name; and publication date and page number of this FEDERAL REGISTER notice. A copy of the petition should also be sent to the Executive Legal Director, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to Conner and Wetterhahn, 1747 Pennsylvania Avenue, Washington, D.C. 20036, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic

Safety and Licensing Board, that the petition and/or request should be granted based upon a balancing of factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated January 30, 1987, as supplemented by letter dated March 27, 1987, which is available for public inspection at the Commission's Public Document Room, 1717 H Street, NW, Washington, D.C. 20555, and at the Pottstown Public Library, 500 High Street, Pottstown, Pennsylvania 19464.

Dated at Bethesda, Maryland, this 2nd day of April, 1987.

FOR THE NUCLEAR REGULATORY COMMISSION



Walter R. Butler, Director
BWR Project Directorate No. 4
Division of BWR Licensing