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SENIOR VICE-PRESIDENT - NUCLEAR

December 5, 1988

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

Docket No. 50-353

Subject: Limerick Generating Station, Unit 2
Request for Exemption from 10CFR50.44

Dear Dr. Murley:

In accordance with 10CFR50.12(a) Philadelphia Electric Company requests an exemption from 10CFR50.44(c)(3)(i) to extend the permitted time of operation with a non-inerted containment to accommodate completion of the Power Ascension Test Program. The Limerick Unit 2 Power Ascension Test Program is based on maintaining the containment in a non-inerted condition until the successful completion of the 100-hour warranty run, a condition which normally would be expected to occur within approximately 120 effective full power days of core burn-up. The attachment to this letter provides the specific justifications in accordance with the requirements of 10CFR50.12(a).

If you have any questions, please do not hesitate to contact us.

Sincerely,

J. S. Kemper
Senior Vice-President
Nuclear

JEP/sw/10248201

Copy to: Addressee
R. J. Clark, USNRC Project Manager
W. T. Russell Administrator, Region I, USNRC
T. J. Kenny, USNRC Senior Resident Inspector, LGS-1
R. A. Gramm, USNRC Senior Resident Inspector, LGS-2

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LGS Unit 2
Docket No. 50-353

ATTACHMENT

REQUEST FOR EXEMPTION FROM THE
REQUIREMENTS OF 10CFR50.44(a)(3)(I)

Exemption Requested

Inerting the containment for the Limerick Generating Station Unit 2 is required by 10CFR50.44. Section 50.44(c)(3)(I) states in part that, "Effective May 4, 1982 or 6 months after initial criticality, whichever is later, an inerted atmosphere shall be provided for each boiling light-water nuclear power reactor with a Mark I or Mark II type containment".

Philadelphia Electric Company requests an exemption from 10CFR50.44(c)(3)(I) to extend the permitted time of operation with a non-inerted containment to accommodate completion of the Power Ascension Test Program. The Limerick Unit 2 Power Ascension Test Program is based on maintaining the containment in a non-inerted condition until the successful completion of the 100-hour warranty run, a condition which normally would be expected to occur within approximately 120 effective full power days (EFPD) of core burn-up.

Justification for Requested Exemption

The requested exemption may be granted by the NRC under 10CFR50.12(a) provided that the exemption is: I) authorized by law, II) will not present an undue risk to the public health and safety, III) is consistent with the common defense and security, and IV) justified by the presence of special circumstances of the type identified in Section 50.12(a)(2).

I. The Requested Exemptions and the Activities Which Would Be Allowed Thereunder Are Authorized by Law

If the criteria established in 10CFR50.12(a) are satisfied and if no other prohibition of law exists to preclude the activities which would be authorized by the requested exemption, then the Commission is authorized by law to grant the exemption request. Since, as demonstrated herein, the requested exemption meets the applicable criteria and there is no legal prohibition to its grant, the Commission is authorized by law to grant the exemption.

II. The Requested Exemption Will Not Present an Undue Risk to the Public Health and Safety

For the reasons stated below and in Section IV, Special Circumstances, the requested exemption to extend the permitted time of operation with a non-inerted containment to

accommodate completion of the Power Ascension Test Program does not present undo risk to the public health and safety. It is advantageous to operate the reactor without inerting the containment during the Power Ascension Test Program to permit observations for identification of possible safety problems. The high frequency of containment entries during this period of the required deinerting and reinerting time (about 36 hours) might discourage early and frequent containment entries for identifying and correcting potential safety problems during testing. Further, Philadelphia Electric Company believes that it is not the intent of the regulation to require inerting before the Power Ascension Test Program has been completed but rather is intended to provide and encourage assurance of safety, by providing opportunities to conveniently examine and evaluate components and systems inside containment while the tests are underway and systems are dynamic. Completing the tests with an uninerted containment would reduce the likelihood of the development of an event requiring protective safety actions during the period of exemption. Additionally, the low level of fission product inventory which will be created during the Power Ascension Test Program minimizes the need for the inerting system during the exemption period.

III. The Requested Exemption is Consistent with the Common Defense and Security

The common defense and security are not endangered by this exemption request. Only the potential impact on public health and safety is at issue and has been determined to be inconsequential.

IV. Special Circumstances

The regulation established a six month exemption period after initial criticality when inerting is not required with the understanding and expectation that a Power Ascension Test Program would be a continuous program unimpeded by physical or regulatory limits to power increases. In the case of Limerick Unit 1, and most other recent BWR initial start-ups, unanticipated equipment problems and regulatory delays have caused the power ascension test period to be extended beyond the six month duration. The average actual duration is approximately ten months.

It has been a long established practice, as reflected in 10CFR50.44 to operate boiling water plants during power ascension testing with non-inerted containments. The high frequency of containment entries during this period of plant operations make it impractical to operate with an inerted containment and impacts the effectiveness of the Power Ascension Test Program. It is advantageous to operate the reactor without inerting the containment during the Power

Ascension Test Program to permit inspections for identification of possible safety problems. Strict compliance with the regulation would result in undue hardships and schedule pressures in excess of those contemplated when the regulation was adopted and also in excess of recent industry power ascension testing experience.

Conclusion

Based on the justifications above, Philadelphia Electric Company requests an exemption under 10CFR50.12(a) to 10CFR50.44(c)(3)(i) until either 120 EFPD have elapsed or until completion of the Power Ascension Test Program. The completion of the Power Ascension Test Program is signified by the successful completion of the 100-hour warranty run. The justifications provided represent several of the special circumstance requirements of 10CFR50.12(a)(2) necessary in order to grant the requested exemption. Granting the exemption would result in an overall benefit to the public health and safety by promoting efficient and expeditious testing of facility systems and components. To require inerting before the conclusion of the Power Ascension Test Program could result in less assurance of safety because of the added time and/or decreased ability to directly examine and evaluate components and systems inside containment during testing.

The exemption request and justifications for granting this exemption for Limerick Unit 2 are similar to those found acceptable by the NRC on other dockets including Limerick Unit 1 (Operating License NPF-39 with supporting Safety Evaluation Report, NUREG-0991, Supplement #5 dated July 1985) and should be considered in the granting of the requested exemption.

Finally, Philadelphia Electric requests this exemption be granted concurrent with or prior to the issuance of the Operating License for Limerick Unit 2. The draft Limerick Unit 2 Technical Specifications have been proposed to reflect this exemption request.