Docket No.: 50-353

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

Dear Mr. Bauer:

SUBJECT: PRESERVICE INSPECTION PROGRAM (TAC NO. 66831)

RE: LIMERICK GENERATING STATION, UNIT 2

Your letter dated September 10, 1987 submitted the Preservice Inspection Program for Limerick Unit 2. The submittal, however, was not docketed until December 11, 1987. We have completed our initial review and find we need clarification on several items as discussed in the enclosed request for additional information. Your submittal also stated that a number of items would be provided later, such as requests for relief and the applicable P&IDs (as listed on p 1X of the Table of Contents to be included in Appendix A). As discussed in the enclosure, some of this information is needed for us to proceed with our review.

Please advise me of when you expect to provide the information requested. This request for information is specific to one applicant and thus OMB clearance is not required under P.L. 96-511.

Sincerely.

Original signed by Richard J. Clark

Richard J. Clark, Project Manager Project Directorate I-2 Division of Reactor Projects I/II

Enclosure: Request for Additional Information

cc: See next page

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

May 10, 1988

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Richard J. Clark, Project Manager Project Directorate I-2 Division of Reactor Projects I/II

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Mr. Edward G. Bauer, Jr Philadelphia Electric Company

cc:

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Mr. Thomas Kenny Senior Resident Inspector US Nuclear Regulatory Commission P. J. Box 47 Sanatoga, Pennsylvania 19464

Mr. Joseph V. Gallagher Vice President, Nuclear Services Philadelphia Electric Company 2301 Market Street Philadelphia, Pennsylvania 19101

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Mr. John Doering Superintendent-Operations Limerick Generating Station P. O. Box A Sanatoga, Pennsylvania 19464

Thomas Gerusky, Director Bureau of Radiation Protection PA Dept. of Environmental Resources P. O. Box 2063 Harrisburg, Pennsylvania 17120

Governor's Office of State Planning and Development ATTN: Coordinator, Pennsylvania State Clearinghouse P. O. Box 1323 Harrisburg, Pennsylvania 17102

Mr. Philip J. Duca Superintendent-Technical Limerick Generating Station P. O. Box A Sanatoga, Pennsylvania 19464 REQUEST FOR ADDITIONAL INFORMATION PRESERVICE INSPECTION PROGRAM PLAN LIMERICK GENERATING STATION, UNIT 2 DOCKET NO. 50-353

1. Scope/Status of Review

General Design Criteria 32, 36, 39, 42, and 45, in Appendix A of 10 CFR Part 50 require, in part, that Code Class 1, 2, and 3 components be designed to permit periodic examination and testing of important areas and features to assess their structural and leak-tight integrit . The design of these components must incorporate provisions for access for inservice examinations, as required by Subarticle IWA-1500 of Section XI of the ASME Code. 10 CFR 50.55a(q) defines the detailed requirements for the preservice and inservice programs for light water-cooled nuclear power facility components. Based upon the construction permit date of June 19, 1974, components (including supports) which are classified as ASME Code Class 1 and 2 shall meet the preservice examination requirements set forth in editions and addenda of Section XI of the ASME Code in effect 6 months prior to the date of issuance of the construction permit. The components (including supports) may meet the requirements set forth in subsequent editions of this Code and Addenda which are incorporated by reference in paragraph (b) of 10 CFR 50.55a, subject to the limitations and modifications listed therein. The Preservice Inspection (PSI) Program Plan has been prepared to meet the requirements of the 1980 Edition, Winter 1981 Addenda (80W81) of the ASME Code Section XI except that the extent of examination for Code Class 2 piping welds in Residual Heat Removal (RHR) Systems, Emergency Core Cooling (ECC) Systems, and Containment Heat Removal (CHR) Systems has been determined by the 1974 Edition through Summer 1975 Addenda (74575).

As required by 10 CFR 50.55a(a)(3), if the apple ant determines that certain Code examination requirements are impractical and relief is requested, the applicant shall submit information to the Nuclear Regulatory Commission (NRC) to support that determination.

The staff has reviewed the available information in the Limerick Generating Station, Unit 2, PSI Program, through Revision 1, submitted September 10, 1987.

2. Additional Information/Clarification Required

Based on the above review, the staff has concluded that the following information and/or clarification is required in order to complete the review of the PSI Program Plan:

- A. Provide the staff with two documents listed in Section 1.3 of the PSI Program Plan. The requested documents are entitled "Preservice Inspection of the ASME Code Class 1 Reactor Pressure Vessel" (document 8031-M246B-LATER), and "Preservice Inspection ASME Code Class 1, 2, and 3 Nuclear Piping Systems" (document 8031-P-505). These documents are reported to identify the specific details as to how the various requirements and commitments made in the Inspection Program are to be met. These documents, if they contain an itemized listing of the welds/components subject to examination along with drawings, will permit the staff to determine if the extent of PSI examinations meets the applicable Code Section XI and augmented examination requirements.
- B. Section 1.8, "Classification of Components," of the PSI Program references color-coded P&ID boundary diagrams identifying ASME Code Class 1, 2, and 3 piping systems as being included in Appendix A. These boundary diagrams identify the areas where the requirements of ASME Section XI apply in their entirety. These attachments are missing from the package that was submitted for review and are required in order to continue the review.
- C. Section 3.1(A) of the PSI Program indicates that Class 2 piping welds in the Residual Heat Removal (RHR), Emergency Core Cooling (ECC), and Containment Heat Removal (CHR) systems may be exempted from examinations based on the temperature/pressure exclusions contained in IWC-1220.

Paragraph 10 CFR 50.55a(b)(2)(iv) requires that ASME Code Class 2 piping welds in the RHR, ECC, and CHR systems be examined; these systems should not be completely exempted from inservice volumetric examination based on Section XI exclusion criteria contained in IWC-1220. Later editions and addenda of the Code do not permit the temperature/pressure exclusion for these systems, and require volumetric examination of welds in piping with greater than or equal to 3/8-inch nominal wall thickness and greater that 4-inch nominal pipe size (NPS). The staff has previously determined that a 7.5% augmented volumetric sample constitutes an acceptable resolution at similar plants. Verify that these systems will not be completely exempted from examinations based on the exclusion criteria contained in IWC-1220, and that volumetric examination will be performed on a representative sample of the Class 2 piping welds in these systems.

- D. Sections 2.4 (reactor pressure vessel), 2.7 (Class 1 piping), 2.9 (Class 1 pumps), 3.4 (Class 2 pressure vessels), 3.7 (Class 2 piping), and 3.10 (Class 2 pumps) of the PSI Program all state that relief requests will be submitted "Later." Identify when all requests for relief from ASME Code Section XI PSI requirements will be submitted for staff review.
- D. When preparing requests for relief, the staff suggests that the Applicant follow the attached Appendix A, "Preservice Inspection: Guidance for Preparing Requests for Relief from Certain Code Requirements Pursuant to 10 CFR 50.55a(a)(3)."

APPENDIX A

PRESERVICE INSPECTION: GUIDANCE FOR PREPARING REQUESTS FOR RELIEF FROM CERTAIN CODE REQUIREMENTS PURSUANT TO 10 CFR 50.55a(a)(3)

A. Description of Requests for Relief

The guidance in this enclosure is intended to illustrate the type and extent of information that is necessary for "request for relief" for items that cannot be fully inspected to the requirements of Section XI of the ASME Code. The preservice inspection program should identify the inspection and pressure testing requirements of the applicable portion of Section XI that are deemed impractical because of the limitations of design, geometry or materials of construction of the components. The request for relief should provide the information requested in the following section of this appendix for the inspections and pressure tests identified above.

B. Request for Relief From Certain Inspection and Testing Requirements

Many requests for relief from inspection and testing requirements submitted by Applicants have not been supported by adequate descriptive and detailed technical information. This detailed information is necessary to: (1) document the impracticality of the ASME Code requirements within the limitations of design, geometry and materials of construction of components; and (2) determine whether the use of alternatives will provide an acceptable level of quality and safety.

Relief requests submitted with a justification such as "impractical," "inaccessible," or any other categorical basis, require additional information to permit an evaluation of that relief request. The objective of the guidance provided in this section is to illustrate the extent of the information that is required to make a proper evaluation and to adequately document the basis for granting the relief in the Safety Evaluation Report. Subsequent requests for additional information and delays in completing the review can be considerably reduced if this information is provided initially in the Applicant's submittal.

Each relief request should be submitted as a "stand alone" document with the following information included:

- 1. The ASME Code Class, Examination Category, and Item Number(s).
- Section XI examination or test requirements for the component(s) for which relief is being requested.
- 3. The number of items associated with the requested relief.
- Identification of the specific ASME Code requirement that has been determined to be impractical.

- An Itemized list of the specific component(s) for which relief is requested.
- An estimate of the percentage of the Code-required examination that can be completed for each of the individual components requiring relief.
- 7. Information to support the determination that the requirement is impractical; i.e., state and explain the basis for requesting relief. If the Code-required examination cannot be performed because of a limitation or obstruction, describe or provide drawings showing the specific limitation or obstruction.
- A identification of the alternative examinations that are proposed:

 (a) in lieu of the requirements of Section XI; or (b) to supplement examinations performed partially in compliance with the requirements of Section XI.
- 9. A description and justification of any changes expected in the overall level of plant safety by performing the proposed alternative examination in lieu of the examination required by Section XI. If it is not possible to perform alternate examinations, discuss the impact on the overall level of plant quality and safety.
- A description of the ASME Code Section III fabrication examinations that were completed and documented during construction for the specific components listed in the relief requests.

Technical justification or data musc be submitted to support the relief request. Opinions without substantiation that a change will not affect the quality level are unsatisfactory. If the relief is requested for inaccessibility, a detailed description or drawing which depicts the inaccessibility must accompany the request.