JUL 28 1982

Docket Nos. 50-352/353

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

Dear Mr. Bauer:

Subject: Request for Additional Information - Limerick (Fire Protection)

The Fire Protection Section of the Chemical Engineering Branch has reviewed the Limerick FSAR and FPER and has identified a need for the additional information delineated in Enclosure 1.

Please provide us, within 7 working days from receipt of this letter, with the date(s) on which you plan to respond to the above. Any questions, concerning this information request should be directed to Dr. Harvey Abelson, (301) 492-9774, the Licensing Project Manager.

Sincerely,

A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing

Enclosure:
As Stated

cc: See next page

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Limerick

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Chemical Engineering Branch
Fire Protection Section
Request for Information
Limerick Units 1 & 2
Docket Nos. 50-352/353

280.1 The fire protection program will be reviewed to the guidelines of BTP CMEB 9.5-1 (NUREG-0800), July 1981. Provide a comparison that shows conformance of the plant fire protection program to these guidelines. Deviations from the guidelines should be specifically identified. A technical basis should be provided for each deviation.

280.2 Provide the qualifications of the fire protection engineer responsible for the formulation and implementation of the fire protection program.

280.3 Verify that administrative controls will be developed and implemented in accordance with BTP CMEB 9.5-1 Section C.2.

280.4 Verify that a plant fire brigade will be provided in accordance with BTP CMEB 9.5-1 Section C.3.

280.5 Verify that the plant fire brigade will have the minimum equipment listed in BTP CMEB 9.5-1 Section C.3.c.

280.6 Verify that a fire brigade training program will be provided in accordance with BTP CMEB 9.5-1 Section C.3.d.

280.7 Verify that fire brigade drills will be performed at regular intervals in accordance with BTP CMEB 9.5-1 Section C.3.D.7.

280.8 Verify that all fire barriers have been tested and approved by an independent laboratory.

280.9 Verify that all openings in rated fire barriers will be sealed to provide a fire resistance rating at least equal to that of the barrier in conformance with BTP CMEB 9.5-1 Section C.5.a.

280.10 Provide a design description of the types of penetration seals used, including materials of construction. Verify that tests have been conducted to qualify the resistance of the seals in accordance with BTP CMEB 9.5-1 Section C.5.a. Verify that the seals will be installed in accordance with the manufacturer's instructions.

280.11 Verify that door openings in fire barriers will be protected with equivalently rated doors, frames, and hardware. Specify that a nationally recognized independent testing laboratory has tested and labelled this equipment in accordance with BTP CMEB 9.5-1 Section C.5.a.

280.12 Verify that the closing of fire doors will be supervised by one of the measures stated in BTP CMEB Section C.5.a.

280.13 Verify that fire protection has been provided for safe shutdown so that one train of systems necessary to achieve and maintain hot shutdown conditions from either the control room or emergency control station(s) is free of fire damage and that systems necessary to achieve and maintain cold shutdown from either the control room or the emergency control station(s) can be repaired within 72 hours.

Provide an analysis which shows that one redundant train of equipment, structures, systems, and cables necessary for safe shutdown can be maintained free of fire damage by either:

a) Separation of cables and equipment and associated circuits of redundant trains by a fire barrier having a 3-hour rating. Structural steel forming a part of or supporting such fire barriers should be protected to provide fire resistance equivalent to that required of the barrier;

b) Separation of cables and equipment and associated circuits of redundant trains by a horizontal distance of more than 20 feet with no intervening combustible or fire hazards. In addition, fire detectors and an automatic fire suppression systems should be installed in the fire area; or

c) Enclosure of cable and equipment and associated circuits of one redundant train in a fire barrier having a 1-hour rating. In addition, fire detectors and an automatic fire suppression system should be installed in the fire area.

Identify those areas of the plant that will not meet the guidelines of Section C.5.b of BTP CMEB 9.5-1 and, thus alternative shutdown will be provided. Additionally provide a statement that all other areas of the plant will be in compliance with Section C.5.b of BTP CMEB 9.5-1.

280.14 Verify that redundant safety-related cable systems outside the cable spreading room are protected in accordance with BTP CMEB 9.5-1 Section C.5.e(2).

280.15 On page 9.5-10 of the FSAR, it is stated that emergency ac/dc lighting normally is powered from the Class IE buses and, in the event of loss of the Class IE source, the emergency lighting is transferred to the 125 V dc non-class IE station battery source. The emergency lighting is provided in the following locations:

a. Control room

b. Auxiliary equipment room

c. Cable spreading room

d. Static inverter room

e. 4-kV switchgear compartment

f. 13-kV switchgear compartment

g. Drywell

h. HPCI, RCIC, and RHR pump compartments (at exit doors only)

i. Diesel-generator compartments

j. Spray pond pump structure (lights with individual battery packs, at exit doors only)

k. Stairways and access corridors.

It is our position that self-contained 8-hour minimum capacity, battery powered emergency lighting units be installed in conformance with BTP CMEB 9.5-1 Section C.5.g.

280.16 Verify that fixed repeaters installed to permit use of portable radio communication units will be protected from exposure fire damage in accordance with BTP CMEB 9.5-1 Section C.5.g.

280.17 Verify that a fire detection system has been provided in accordance with BTP CMEB 9.5-1 Section C.6.a to protect all areas of the plant which contain or present an exposure fire hazard to safety related equipment and cables.

280.18 On page 2-2 of the Fire Protection Evaluation Report, it is stated that five hose cart houses will be provided which can be manually moved to any hydrant where they are needed. It is our position that permanent hose houses, equipped with hose, nozzles and other auxiliary equipment recommended in NFPA 24, be provided as needed, but at least every 1,000 feet, in accordance with BTP CMEB 9.5-1 Section C.5.b(7).

280.19 Verify that the minimum fire water requirements are dedicated by passive means in accordance BTP CMEB 9.5-1 Section C.5.b.(11).

280.20 Verify that fixed water extinguishing systems conform to the requirements of NFPA 13 and NFPA 15 in accordance with BTP CMEB 9.5-1 C.5.c(3).

280.21 It is our position that the reactor recirculation pumps be equipped with an oil collection system in conformance with Section C.7.a of BTP CMEB 9.5-1. Provide the design description of this system.

280.22 Verify that all cables in the control room meet the separation criteria and fire protection criteria detailed in BTP CMEB 9.5-1 Section C.7.b.

280.23 Verify that smoke detectors have been provided in all control room cabinets and consoles in accordance with BTP CMEB 9.5-1 Section C.7.b.

280.24 On page 9.5-12 of the FSAR, it is stated that primary fire suppression in the cable spreading room is provided by a total flooding CO_2 extinguishing system. It is our position that the primary fire suppression in the cable spreading room be an automatic water system in conformance with BTP CMEB 9.5-1 Section C.7.c.

280.25 Verify that the loss of ventilation in the safety-related battery rooms is alarmed in accordance with BTP CMEB 9.5-1 Section C.7.g.