BEFORE THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

In the Matter of	:	
	:	Docket Nos. 50-277
PHILADELPHIA ELECTRIC COMPANY	:	50-278

APPLICATION FOR AMENDMENT

OF

FACILITY OPERATING LICENSES

DPR-44 & DPR-56

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Attorneys for
Philadelphia Electric Company

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Philadelphia Electric Company, Licensee under Facility Operating Licenses DPR-44 and DPR-56 for Peach Bottom Units 2 and 3, hereby requests that the Technical Specifications contained in Appendix A of the Operating Licenses be amended by revising certain sections as indicated by a vertical bar in the margin of attached pages 3, 4, 34, 35, 145a, 146, 173, 176, and 238, and by the addition of new pages 34a, and 34b.

Correspondence from Mr. Darrell G. Eisenhut, Acting Director, Division of Operating Reactors, NRC, to All Power Reactor Licensees, dated April 10, 1980, requested the submission of a license amendment application to conform with certain sections of the model Technical

Specifications. The purpose of the requested changes is to clarify the meaning of the term Operable, to provide action statements for those Limiting Conditions of Operation that do not address multiple outages of redundant components, and to address the effects of outages of any support systems, such as electrical power or cooling water, that are relied upon to maintain the operability of the particular system. The changes in response to Mr. Eisenhut's request are shown on pages 3, ", 34, 34a, and 34b. The proposed amendment agrees with the Model Technical Specification, submitted with the letter referenced above, except where changes were necessary to reflect system designs that are plant specific, and to improve comprehension. The operational mode terminology and their definitions, as presently stated in the Peach Bottom Technical Specifications, are consistent with the Model Technical Specifications; therefore, no changes in this area are proposed.

Additionally, action statements were added or revised to clarify the requirements of several Limiting Conditions of Operation. These proposed changes are shown on pages 35, 145a, 146, 173, 176, and 238 of the Technical Specifications. The following revisions were based on the Standard Technical Specifications for General Electric Boiling Water Reactor, Nureg 0123, (Revision of April 1, 1978).

Peach Bottom Tech. Spec.		Standard Tech. Spec.
Section	Page	Section
3.6.B.3	145a	3.4.4.a.2
3.6.B.3(c)	146	3.4.4.a.2
3.7.A.6.c	173	3.6.6.4.a
3.7.C.2	176	3.6.5.1a and b

The proposed changes to page 173 delete obsolete notes regarding inerting makeup system requirements prior to the first Peach Bottom refueling outage.

Pursuant to 10 CFR 170.22, "Schedule of Fees for Facility License Amendments", Philadelphia Electric Company proposes that this Application for Amendment be considered a Class II Amendment for Unit 2, and a Class I Amendment for Unit 3, since the proposed changes are deemed to be administrative in nature.

The Plant Operation Review Committee, and the Operation and Safety Review Committee have reviewed these proposed changes to the Technical Specifications, and have concluded that they do not involve an unreviewed safety question or a significant hazards consideration, and will not endanger the health and safety of the public.

Respectfully submitted,

PHILADELPHIA ELECTRIC COMPANY

By _____
Vice President

COMMONWEALTH OF PENNSYLVANIA :
ss.
COUNTY OF PHILADELPHIA :

S. L. Daltroff, 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 Licenses 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.

S. L. Daltroff

Subscribed and sworn to
before me this 16th day
of May, 1980

Elizabeth H. Boyer
Notary Public

ELIZABETH H. BOYER
Notary Public, Phila., Phila. Co.
My Commission Expires Jan. 30, 1982

CERTIFICATE OF SERVICE

I certify that service of the foregoing Application was made upon the Board of Supervisors, Peach Bottom Township, York County, Pennsylvania, by mailing a copy thereof, via first-class mail, to Albert R. Steele, Chairman of the Board of Supervisors, R. D. No. 1, Delta, Pennsylvania 17314; upon the Board of Supervisors, Fulton Township, Lancaster County, Pennsylvania, by mailing a copy thereof, via first-class mail, to George K. Brinton, Chairman of the Board of Supervisors, Peach Bottom, Pennsylvania 17563; and upon the Board of Supervisors, Drumore Township, Lancaster County, Pennsylvania, by mailing a copy thereof, via first-class mail, to Wilmer P. Bolton, Chairman of the Board of Supervisors, R. D. No. 1, Holtwood, Pennsylvania 17532; all this 20th day of May, 1980.

Eugene J. Bradley

Eugene J. Bradley

Attorney for
Philadelphia Electric Company

1.0 DEFINITIONS (Cont'd)

the automatic protective action at a level such that the safety limits will not be exceeded. The region between the safety limit and these settings represent margin with normal operation lying below these settings. The margin has been established so that with proper operation of the instrumentation, the safety limits will never be exceeded.

Logic - A logic is an arrangement of relays, contacts and other components that produce a decision output.

(a) Initiating - A logic that receives signals from channels and produces decision outputs to the actuation logic.

(b) Actuation - A logic that receives signals (either from initiation logic or channels) and produces decision outputs to accomplish a protective action.

Logic System Functional Test - A logic system functional test means a test of all relays and contacts of a logic circuit to insure all components are operable per design intent. Where practicable, action will go to completion; i.e., pumps will be started and valves operated.

Maximum Fraction of Limiting Power Density (MFLPD) - The Maximum Fraction of Limiting Power Density (MFLPD) is the highest value existing in the core of the Fraction of Limiting Power Density (FLPD).

Minimum Critical Power Ratio (MCPR) - The minimum in-core critical power ratio corresponding to the most limiting fuel assembly in the core.

Mode of Operation - A reactor mode switch selects the proper interlocks for the operational status of the unit. The following are the modes and interlocks provided: Refuel Mode, Run Mode, Shutdown Mode, Startup/Hot Standby Mode.

OPERABLE - OPERABILITY - A system, subsystem, train, component, or device is OPERABLE or has OPERABILITY when it is capable of performing its specified function and all instrumentation, controls, normal and emergency electrical power sources, cooling or seal water supplies, lubrication systems, and other auxiliary equipment that are required for the system, subsystem, train,

1.0 DEFINITIONS (Cont'd)

component, or device to perform its function are also capable of performing their related support function.

Operating - Operating means that a system or component is performing its intended functions in its required manner.

Operating Cycle - Interval between the end of one refueling outage for a particular unit and the end of the next subsequent refueling outage for the same unit.

Primary Containment Integrity - Primary containment integrity means that the drywell and pressure suppression chamber are intact and all of the following conditions are satisfied:

1. All non-automatic containment isolation valves on lines connected to the reactor coolant system or containment which are not required to be open during accident conditions are closed. These valves may be opened to perform necessary operational activities.

2. At least one door in each airlock is closed and sealed.

3. All automatic containment isolation valves are operable or deactivated in the isolated position.

4. All blind flanges and manways are closed.

Protective Action - An action initiated by the protection system when a limit is reached. A protective action can be at a channel or system level.

Protective Function - A system protective action which results from the protective action of the channels monitoring a particular plant condition.

Rated Power - Rated power refers to operation at a reactor power of 3,293 MWt; this is also termed 100 percent power and is the maximum power level authorized by the operating license. Rated steam flow, rated coolant flow, rated neutron flux, and rated nuclear system pressure refer to the values of these parameters when the reactor is at rated power. Design power, the power to which the safety analysis applies, is 105% of rated power, which corresponds to 3440 MWt.

LIMITING CONDITIONS FOR OPERATION

3.0 APPLICABILITY

A. Limiting Conditions for Operation and action requirements are applicable during the operational conditions and other states specified for each specification.

B. Adherence to the requirements of the Limiting Condition of Operation and associated action within the specified time interval constitute compliance with the specification if the Limiting Condition for Operation is restored before the specified time interval expires.

C. If a Limiting Condition for Operation or associated action requirements cannot be satisfied, the unit shall be placed in HOT SHUTDOWN within 6 hours and in COLD SHUTDOWN within 36 hours unless corrective measures are completed to satisfy the Limiting Condition for Operation or action requirement, or until the reactor is placed in an operational condition in which the specification is not applicable. Exceptions to this requirement are stated in the individual specifications.

D. When a system, subsystem, train, component or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable, it may be considered OPERABLE for the purpose of satisfying the requirements of the Limiting Condition for Operation, provided: (1) its corresponding normal or emergency power source is OPERABLE; and (2) all of its redundant systems, subsystems, trains, components and devices are OPERABLE, or satisfy this specification. Unless both conditions (1) and (2) are satisfied, the unit shall be placed in HOT SHUTDOWN within 6 hours, and in COLD SHUTDOWN within 36 hours. This specification is not applicable in Cold Shutdown.

BASES - LIMITING CONDITION FOR OPERATION APPLICABILITY

3.0.C This specification delineates the action to be taken for circumstances not directly provided for in the action statements and whose occurrence would violate the intent of the specification. For example, a specification may require two subsystems to be operable and provides explicit action requirements if one subsystem is inoperable. Under the terms of Specification 3.0.C, if both of the required subsystems are inoperable, and an action requirement is not identified in the specifications, then the unit is to be in at least Hot Shutdown within 6 hours and in Cold Shutdown within 36 hours.

3.0.D This specification delineates what additional conditions must be satisfied to permit operation to continue, consistent with the action statements for power sources, when a normal or emergency power source is not operable. It specifically prohibits operation when one division is inoperable because its normal or emergency power source is inoperable and a system, subsystem, train, component or device in another division is inoperable for another reason.

The provisions of this specification permit the action statements associated with individual systems, subsystems, trains, components or devices to be consistent with the action statements of the associated electrical power source. It allows operation to be governed by the time limits of the action statement associated with the Limiting Condition for Operation for the normal or emergency power source, not the individual action statements for each system, subsystem, train, component or device that is determined to be inoperable solely because of the inoperability of its normal or emergency power source.

For example, Specification 3.5.F.1 provides for an out-of-service time when one of the four diesel generators is not operable. If the definition of operable were applied without consideration of Specification 3.0.D, all systems, subsystems, trains, components, and devices supplied by the inoperable emergency power source would also be inoperable. This would dictate invoking the applicable action statements for each of the applicable Limiting Conditions for Operation. However, the provisions of Specification 3.0.D permit the time limits for continued operation to be consistent with the action statement for the inoperable emergency diesel generator instead, provided the other specified conditions are satisfied.

In this case, this would mean that the corresponding normal power source must be operable (as must be the components supplied by the normal power source) and all redundant systems, subsystems, trains, components and devices in the other division must be operable, or likewise satisfy Specification 3.0.D (i.e., be capable of performing their design functions and have an emergency power source operable). If these conditions are not satisfied, shutdown is required in accordance with this specification.

In the cold shutdown condition and refuel mode, Specification 3.0.D is not applicable; and thus, the individual action statements for each applicable Limiting Condition for Operation in these conditions must be adhered to.

LIMITING CONDITIONS FOR OPERATION

3.1 REACTOR PROTECTION SYSTEM

Applicability:

Applies to the instrumentation and associated devices which initiate a reactor scram.

Objective

To assure the operability of the reactor protection system.

Specification:

A. When there is fuel in the vessel, the setpoint, minimum number of trip systems, and minimum number of instrument channels that must be operable for each position of the reactor given in Table 3.1.1.

B. The designed system response times from the opening of the sensor contact up to and including the opening of the trip actuator contacts shall not exceed 100 milliseconds. Otherwise, the affected trip system shall be placed in the tripped condition, or the action listed in Table 3.1.1 for the specific trip function shall be taken, unless a safety evaluation, approved by PORC and the O&SR Committee, has confirmed that the higher response time will not result in transient parameters in excess of the Safety Limits specified in sections 1.1 and 1.2 of these Technical Specifications.

SURVEILLANCE REQUIREMENTS

4.1 REACTOR PROTECTION SYSTEM

Applicability:

Applies to the surveillance of the instrumentation and associated devices which initiate reactor scram.

Objective

To specify the type and frequency of surveillance to be applied to the protection instrumentation.

Specification:

A. Instrumentation systems shall be functionally tested and calibrated as indicated in Tables 4.1.1 and 4.1.2 respectively.

B. Daily, during reactor power operation, the maximum fraction of limiting density factor shall be checked and the SCRAM and APRM Rod Block settings given by equations in Specification 2.1.A.1 and 2.1.B shall be calculated if the maximum fraction of the limiting power density exceeds the fraction of rated power.

LIMITING CONDITIONS FOR OPERATION

3.6.B Coolant Chemistry

2. The following limits shall be observed for reactor water quality prior to any startup and when operating at rated pressure:

a) Conductivity at 25 °C — 5.0 umho/cm
b) Chloride concentration — 0.2 ppm

3. Reactor water Quality may exceed the limits of Specification 3.6.B.2 only for the time limits specified below. If these time limits or the maximum quality limits specified are exceeded, the unit shall be placed in Hot Shutdown within 12 hours and in Cold Shutdown within 36 hours, unless a safety analysis, approved by PORC and O&SR Committee, has confirmed that the higher impurity levels will not damage primary system materials.

a) Conductivity at 25 °C
Time above 5 umho/cm — 1 weeks/year
Maximum limit — 10 umhos/cm

SURVEILLANCE REQUIREMENTS

4.6.B. Coolant Chemistry

2. A sample of reactor coolant shall be analyzed:

a) At least every 4 days at steaming rates above 100,000 pounds per hour for conductivity and chloride ion content.

b) At least every day during startups and at steaming rates below 100,000 pounds per hour for conductivity and chloride ion content.

c) At least every 4 hours during startups and at steaming rates below 100,000 pounds per hours for chloride ion content if the conductivity is above 0.5 umho/cm or if it increases at a rate of 0.2 umho/cm/hr or more.

d) At least once every week for total iodine concentration when the air ejector offgas monitor indicates that the stack release rate would be in excess of 100,000 uci/sec assuming a 30 min. holdup.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.6.B Coolant Chemistry (Cont'd)	4.6.B Coolant Chemistry (Cont'd)
b) Chloride Concentration Time above 0.2 ppm 2 weeks/year Maximum limit 1.0 ppm	
c) pH During operations, if the conductivity exceeds 1.0 umho/cm, pH shall be measured and brought within the 5.6 to 8.6 range within 24 hours. If the pH cannot be corrected, or if the pH is outside a range of 4 to 10, the unit shall be placed in Hot Shutdown within 12 hours and in Cold Shutdown within 36 hours.	
C. Coolant Leakage 1. Any time irradiated fuel is in the reactor vessel and reactor coolant temperature is above 212 degree F, reactor coolant leakage to the primary containment from unidentified sources shall not exceed 5 gpm. In addition, the total reactor coolant system leakage into the primary containment shall not exceed 25 gpm. 2. Both the sump and air sampling systems shall be operable during reactor power operation. From and after the date that one of these systems is made or found to be inoperable for any reason, reactor power operation is permissible only during the succeeding seven days unless the system is made operable sooner. 3. If the conditions in 1 or 2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in Cold Shutdown Condition within 24 hours.	C. Coolant Leakage 1. Reactor coolant system leakage shall be checked by the sump pump and air sampling system and recorded at least once per day.

LIMITING CONDITIONS FOR OPERATION

3.7.A.6.c. (Cont'd)

the unit shall be in Hot Shutdown within 12 hours.

d. A 30 psig limit is the maximum containment repressurization allowable using the CAD system. Venting via the SBGT system to this stack must be initiated at 30 psig following the initial peak pressure at 49.1 psig.

SURVEILLANCE REQUIREMENTS

4.7.A.6.a (Cont'd)

The CAD system H2 and O2 analyzers shall be tested for operability using standard bottled H2 and O2 once per month and shall be calibrated once per 6 months. The atmospheric analyzing system shall be functionally tested once per operating cycle in conjunction with the specification 4.7.A.6.a. Should one of the two H2 or O2 analyzers serving the drywell or suppression pool be found inoperable the remaining analyzer of the same type serving the same compartment shall be testd for operability once per week until the defective analyzer is made operable.

LIMITING CONDITIONS FOR OPERATION

3.7.C Secondary Containment

1. Secondary containment integrity shall be maintained during all modes of plant operation except when all of the following conditions are met.

a) the reactor is subcritical and and Specification 3.3.A is met.
b) the reactor water temperatures is below 212 Degrees F and the reactor coolant system is vented.
c) No activity is being performed which can reduce the shutdown margin below that specified in Specificiation 3.3.A.
d) The fuel cask or irradiated fuel is not being moved in the reactor building.

2. If Specification 3.7.C.1 cannot be met, the unit shall be placed in Hot Shutdown within 12 hours and in Cold Shutdown within 36 hours, irradiated fuel handling operations in the secondary containment, core alterations, and activities which could reduce the shutdown margin shall be suspended.

SURVEILLANCE REQUIREMENTS

4.7.C Secondary Containment

1. Secondary containment surveillance shall be performed as indicated below:

a) A preoperational secondary containment capability test shall be conducted after isolating the reactor building and placing either standby gas treatment system filter train in operation. Such tests shall demonstrate the capability to maintain 1/4 inch of water vacuum under calm wind (<5 mph) conditions with a filter train flow rate of not more than 10,500 cfm.
b) Additional tests shall be performed during the first operating cycle under an adequate number of different environmental wind conditions to enable valid extrapolation of the test results.
c) Secondary containment capability to maintain 1/4 inch of water vacuum under calm wind (<5 mph) conditions with a filter train flow rate of not more than 10,500 cfm, shall be demonstrated at each refueling outage prior to refueling.
d) After a secondary containment violation is determined, the standby gas treatment system will be operated immediately after the affected zones are isolated from the remainder of the secondary containment to confirm its ability to maintain the remainder of the secondary containment at 1/4 inch of water negative pressure under calm wind conditions.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
C. Level Instrumentation	C. Level Instrumentation
1. Two of the three river water level indicators in the control room shall be continuously operable.	1. River water level shall be logged once each shift.
2. Should less than 2 indicators be available, prompt action shall be taken to restore at least 2 indicators to continuous operation. Shutdown of the reactor is not required.	2. Operability shall be checked once each shift by visual observation during level logging