June 14, 1989

Docket No.: 50-352

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MO'Brien		

Mr. George A. Hunger, Jr.
Director-Licensing
Philadelphia Electric Company
Correspondence Control Desk
P. O. Box 7520
Philadelphia, Pennsylvania 19101

Dear Mr. Hunger:

SUBJECT: TIE-IN OF UNIT 2 SGTS AND HVAC SYSTEMS (TAC NO. 71951)

RE: LIMERICK GENERATING STATION, UNIT 1

The Commission has issued the enclosed Amendment No. 23 to Facility Operating License No. NPF-39 for the Limerick Generating Station, Unit 1. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated January 27, 1989.

This amendment changes the Unit 1 Technical Specifications (TSs) to reflect the completion and tie-in of the Unit 2 Standby Gas Treatment System (SGTS) and the Unit 2 Refueling Area Heating, Ventilating and Air Conditioning (HVAC) System. The changes to the TSs allow the inclusion of Unit 2 equipment that will be relied upon or required to be operable to support the operation of Unit 1 when Unit 2 is issued an Operating License.

A copy of our Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by
Richard J. Clark

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

Enclosures:
1. Amendment No. 23 to License No. NPF-39
2. Safety Evaluation

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1/1

cc w/enclosures:
See next page

[HUNG LETTER]

PDI-2/LA	PDI-2/PM	OGC	PDI-2/D	C/SPLB
MO'Brien	RClark:tr	S H Lewis	WButler	JWermiel
/89	05/24/89	6/15/89	6/14/89	/89

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PDR ADOCK 05000352
P PDC

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

June 14, 1989

Docket No.: 50-352

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P. O. Box 7520
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Richard J. Clark, Project Manager
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1. Amendment No. 23 to License No. NPF-39
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See next page

Mr. George A. Hunger, Jr.
Philadelphia Electric Company

Limerick Generating Station
Units 1 & 2

cc:

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

PHILADELPHIA ELECTRIC COMPANY

DOCKET NO. 50-352

LIMERICK GENERATING STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 23
License No. NPF-39

1. The Nuclear Regulatory Commission (the Commission) has found that

   A. The application for amendment by Philadelphia Electric Company (the licensee) dated January 27, 1989, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-39 is hereby amended to read as follows:

   Technical Specifications

   The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 23 , are hereby incorporated into this license. Philadelphia Electric Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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P PDC

3. This license amendment is effective upon issuance of an operating license to Limerick Generating Station, Unit No. 2.

FOR THE NUCLEAR REGULATORY COMMISSION

/s/

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 14, 1989

PDI-2/LA MO'Brien 6/14/89	PDI-2/PM RClark:tr 05/24/89	OGC S H Lewis 6/5/89
PDI-2/D WButler 6/14/89		

3. This license amendment is effective upon issuance of an operating license to Limerick Generating Station, Unit No. 2.

FOR THE NUCLEAR REGULATORY COMMISSION

Walter R. Butler

Walter R. Butler, Director
Project Directorate I-2
Division of Reactor Projects I/II

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 14, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 23

FACILITY OPERATING LICENSE NO. NPF-39

DOCKET NO. 50-352

Replace the following pages of the Appendix A Technical Specifications with the attached page. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change. Overleaf pages are provided to maintain document completeness.*

Remove	Insert
3/4 3-15	3/4 3-15
3/4 3-16	3/4 3-16
3/4 3-21	3/4 3-21*
3/4 3-22	3/4 3-22
3/4 3-25	3/4 3-25
3/4 3-26	3/4 3-26*
3/4 3-31	3/4 3-31
3/4 3-32	3/4 3-32*
3/4 6-43	3/4 6-43
3/4 6-44	3/4 6-44*
3/4 6-47	3/4 6-47*
3/4 6-48	3/4 6-48
3/4 6-49	3/4 6-49
3/4 6-50	3/4 6-50*
3/4 6-51	3/4 6-51
3/4 6-51a	3/4 6-51a

TABLE 3.3.2-1 (Continued)
ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION	ISOLATION SIGNAL (a),(c)	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (b)	APPLICABLE OPERATIONAL CONDITION	ACTION
7. SECONDARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level Low, Low - Level 2	B	2	1, 2, 3	25
b. Drywell Pressure - High	H	2	1, 2, 3	25
c.1. Refueling Area Unit 1 Ventilation Exhaust Duct Radiation - High	R	2	*#	25
2. Refueling Area Unit 2 Ventilation Exhaust Duct Radiation - High	R	2	*#	25
d. Reactor Enclosure Ventilation Exhaust Duct Radiation - High	S	2	1, 2, 3	25
e. Outside Atmosphere To Reactor Enclosure Δ Pressure - Low	U	1	1, 2, 3	25
f. Outside Atmosphere To Refueling Area Δ Pressure - Low	T	1	*	25
g. Reactor Enclosure Manual Initiation	NA	1	1, 2, 3	24
h. Refueling Area Manual Initiation Initiation	NA	1	*	25

TABLE 3.3.2-1 (Continued)
ISOLATION ACTUATION INSTRUMENTATION
ACTION STATEMENTS

ACTION 20 - Be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

ACTION 21- Be in at least STARTUP with the associated isolation valves closed within 6 hours or be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within the next 24 hours.

ACTION 22 - Be in at least STARTUP within 6 hours.

ACTION 23 - In OPERATIONAL CONDITION 1 or 2, verify the affected system isolation valves are closed within 1 hour and declare the affected system inoperable. In OPERATIONAL CONDITION 3, be in at least COLD SHUTDOWN within 12 hours.

ACTION 24 - Restore the manual initiation function to OPERABLE status within 8 hours or close the affected system isolation valves within the next hour and declare the affected system inoperable or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

ACTION 25 - Establish SECONDARY CONTAINMENT INTEGRITY with the standby gas treatment system operating within 1 hour.

ACTION 26 - Close the affected system isolation valves within 1 hour.

TABLE NOTATIONS

* When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

** May be bypassed under administrative control, with all turbine stop valves closed.

\# During operation of the associated Unit 1 or Unit 2 ventilation exhaust system.

(a) See Specification 3.6.3, Table 3.6.3-1 for primary containment isolation valves which are actuated by these isolation signals.

(b) A channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the channel or trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter. In addition, for the HPCI system and RCIC system isolation, provided that the redundant isolation valve, inboard or outboard, as applicable, in each line is OPERABLE and all required actuation instrumentation for that valve is OPERABLE, one channel may be placed in an inoperable status for up to 8 hours for required surveillance without placing the channel or trip system in the tripped condition.

(c) Actuates secondary containment isolation valves shown in Table 3.6.5.2.1-1 and/or 3.6.5.2.2-1 and signals B, H, S, U, R and T also start the standby gas treatment system.

(d) RWCU system inlet outboard isolation valve closes on SLCS "B" initiation. RWCU system inlet inboard isolation valve closes on SLCS "A" or SLCS "C" initiation.

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
6. PRIMARY CONTAINMENT ISOLATION		
a. Reactor Vessel Water Level		
1. Low, Low - Level 2	≥ -38 inches*	≥ -45 inches
2. Low, Low, Low, Level 1	≥ -129 inches*	≥ -136 inches
b. Drywell Pressure - High	≤ 1.68 psig	≤ 1.88 psig
c. North Stack Effluent Radiation - High	≤ 2.1 μCi/cc	≤ 4.0 μCi/cc
d. Deleted		
e. Reactor Enclosure Ventilation Exhaust Duct - Radiation - High	≤ 1.35 mR/h	≤ 1.5 mR/h
f. Outside Atmosphere To Reactor Enclosure Δ Pressure - Low	≥ 0.1 inch	≥ 0.0 inch
g. Deleted		
h. Drywell Pressure - High/ Reactor Pressure - Low	≤ 1.68 psig/ ≥ 455 psig (decreasing)	≤ 1.88 psig/ ≥ 435 psig (decreasing)
i. Primary Containment Instrument Gas to Drywell Δ Pressure-Low	≥ 2.0 psig	≥ 1.9 psig
j. Manual Initiation	N.A.	N.A.

TABLE 3.3.2-2 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
7. SECONDARY CONTAINMENT ISOLATION		
a. Reactor Vessel Water Level - Low, Low - Level 2	≥ -38 inches*	≥ -45 inches
b. Drywell Pressure - High	≤ 1.68 psig	≤ 1.88 psig
c.1. Refueling Area Unit 1 Ventilation Exhaust Duct Radiation - High	≤ 2.0 mR/h	≤ 2.2 mR/h
2. Refueling Area Unit 2 Ventilation Exhaust Duct Radiation - High	≤ 2.0 mR/h	≤ 2.2 mR/h
d. Reactor Enclosure Ventilation Exhaust Duct Radiation - High	≤ 1.35 mR/h	≤ 1.5 mR/h
e. Outside Atmosphere To Reactor Enclosure Δ Pressure - Low	≥ 0.1" inch	≥ 0.0" inch
f. Outside Atmosphere To Refueling Area Δ Pressure - Low	≥ 0.1" inch	≥ 0.0" inch
g. Reactor Enclosure Manual Initiation	N.A.	N.A.
h. Refueling Area Manual Initiation	N.A.	N.A.

*See Bases Figure B 3/4 3-1.

**The low setpoints are for the RWCU Heat Exchanger Rooms; the high setpoints are for the pump rooms.

TABLE 3.3.2-3 (Continued)

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

TRIP FUNCTION	RESPONSE TIME (Seconds)#
6. PRIMARY CONTAINMENT ISOLATION	
a. Reactor Vessel Water Level	
1) Low, Low - Level 2	$\leq 13^{(a)}$
2) Low, Low, Low - Level 1	$\leq 13^{(a)}$
b. Drywell Pressure - High	$\leq 13^{(a)}$
c. North Stack Effluent Radiation - High	N.A.
d. Deleted	
e. Reactor Enclosure Ventilation Exhaust Duct - Radiation - High	N.A.
f. Outside Atmosphere To Reactor Enclosure Δ Pressure - Low	N.A.
g. Deleted	
h. Drywell Pressure - High/ Reactor Pressure - Low	N.A.
i. Primary Containment Instrument Gas to Drywell Δ Pressure-Low	N.A.
j. Manual Initiation	N.A.
7. SECONDARY CONTAINMENT ISOLATION	
a. Reactor Vessel Water Level Low, Low - Level 2	N.A.
b. Drywell Pressure - High	N.A.
c.1. Refueling Area Unit 1 Ventilation Exhaust Duct Radiation - High	N.A.
2. Refueling Area Unit 2 Ventilation Exhaust Duct Radiation - High	N.A.
d. Reactor Enclosure Ventilation Exhaust Duct Radiation - High	N.A.
e. Outside Atmosphere to Reactor Enclosure Δ Pressure - Low	N.A.

TABLE 3.3.2-3 (Continued)

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

TRIP FUNCTION	RESPONSE TIME (Seconds)#
f. Outside Atmosphere To Refueling Area Δ Pressure - Low	N.A.
g. Reactor Enclosure Manual Initiation	N.A.
h. Refueling Area Manual Initiation	N.A.

TABLE NOTATIONS

(a) Isolation system instrumentation response time specified includes 10 seconds diesel generator starting and 3 seconds for sequence loading delays.

(b) Radiation detectors are exempt from response time testing. Response time shall be measured from detector output or the input of the first electronic component in the channel.

*Isolation system instrumentation response time for MSIV only. No diesel generator delays assumed for MSIVs.

**Isolation system instrumentation response time for associated valves except MSIVs.

#Isolation system instrumentation response time specified for the Trip Function actuating each valve group shall be added to isolation time shown in Tables 3.6.3-1, 3.6.5.2.1-1 and 3.6.5.2.2-1 for valves in each valve group to obtain ISOLATION SYSTEM RESPONSE TIME for each valve.

##With 45 second time delay.

TABLE 4.3.2.1-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TRIP FUNCTION	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
7. SECONDARY CONTAINMENT ISOLATION				
a. Reactor Vessel Water Level Low, Low - Level 2	S	M	R	1, 2, 3
b. Drywell Pressure - High	S	M	R	1, 2, 3
c.1. Refueling Area Unit 1 Ventilation Exhaust Duct Radiation - High	S	M	R	*#
2. Refueling Area Unit 2 Ventilation Exhaust Duct Radiation - High	S	M	R	*#
d. Reactor Enclosure Ventilation Exhaust Duct Radiation - High	S	M	R	1, 2, 3
e. Outside Atmosphere To Reactor Enclosure Δ Pressure - Low	N.A.	M	Q	1, 2, 3
f. Outside Atmosphere To Refueling Area Δ Pressure - Low	N.A.	M	Q	*
g. Reactor Enclosure Manual Initiation	N.A.	R	N.A.	1, 2, 3
h. Refueling Area Manual Initiation	N.A.	R	N.A.	*

*When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

**When not administratively bypassed and/or when any turbine stop valve is open.
#During operation of the associated Unit 1 or Unit 2 ventilation exhaust system.

3/4.3.3 EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

LIMITING CONDITION FOR OPERATION

3.3.3 The emergency core cooling system (ECCS) actuation instrumentation channels shown in Table 3.3.3-1 shall be OPERABLE with their trip setpoints set consistent with the values shown in the Trip Setpoint column of Table 3.3.3-2 and with EMERGENCY CORE COOLING SYSTEM RESPONSE TIME as shown in Table 3.3.3-3.

APPLICABILITY: As shown in Table 3.3.3-1.

ACTION:

a. With an ECCS actuation instrumentation channel trip setpoint less conservative than the value shown in the Allowable Values column of Table 3.3.3-2, declare the channel inoperable until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value.

b. With one or more ECCS actuation instrumentation channels inoperable, take the ACTION required by Table 3.3.3-1.

c. With either ADS trip system subsystem inoperable, restore the inoperable trip system to OPERABLE status within:

   1. 7 days, provided that the HPCI and RCIC systems are OPERABLE.

   2. 72 hours.

   Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and reduce reactor steam dome pressure to less than or equal to 100 psig within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.3.3.1 Each ECCS actuation instrumentation channel shall be demonstrated OPERABLE by the performance of the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION operations for the OPERATIONAL CONDITIONS and at the frequencies shown in Table 4.3.3.1-1.

4.3.3.2 LOGIC SYSTEM FUNCTIONAL TESTS and simulated automatic operation of all channels shall be performed at least once per 18 months.

4.3.3.3 The ECCS RESPONSE TIME of each ECCS trip function shown in Table 3.3.3-3 shall be demonstrated to be within the limit at least once per 18 months. Each test shall include at least one channel per trip system such that all channels are tested at least once every N times 18 months where N is the total number of redundant channels in a specific ECCS trip system.

NOTES (Continued)

21. Automatic isolation signal causes TIP to retract; ball valve closes when probe is fully retracted.

22. Isolation barrier remains water filled or a water seal remains in the line post-LOCA. Isolation valve may be tested with water. Isolation valve leakage is not included in 0.60 La total Type B & C tests.

23. Valve does not receive an isolation signal. Valves will be open during Type A test. Type C test not required.

24. Both isolation signals required for valve closure.

25. Deleted

26. Valve stroke times listed are maximum times verified by testing per Specification 4.0.5 acceptance criteria. The closure times for isolation valves in lines in which high-energy line breaks could occur are identified with a single asterisk. The closure times for isolation valves in lines which provide an open path from the containment to the environs are identified with a double asterisk.

27. The reactor vessel head seal leak detection line (penetration 29A) excess flow check valve is not subject to OPERABILITY testing. This valve will not be exposed to primary system pressure except under the unlikely conditions of a seal failure where it could be partially pressurized to reactor pressure. Any leakage path is restricted at the source; therefore, this valve need not be OPERABILITY tested.

28. (DELETED)

29. Valve may be open during normal operation; capable of manual isolation from control room. Position will be controlled procedurally.

30. Valve normally open, closes on scram signal.

31. Valve 41-1016 is an outboard isolation barrier for penetrations X-9A, B and X-44. Leakage through valve 41-1016 is included in the total for penetration X-44 only.

32. Feedwater long-path recirculation valves are sealed closed whenever the reactor is critical and reactor pressure is greater than 600 psig. The valves are expected to be opened only in the following instances:

    a. Flushing of the condensate and feedwater systems during plant startup.

    b. Reactor pressure vessel hydrostatic testing, which is conducted following each refueling outage prior to commencing plant startup.

    Therefore, valve stroke timing in accordance with Specification 4.0.5 is not required.

33. Valve also constitutes a Unit 2 Reactor Enclosure Secondary Containment Automatic Isolation Valve and a Refueling Area Secondary Containment Automatic Isolation Valve as shown in Table 3.6.5.2.1-1 and Table 3.6.5.2.2-1 respectively.

3/4.6.4 VACUUM RELIEF

SUPPRESSION CHAMBER - DRYWELL VACUUM BREAKERS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Each pair of suppression chamber - drywell vacuum breakers shall be OPERABLE and closed.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

a. With one or more vacuum breakers in one pair of suppression chamber - drywell vacuum breakers inoperable for opening but known to be closed, restore the inoperable pair of vacuum breakers to OPERABLE status within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one suppression chamber - drywell vacuum breaker open, verify the other vacuum breaker in the pair to be closed within 2 hours; restore the open vacuum breaker to the closed position within 72 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

c. With one position indicator of any suppression chamber - drywell vacuum breaker inoperable:

   1. Verify the other vacuum breaker in the pair to be closed within 2 hours and at least once per 15 days thereafter, or

   2. Verify the vacuum breaker(s) with the inoperable position indicator to be closed by conducting a test which demonstrates that the ΔP is maintained at greater than or equal to 0.7 psi for one hour without makeup within 24 hours and at least once per 15 days thereafter.

   Otherwise, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

3/4.6.5 SECONDARY CONTAINMENT

REFUELING AREA SECONDARY CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.5.1.2 REFUELING AREA SECONDARY CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: OPERATIONAL CONDITION *.

ACTION:

Without REFUELING AREA SECONDARY CONTAINMENT INTEGRITY, suspend handling of irradiated fuel in the secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.5.1.2 REFUELING AREA SECONDARY CONTAINMENT INTEGRITY shall be demonstrated by:

a. Verifying at least once per 24 hours that the pressure within the refueling area secondary containment is greater than or equal to 0.25 inch of vacuum water gauge.

b. Verifying at least once per 31 days that:

   1. All refueling area secondary containment equipment hatches and blowout panels are closed and sealed.

   2. At least one door in each access to the refueling area secondary containment is closed.

   3. All refueling area secondary containment penetrations not capable of being closed by OPERABLE secondary containment automatic isolation dampers/valves and required to be closed during accident conditions are closed by valves, blind flanges, slide gate dampers or deactivated automatic dampers/valves secured in position.

c. At least once per 18 months:

   Operating one standby gas treatment subsystem for one hour and maintaining greater than or equal to 0.25 inch of vacuum water gauge in the refueling area secondary containment at a flow rate not exceeding 764 cfm.

*When irradiated fuel is being handled in the refueling area secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

REACTOR ENCLOSURE SECONDARY CONTAINMENT AUTOMATIC ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.5.2.1 The reactor enclosure secondary containment ventilation system automatic isolation valves shown in Table 3.6.5.2.1-1 shall be OPERABLE with isolation times less than or equal to the times shown in Table 3.6.5.2.1-1.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3.

ACTION:

With one or more of the reactor secondary containment ventilation system automatic isolation valves shown in Table 3.6.5.2.1-1 inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and within 8 hours either:

a. Restore the inoperable valves to OPERABLE status, or

b. Isolate each affected penetration by use of at least one deactivated valve secured in the isolation position, or

c. Isolate each affected penetration by use of at least one closed manual valve, blind flange or slide gate damper.

Otherwise, in OPERATIONAL CONDITION 1, 2 or 3, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.2.1 Each reactor enclosure secondary containment ventilation system automatic isolation valve shown in Table 3.6.5.2.1-1 shall be demonstrated OPERABLE:

a. Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by cycling the valve through at least one complete cycle of full travel and verifying the specified isolation time.

b. At least once per 18 months by verifying that on a containment isolation test signal each isolation valve actuates to its isolation position.

c. By verifying the isolation time to be within its limit at least once per 92 days.

TABLE 3.6.5.2.1-1

REACTOR ENCLOSURE SECONDARY CONTAINMENT VENTILATION SYSTEM AUTOMATIC ISOLATION VALVES

REACTOR ENCLOSURE (ZONE I) VALVE FUNCTION	MAXIMUM ISOLATION TIME (Seconds)	ISOLATION SIGNALS[a]
1. Reactor Enclosure Ventilation Supply Valve HV-76-107	5	B,H,S,U
2. Reactor Enclosure Ventilation Supply Valve HV-76-108	5	B,H,S,U
3. Reactor Enclosure Ventilation Exhaust Valve HV-76-157	5	B,H,S,U
4. Reactor Enclosure Ventilation Exhaust Valve HV-76-158	5	B,H,S,U
5. Reactor Enclosure Equipment Compartment Exhaust Valve HV-76-141	5	B,H,S,U
6. Reactor Enclosure Equipment Compartment Exhaust Valve HV-76-142	5	B,H,S,U
7. Drywell Purge Exhaust Valve HV-76-030	5	B,H,S,U,R,T
8. Drywell Purge Exhaust Valve HV-76-031	5	B,H,S,U,R,T
9. Drywell Purge Exhaust Inboard Valve HV-57-214 (Unit 2)	5	B,H,S,U,W,R,T
10. Drywell Purge Exhaust Outboard Valve HV-57-215 (Unit 2)	6	B,H,S,U,W,R,T
11. Suppression Pool Purge Exhaust Inboard Valve HV-57-204 (Unit 2)	5	B,H,S,U,W,R,T
12. Suppression Pool Purge Exhaust Outboard Valve HV-57-212 (Unit 2)	6	B,H,S,U,W,R,T

[a] See Specification 3.3.2, Table 3.3.2-1, for isolation signals that operate each automatic valve.

REFUELING AREA SECONDARY CONTAINMENT AUTOMATIC ISOLATION VALVES

LIMITING CONDITION FOR OPERATION

3.6.5.2.2 The refueling area secondary containment ventilation system automatic isolation valves shown in Table 3.6.5.2.2-1 shall be OPERABLE with isolation times less than or equal to the times shown in Table 3.6.5.2.2-1.

APPLICABILITY: OPERATIONAL CONDITION *.

ACTION:

With one or more of the refueling area secondary containment ventilation system automatic isolation valves shown in Table 3.6.5.2.2-1 inoperable, maintain at least one isolation valve OPERABLE in each affected penetration that is open and within 8 hours either:

a. Restore the inoperable valves to OPERABLE status, or

b. Isolate each affected penetration by use of at least one deactivated valve secured in the isolation position, or

c. Isolate each affected penetration by use of at least one closed manual valve, blind flange or slide gate damper.

Otherwise, in Operational Condition *, suspend handling of irradiated fuel in the refueling area secondary containment, CORE ALTERATIONS and operations with a potential for draining the reactor vessel. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.6.5.2.2 Each refueling area secondary containment ventilation system automatic isolation valve shown in Table 3.6.5.2.2-1 shall be demonstrated OPERABLE:

a. Prior to returning the valve to service after maintenance, repair or replacement work is performed on the valve or its associated actuator, control or power circuit by cycling the valve through at least one complete cycle of full travel and verifying the specified isolation time.

b. At least once per 18 months by verifying that on a containment isolation test signal each isolation valve actuates to its isolation position.

c. By verifying the isolation time to be within its limit at least once per 92 days.

*When irradiated fuel is being handled in the refueling area secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

TABLE 3.6.5.2.2-1

REFUELING AREA SECONDARY CONTAINMENT VENTILATION SYSTEM
AUTOMATIC ISOLATION VALVES

REFUELING AREA (ZONE III) VALVE FUNCTION	MAXIMUM ISOLATION TIME (Seconds)	ISOLATION SIGNALS[a]
1. Refueling Area Ventilation Supply Valve HV-76-117 (Unit 1)	5	R,T
2. Refueling Area Ventilation Supply Valve HV-76-118 (Unit 1)	5	R,T
3. Refueling Area Ventilation Exhaust Valve HV-76-167 (Unit 1)	5	R,T
4. Refueling Area Ventilation Exhaust Valve HV-76-168 (Unit 1)	5	R,T
5. Refueling Area Ventilation Supply Valve HV-76-217 (Unit 2)	5	R,T
6. Refueling Area Ventilation Supply Valve HV-76-218 (Unit 2)	5	R,T
7. Refueling Area Ventilation Exhaust Valve HV-76-267 (Unit 2)	5	R,T
8. Refueling Area Ventilation Exhaust Valve HV-76-268 (Unit 2)	5	R,T
9. Drywell Purge Exhaust Valve HV-76-030	5	B,H,S,U,R,T
10. Drywell Purge Exhaust Valve HV-76-031	5	B,H,S,U,R,T
11. Drywell Purge Exhaust Inboard Valve HV-57-114 (Unit 1)	5	B,H,S,U,W,R,T
12 Drywell Purge Exhaust Outboard Valve HV-57-115 (Unit 1)	6	B,H,S,U,W,R,T
13 Suppression Pool Purge Exhaust Inboard Valve HV-57-104 (Unit 1)	5	B,H,S,U,W,R,T
14 Suppression Pool Purge Exhaust Outboard Valve HV-57-112 (Unit 1)	6	B,H,S,U,W,R,T

TABLE 3.6.5.2.2-1 (Continued)

REFUELING AREA SECONDARY CONTAINMENT VENTILATION SYSTEM
AUTOMATIC ISOLATION VALVES

REFUELING AREA (ZONE III) VALVE FUNCTION	MAXIMUM ISOLATION TIME (Seconds)	ISOLATION SIGNALS[a]
15. Drywell Purge Exhaust Inboard Valve HV-57-214 (Unit 2)	5	B,H,S,U,W,R,T
16. Drywell Purge Exhaust Outboard Valve HV-57-215 (Unit 2)	6	B,H,S,U,W,R,T
17. Suppression Pool Purge Exhaust Inboard Valve HV-57-204 (Unit 2)	5	B,H,S,U,W,R,T
18. Suppression Pool Purge Exhaust Outboard Valve HV-57-212 (Unit 2)	6	B,H,S,U,W,R,T

(a) See Specification 3.3.2, Table 3.3.2-1, for isolation signals that operate each automatic isolation valve.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 23 TO FACILITY OPERATING LICENSE NO. NPF-39

PHILADELPHIA ELECTRIC COMPANY

LIMERICK GENERATING STATION, UNIT 1

DOCKET NO. 50-352

1.0 INTRODUCTION

By letter dated January 27, 1989, Philadelphia Electric Company (the licensee) requested an amendment to Facility Operating License No. NPF-39 for the Limerick Generating Station, Unit 1. The proposed amendment would change the Unit 1 Technical Specifications (TSs) to reflect the completion and tie-in of the Unit 2 Standby Gas Treatment System (SGTS) and the Unit 2 Refueling Area Heating, Ventilating and Air Conditioning (HVAC) System. The changes to the TSs allow the inclusion of Unit 2 equipment that will be relied upon or required to be operable to support the operation of Unit 1 when Unit 2 is issued an Operating License.

2.0 DISCUSSION

The SGTS is a redundant safety-related system that is designed to reduce radioactive halogen and particulate concentrations in (1) gases that may be present in the secondary containment after a Loss-of-Cooling-Accident (LCOA), and (2) gases present after a postulated Fuel Handling Accident in the refueling floor area before the gases are discharged to the environment. The SGTS is a common system that serves both the Unit 1 and the Unit 2 Reactor Enclosure and the Common Refueling Area. The SGTS is designed to draw down and maintain a negative pressure in these areas during a secondary containment isolation. The SGTS also functions to reduce halogen and particulate concentrations purged from the primary containment through the drywell or suppression pool exhaust lines.

The SGTS is designed as a shared system for filtration and treatment of both the Unit 1 and the Unit 2 Reactor Enclosure atmospheres and the refueling area. When the tie-in of the Unit 2 Reactor Enclosure to the SGTS is complete, that portion of the Unit 2 ductwork will form a part of the secondary containment isolation boundary for the Unit 1 Reactor Enclosure. The Unit 2 Refueling Area HVAC system, as well as the existing Unit 1 Refueling Area HVAC system, has exhaust duct radiation monitors which provide input to the Refueling Area Secondary Containment Isolation System. An isolation signal from either unit's exhaust duct radiation monitors will cause both the Unit 1 and Unit 2 Refueling Area HVAC systems to isolate. The Unit 2 radiation monitors located in the Refueling Area HVAC exhaust duct are not presently connected to the Unit 1 isolation logic. Completion of the tie-in would require the Unit 2 HVAC

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isolation activation instrumentation, isolation valves, and the exhaust duct radiation monitors to be operable for the appropriate Operational conditions.

Specifically, the proposed changes are as follows:

a. Technical Specification Table 3.3.2-1, Table 3.3.2-2, Table 3.3.2-3, and 4.3.2.1-1 would be revised to include the "Refueling Area Unit 2 Ventilation Exhaust Duct Radiation - High" radiation monitors. The Limiting Conditions for Operation, setpoints, and Surveillance Requirements for these monitors are the same as those for the existing Unit 1 radiation monitors contained in the Unit 1 Technical Specifications. Since the Refueling Area is common to both units, operation of either Unit 1 or 2 Refueling Area Ventilation System represents a potential exhaust pathway and the associated radiation monitors should be operable. Therefore the Applicability is revised to include the condition "During the operation of the associated ventilation exhaust system."

b. Technical Specification Table 3.6.5.2.2-1 Footnote ** is being deleted and the associated lines will now be required to have operable isolation capability as Unit 2 construction is being completed. (The footnote now states that the lines are blanked off during Unit 2 construction).

c. Technical Specification Table 3.6.5.2.1-1 would be revised to include the Unit 2 drywell purge exhaust valves (HV-57-214 and HV-57-215) and suppression purge exhaust valves (HV-57-204 and HV-57-212). These valves are required to be operable in order to maintain the Unit 1 Reactor Enclosure secondary containment isolation boundary. Any breech of this isolation boundary to an area outside of the Unit 1 Reactor Enclosure affects the ability of the SGTS to perform its design functions; therefore, these valves are added to the list of Reactor Enclosure Secondary Containment Ventilation System Automatic Isolation Valves, Table 3.6.5.2.1-1. In addition, since these drywell and suppression pool purge exhaust valves also provide a primary containment function, their dual function, as Reactor Enclosure isolation valves for the other unit will be reflected in Table Notation 33 to Table 3.6.3-1.

d. Technical Specification Table 3.6.5.2.1, Action C, is being revised to include a reference to slide gate dampers. These slide gate dampers can be used to isolate the drywell and/or suppression pool exhaust lines in the event that the exhaust valves are not operable. The inclusion of the slide gate dampers into Specification 3.6.5.2.1 provides manual isolation capability in these lines.

e. Minor administrative changes were made to clarify that the requirements applied to either Unit 1 or Unit 2, and to clarify the title of the ventilation exhaust system. These changes provide no change in technical content of the specifications proposed by the licensee and no reduction in the margin of safety.

3.0 EVALUATION

The proposed changes to the TSs add various Unit 2 SGTS and Refueling Area HVAC equipment operability requirements and clarifications to reflect the completion and tie-in of Unit 2. The proposed changes reflect the original two unit design as described in the Final Safety Analysis Report which was previously reviewed and approved by the Nuclear Regulatory Commission in NUREG-0991, "Safety Evaluation Report Related to the Operation of Limerick Generating Station, Unit 1 and 2" dated August, 1983 and supplements thereto.

The proposed changes ensure that the Unit 2 systems and equipment which are relied upon or required to be operable to support the operation of Unit 1 are accounted for in the Unit 1 Limiting Conditions for Operation and Surveillance Requirements. This ensures that the Unit 2 systems and equipment required for the operation of Unit 1 perform their intended safety functions as required in the design basis for the Limerick Generating Station. Additionally, the proposed revisions will not affect nor change any plant hardware, plant design or plant system operation from that already described in the Final Safety Analysis Report. For this reason, the SGTS continues to meet the requirements of 10 CFR Part 50, Appendix A General Design Criteria 41, 42, 43, 61 and 64.

Based on our evaluation, the staff has determined that the proposed changes to the TSs are acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes to surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (54 FR 9924) on March 8, 1989 and consulted with the State of Pennsylvania. No public comments were received and the State of Pennsylvania did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and the security nor to the health and safety of the public.

Principal Contributor: Dick Clark

Dated: June 14, 1989