

**PECO NUCLEAR**

A UNIT OF PECO ENERGY

PECO Energy Company
Nuclear Group Headquarters
965 Chesterbrook Boulevard
Wayne, PA 19087-5691

May 8, 1996

Docket Nos. 50-352
50-353
License Nos. NPF-39
NPF-85U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555SUBJECT: Limerick Generating Station, Units 1 and 2
Response to Request for Additional Information Regarding
Technical Specifications Change Request No. 94-49-0

Gentlemen:

Attached is our response to your Request for Additional Information (RAI), discussed in our telephone conversation on April 23, 1996 regarding the deletion of the Standby Liquid Control System (SLCS) pump minimum flow requirements from Technical Specifications Section 3/4.1.5, at Limerick Generating Station (LGS), Units 1 and 2. This proposed change is the subject of Technical Specifications Change Request No. 94-49-0 which was forwarded to you by letter dated June 5, 1995.

This information is being submitted under affirmation, and the required affidavit is enclosed.

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

Very truly yours,

G. A. Hunger, Jr.
Director - LicensingAttachment
Enclosure

140073

cc: T. T. Martin, Administrator, Region I, USNRC (w/attachment/enclosure)
N. S. Perry, USNRC Senior Resident Inspector, LGS (w/attachment/enclosure)
R. R. Janati, PA Bureau of Radiological Protection (w/attachment/enclosure)

ADD

COMMONWEALTH OF PENNSYLVANIA :

: SS.

COUNTY OF CHESTER :

D. B. Feters, being first duly sworn, deposes and says:

That he is Vice President of PECO Energy Company, the Applicant herein; that he has read the attached response to the NRC Request for Additional Information concerning Technical Specifications Change Request No. 94-49-0 which proposes to remove the minimum flow rate requirement for the Standby Liquid Control System pumps from Technical Specifications Section 3/4.1.5, at Limerick Generating Station, Units 1 and 2, Facility Operating License Nos. NPF-39 and NPF-85, 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.

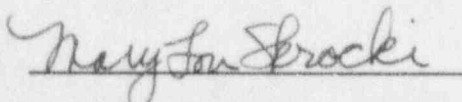


Vice President

Subscribed and sworn to

before me this 7th day

of May 1996.



Notary Public

Notarial Seal

Mary Lou Skrocki, Notary Public

Tredyffrin Twp., Chester County

My Commission Expires May 17, 1999

Member, Pennsylvania Association of Notaries

**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION (RAI)
LIMERICK GENERATING STATION, UNITS 1 AND 2
(Per Telecon dated April 23, 1996)**

TECHNICAL SPECIFICATIONS CHANGE REQUEST NO. 94-49-0

Question 1

Provide a copy of the document from the Inservice Testing (IST) Program for Limerick Generating Station (LGS) Units 1 and 2, that shows the minimum flow requirement and the surveillance test frequency for the Standby Liquid Control System (SLCS) pumps surveillance testing.

Response 1

The following excerpts from the LGS IST Program are provided herein.

- LGS Unit 1 and Common, Specification ML-008, Revision 4, dated 12/29/94, "IST Table - Pumps", page no. 4
- ASME Boiler and Pressure Vessel Code, Section XI, "Inservice Testing of Pumps, 1986 Edition, IWP-3200-IWP-3400, page no. 247
- LGS Test Procedure No. ST-6-048-230-1, Revision 09, "SLC Pump, Valve and Flow Test", page nos. 1, 16 and 44

Question 2

Provide a statement regarding the number of SLCS pumps at LGS Units 1 and 2.

Response 2

The SLCS consists of three redundant pumps and injection valve loops per unit. Only one of the three SLCS pumps is needed to meet the SLCS design basis described in LGS Updated Final Safety Analysis Report (UFSAR) Section 9.3.5.1. Two pumps are required to meet the requirements of the Anticipated Transients Without Scram (ATWS) Rule (10 CFR 50.62). If a pump is found to be inoperable, there is no impact on the shutdown capability, and reactor operation can continue during repairs. This ensures that SLCS is a highly reliable system at LGS Units 1 and 2.

1ST TABLE - PUMPS
 LIMERICK GENERATING STATION - UNIT 1 & COMMON

<u>PUMP NAME OR DESCRIPTION</u>	<u>PUMP ID NO.</u>	<u>P&ID</u>	<u>COORD.</u>	<u>TEST PARAMETERS</u>	<u>RELIEF REQUEST</u>	<u>REMARKS</u>
					OPRR-4	IWP-4400.
STANDBY LIQUID CONTROL (SLC)	1AP208	M-48 (SHT 1)	E-5	Pi*, D/P, Q, V, L/P	GP RR1, GP RR-3	*CALCULATED INLET PRESSURE (TEXT 5.1.1) ROTATING SPEED EXEMPT PER IWP-4400.
STANDBY LIQUID CONTROL (SLC)	1BP208	M-48 (SHT 1)	C-5	Pi*, D/P, Q, V, L/P	GP RR1, GP RR-3	*CALCULATED INLET PRESSURE (TEXT 5.1.1) ROTATING SPEED EXEMPT PER IWP-4400.
STANDBY LIQUID CONTROL (SLC)	1CP208	M-48 (SHT 1)	B-5	Pi*, D/P, Q, V, L/P	GP RR1, GP RR-3	*CALCULATED INLET PRESSURE (TEXT 5.1.1) ROTATING SPEED EXEMPT PER 6IWP-4400.

TABLE IWP-3100-2
ALLOWABLE RANGES OF TEST QUANTITIES

Test Quantity	Acceptable Range	Alert Range [Note (1)]		Required Action Range [Note (1)]	
		Low Values	High Values	Low Values	High Values
P_i	[Note (2)]	[Note (2)]	[Note (2)]	[Note (2)]	[Note (2)]
ΔP	$0.93-1.02\Delta P_i$	$0.90-0.93\Delta P_i$	$1.02-1.03\Delta P_i$	$<0.90\Delta P_i$	$>1.03\Delta P_i$
Q	$0.94-1.02Q_i$	$0.90-0.94Q_i$	$1.02-1.03Q_i$	$<0.90Q_i$	$>1.03Q_i$
V when $0 \leq V_i \leq 0.5$ mils	$0-1$ mil	None	$1-1.5$ mils	None	>1.5 mils
V when $0.5 \text{ mils} < V_i \leq 2.0$ mils	$0-2V_i$ mils	None	$2V_i-3V_i$ mils	None	$>3V_i$ mils
V when $2.0 \text{ mils} < V_i \leq 5.0$ mils	$0-(2 + V_i)$ mils	None	$(2 + V_i)-(4 + V_i)$ mils	None	$>(4 + V_i)$ mils
V when $V_i > 5.0$ mils	$0-1.4V_i$ mils	None	$1.4V_i-1.8V_i$ mils	None	$>1.8V_i$ mils
T_o	[Note (3)]	[Note (3)]	[Note (3)]	[Note (3)]	[Note (3)]

NOTES:

(1) See IWP-3230.

(2) P_i shall be within the limits specified by the Owner in the record of tests (IWP-6000).(3) T_o shall be within the limits specified by the Owner in the record of tests (IWP-6000).

IWP-3200 ANALYSIS OF RESULTS

IWP-3210 ALLOWABLE RANGES OF
INSERVICE TEST QUANTITIES

The allowable ranges of inservice test quantities in relation to the reference values are tabulated in Table IWP-3100-2. If these ranges cannot be met, the Owner shall specify in the record of tests (IWP-6000) the reduced range limits to allow the pump to fulfill its function, and those limits shall be used in lieu of the ranges given in Table IWP-3100-2.

IWP-3220 TIME ALLOWED FOR ANALYSIS
OF TESTS

All test data shall be analyzed within 96 hr after completion of a test.

IWP-3230 CORRECTIVE ACTION

(a) If deviations fall within the Alert Range of Table IWP-3100-2, the frequency of testing specified in IWP-3400 shall be doubled until the cause of the deviation is determined and the condition corrected.

(b) If deviations fall within the Required Action Range of Table IWP-3100-2, the pump shall be declared inoperative and not returned to service until the cause of the deviation has been determined and the condition corrected.

(c) Correction shall be either replacement or repair per IWP-3111, or shall be an analysis to demonstrate that the condition does not impair pump operability

and that the pump will still fulfill its function. A new set of reference values shall be established after such analysis.

(d) When test shows deviations greater than allowed (see Table IWP-3100-2), the instruments involved may be recalibrated and the test rerun.

IWP-3300 SCOPE OF TESTS

Each inservice test shall include the measurement and observation of all quantities in Table IWP-3100-1 except bearing temperatures, which shall be measured during at least one inservice test each year.

IWP-3400 FREQUENCY OF INSERVICE
TESTS

(a) An inservice test shall be run on each pump nominally every 3 months during normal plant operation. It is recommended that this test frequency be maintained during shutdown periods if this can reasonably be accomplished, although this is not mandatory. If it is not tested during plant shutdown, the pump shall be tested within 1 week after the plant is returned to normal operation.

(b) Pumps that are operated more frequently than every 3 months need not be run or stopped for a special test, provided the plant log shows each such pump was operated at least once every 3 months at the reference conditions, and the quantities specified were measured, observed, recorded, and analyzed.

W/O#
TEST DATE/TIME
GRADE

P.M. _____

**PECO ENERGY COMPANY
LIMERICK GENERATING STATION**

ST-6-048-230-1 SLC PUMP, VALVE, AND FLOW TEST

Test Freq: 3 Months - OR - Initiating Events:

Tech Spec: 4.0.5 4.6.3.1

4.1.5.b 4.6.3.3

4.1.5.c T3.6.3-1

10CFR50.62(C)(4)

A. _____

B. Other _____

1. Reason _____

2. A/R No. _____

TEST RESULTS: (Circle **SAT** or **UNSAT** - Below)**SAT** - All Asterisk (*) **AND** ISI/IST Letter (I) steps completed satisfactorily.**UNSAT** - Test Results of one OR more Asterisk (*) OR ISI/IST Letter (I) steps completed unsatisfactorily.

Performed by: _____ (Sign/Date/Time) _____

Reviewed by (SSV) _____ (Sign/Date) _____

IMMEDIATE NOTIFICATION OF OPERATIONS SHIFT MANAGEMENT (UNSAT Results Only)

Shift Supervision: _____ (Sign) _____

(Date/Time) _____

Corrective Action (if required) _____ (ETT or A/R - Number) _____**ADDITIONAL ACTION/TEST COMMENTS** (User may add additional pages, if necessary)

Person making entry _____ (Sign/Date) _____

INITIALS**NOTE**

Satisfactory completion of step 4.6.26 verifies check valve 48-1F033A fully opens.

- 4.6.26 **RECORD** 1AP208, "SLC Pump A" discharge pressure/flow
AND VERIFY not less than Tech Spec Min.

FLOWT S MIN

_____ gpm

41.2 gpm

PM

_____ (*,l)

PRESSURET S MIN

_____ psig

1205 psig

PM

_____ (*,l)

- 4.6.27 **PERFORM** the following at 1AP208, "SLC Pump A" Local
Pump Test Station:

1. **PRESS** "STOP" pushbutton to Stop "A" SLC
Pump. _____
2. **PLACE** HS-48-108A to "NORMAL." _____

Attachment 2
Page 1 of 3

PUMP 1AP208

NOTE

Expected ranges correspond with IST ranges

STEP NUMBER	PARAMETER	TEST RESULT	EXPECTED RANGE	NOT IN REQUIRED ACTION RANGE (INITIALS)	REQUIRED ACTION RANGE	PM
4.6.25.2	SYSTEM FLOWRATE Q (gpm)	_____ gpm	≤ 43.66 gpm ≥ 40.23 gpm	_____ (I)	LO < 38.56 gpm HI > 44.13 gpm	11
4.6.25.3	Vibration Amplitude (MILS)	_____ MILS	≤ 1.24 MILS	_____ (I)	> 1.86 MILS	12