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Mr. A. Schwencer, Chief  
Licensing Branch No. 2  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

April 18, 1984

Subject: Limerick Generating Station, Units 1&2  
Start-Up Test (SUT)-38  
Procedures and System Review Branch (PSRB)

Reference: PECO and NRC telecon dated March 1, 1984  
between M. J. Campanone and W. Long  
(NRC) and C. R. Endriss, V. Nilekni  
(Bechtel) and R. J. Stipceovich (PECO).

File: GOVT 1-1 (NRC)

Dear Mr. Schwencer:

As discussed in the reference telecon with the Procedures and Systems Branch Reviewer, start-up test (SUT)-38, "MSIV Leakage Control System (MSIV-LGS) Performance Verification", is being deleted from the FSAR. We will incorporate the functional testing requirements for the MSIV-LGS in pre-op test 83.1, "Main Steam System". Pre-op test 83.1 will functionally test the MSIV-LGS using compressed air instead of nuclear steam thereby avoiding the potential for contaminating primary containment, the steam tunnel and standby gas treatment system filters. This change will keep radiation exposure to personnel as low as reasonably achievable.

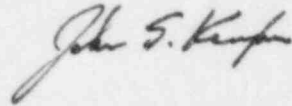
The PSRB branch reviewer, W. Long, concurred with this change and in fact stated that, with this approach, Limerick would be consistent with what other similar plants have done.

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A PDR

IE26 Original  
1/1 To: Reg Filer

Therefore, the attached draft FSAR page changes and revised response to Question 640.21 deleting SUT-38 will be formally incorporated into the FSAR exactly as they appear on the attachments in the FSAR revision scheduled for May, 1984.

Sincerely,

A handwritten signature in cursive script, appearing to read "John S. Kemp".

RJS/gra/041184130

cc: See Attached Service List

cc: Judge Lawrence Brenner	(w/o enclosure)
Judge Peter A. Morris	(w/o enclosure)
Judge Richard F. Cole	(w/o enclosure)
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Ann P. Hodgdon, Esq.	(w/o enclosure)
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Atomic Safety & Licensing Appeal Board	(w/o enclosure)
Atomic Safety & Licensing Board Panel	(w/o enclosure)
Docket & Service Section	(w/o enclosure)
Martha W. Bush, Esq.	(w/o enclosure)
James Wiggins	(w/o enclosure)
Mr. Timothy R. S. Campbell	(w/o enclosure)
Phyllis Zitzer	(w/o enclosure)

Acceptance Criteria - The measured response of the piping system and restraint loads shall be less than the acceptable response determined by analysis as specified in Section 3.9.2.1.b.1.

(STP-37) Main Steam System and Turbine Performance and Plant Dynamic Response Verification (Formerly SUT-37)

Test Objectives - The test objectives are to demonstrate (1) the satisfactory performance of the main steam system and the main turbine; and (2) that the dynamic response of the plant to the design load swings, including step and ramp changes, is in accordance with design.

Prerequisites - Fuel loading is completed, and power ascension testing is in progress.

Test Method - Reactor power is brought to 25, 50, 75 and 100 percent to verify operability and design performance requirements of the main steam system and main turbine. Design step and ramp load changes are induced at each power level to verify plant dynamic response.

Acceptance Criteria - The main steam system operates properly at the specified power levels. The main turbine operates within specified limits throughout the full power range. The dynamic response of the plant to design load swings is within specified limits.

(STP-38) DELETED

~~(STP-38) MSIV Leakage Control System Performance Verification~~  
~~(Formerly SUT-38)~~

Test Objective - The test objective is to demonstrate the performance of the MSIV leakage control system to control leakage through the closed MSIV valve seats.

Prerequisite - Plant is operating at a steady state power load.

Test Method - System operation is manually initiated. System parameters are monitored and recorded. System performance is verified.

Acceptance Criteria - System capacity is sufficient to control MSIV leakage. System interlocks operate properly.

TEST CONDITION (1)

TEST NO.	PROCEDURE DESCRIPTION	OPEN VESSEL	HEAT UP	1	2	3	4	5	6	WARRANT
1	CHEMICAL AND RADIOCHEMICAL	X	X	X	X	X	X	X	X	X
2	RADIATION MEASUREMENTS	X	X	X	X	X	X	X	X	X
3	FUEL LOADING	X	X	X	X	X	X	X	X	X
4	FULL CORE SHUTDOWN MARGIN	X	X	X	X	X	X	X	X	X
5	CONTROL ROD DRIVE SYSTEM	X	X	X	X	X	X	X	X	X
6	SRM PERFORMANCE AND CONTROL ROD SEQUENCE	X	X	X	X	X	X	X	X	X
9	WATER LEVEL REFERENCE LEG TEMPERATURE	X	X	X	X	X	X	X	X	X
10	IRM PERFORMANCE	X	X	X	X	X	X	X	X	X
11	LPRM CALIBRATION	X	X	X	X	X	X	X	X	X
12	APRM CALIBRATION	X	X	X	X	X	X	X	X	X
13	PROCESS COMPUTER PERFORMANCE VERIFICATION	X	X	X	X	X	X	X	X	X
14	RCIC SYSTEM PERFORMANCE VERIFICATION	X	X	X	X	X	X	X	X	X
14.1	RCIC SYSTEM STARTUP AFTER LOSS OF AC POWER TO THE SYSTEM	X	X	X	X	X	X	X	X	X
14.2	RCIC SYSTEM OPERATION WITH A SUSTAINED LOSS OF AC POWER TO THE SYSTEM	X	X	X	X	X	X	X	X	X
15	HPCI SYSTEM PERFORMANCE VERIFICATION	X	X	X	X	X	X	X	X	X
16	SELECTED PROCESS TEMPERATURES VERIFICATION	X	X	X	X	X	X	X	X	X
17	SYSTEM EXPANSION	X	X	X	X	X	X	X	X	X
18	TIP UNCERTAINTY	X	X	X	X	X	X	X	X	X
19	CORE PERFORMANCE	X	X	X	X	X	X	X	X	X
20	STEAM PRODUCTION	X	X	X	X	X	X	X	X	X
21	CORE POWER-VOID MODE RESPONSE	X	X	X	X	X	X	X	X	X
22	PRESSURE REGULATOR RESPONSE	X	X	X	X	X	X	X	X	X
23	FEEDWATER CONTROL SYSTEM DEMONSTRATION	X	X	X	X	X	X	X	X	X
24	MAIN TURBINE VALVES SURVEILLANCE TEST	X	X	X	X	X	X	X	X	X
25	MAIN STEAM ISOLATION VALVES PERFORMANCE	X	X	X	X	X	X	X	X	X
26	MAIN STEAM RELIEF VALVES PERFORMANCE	X	X	X	X	X	X	X	X	X
27	TURBINE TRIP AND GENERATOR LOAD REJECTION DEMONSTRATION	X	X	X	X	X	X	X	X	X
28	SHUTDOWN FROM OUTSIDE THE MAIN CONTROL ROOM DEMONSTRATION	X	X	X	X	X	X	X	X	X
29	RECIRCULATION FLOW CONTROL DEMONSTRATION	X	X	X	X	X	X	X	X	X
30	RECIRCULATION SYSTEM	X	X	X	X	X	X	X	X	X
31	LOSS OF TURBINE-GENERATOR AND OFFSITE POWER	X	X	X	X	X	X	X	X	X
32	ESSENTIAL HVAC SYSTEM OPERATION AND CONTAINMENT HOT PENETRATION TEMPERATURE VERIFICATION	X	X	X	X	X	X	X	X	X
33	PIPING STEADY STATE VIBRATION	X	X	X	X	X	X	X	X	X
34	OFFGAS SYSTEM PERFORMANCE VERIFICATION	X	X	X	X	X	X	X	X	X
35	RECIRCULATION FLOW CALIBRATION	X	X	X	X	X	X	X	X	X
36	PIPING DYNAMIC TRANSIENT	X	X	X	X	X	X	X	X	X
37	MAIN STEAM SYSTEM AND TURBINE PERFORMANCE AND PLANT DYNAMIC RESPONSE VERIFICATION	X	X	X	X	X	X	X	X	X
38	REACTOR WATER CLEANUP SYSTEM PERFORMANCE VERIFICATION	X	X	X	X	X	X	X	X	X
70	REACTOR WATER CLEANUP SYSTEM PERFORMANCE VERIFICATION	X	X	X	X	X	X	X	X	X
71	RESIDUAL HEAT REMOVAL SYSTEM PERFORMANCE VERIFICATION	X	X	X	X	X	X	X	X	X

## LEGEND

X TEST INDEPENDENT OF FLOW CONTROLLER MODE

M MASTER MANUAL FLOW CONTROLLER MODE

SD SCRAM DEFINITE

## NOTES

- (1) SEE FIGURE 14.2.8 TEST CONDITION REGION MAP  
 (2) PERFORM TEST 15, TIMING OF 4 SLOW ESTIMATED SCRAMS IN CONJUNCTION WITH TESTS SCRAMS  
 (3) FULL CLOSURE OF ONE VALVE ONLY MAY BE DONE DURING TEST CONDITION OPEN VESSEL  
 (4) SOME TESTS DONE DURING APPROACH TO TEST CONDITION  
 (5) MAY BE DONE DURING AN EARLIER TEST CONDITION IF CONDITIONS WARRANT  
 (6) DONE WITH STEAM BYPASS CAPACITY TRIPS FROM POWER  
 (7) DETERMINE MAXIMUM POWER LEVEL TEST CAN BE PERFORMED WITHOUT CAUSING REACTOR SCRAM

DRAFT

EMERICK GENERATING STATION  
 UNITS 1 AND 2  
 FINAL SAFETY ANALYSIS REPORT

STARTUP TEST SEQUENCE  
 (UNITS 1 & 2)

FIGURE 14.2.6

REV. 28, 01/84



**DRAFT**QUESTION 640.21 (Section 14.2.12)

Provide a description of a test which demonstrates that the MSIV-LCS components operate properly when handling steam and that the system can handle the amount of leakage that is present when the main steam system is at operating temperature.

RESPONSE

This system is tested in preoperational procedure P-83.1.  
~~Additional testing of system capacity will be performed in a new startup test SUT-38, MSIV Leakage Control System Performance.~~

*which addresses demonstration of the capability to handle system flows. In addition, components required to function are qualified for the design process temperature and pressure conditions.*