

ATTACHMENT 2

LIMERICK GENERATING STATION
UNITS 1 AND 2

Docket Nos.
50-352
50-353

License Nos.
NPF-39
NPF-85

TECHNICAL SPECIFICATIONS CHANGE REQUEST
NO. 95-08-0

AFFECTED PAGES

UNIT 1

ix
xix
3/4 3-8
3/4 3-89
B 3/4 3-6

UNIT 2

ix
xix
3/4 3-8
3/4 3-89
B 3/4 3-6

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION

PAGE

INSTRUMENTATION (Continued)

Table 4.3.7.1-1 Radiation Monitoring Instrumentation Surveillance Requirements.....	3/4 3-66
The information from pages 3/4 3-68 through 3/4 3-72 has been intentionally omitted. Refer to note on page 3/4 3-68.....	3/4 3-68
The information from pages 3/4 3-73 through 3/4 3-75 has been intentionally omitted. Refer to note on page 3/4 3-73.....	3/4 3-73
Remote Shutdown System Instrumentation and Controls.....	3/4 3-76
Table 3.3.7.4-1 Remote Shutdown System Instrumentation and Controls.....	3/4 3-77
Table 4.3.7.4-1 Remote Shutdown System Instrumentation Surveillance Requirements.....	3/4 3-83
Accident Monitoring Instrumentation.....	3/4 3-84
Table 3.3.7.5-1 Accident Monitoring Instrumen- tation.....	3/4 3-85
Table 4.3.7.5-1 Accident Monitoring Instrumenta- tion Surveillance Requirements.....	3/4 3-87
Source Range Monitors.....	3/4 3-88
Traversing In-Core Probe System.....	3/4 3-89
Chlorine Detection System.....	3/4 3-90
Toxic Gas Detection System.....	3/4 3-91
Add DELETED; Refer to note on page.....	3/4 3-92

The information from page 3/4 3-89
has been intentionally omitted.
Refer to Note on page.

INDEX

BASES

SECTION

PAGE

INSTRUMENTATION (Continued)

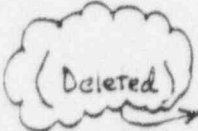

(Deleted).....	B 3/4 3-5
(Deleted).....	B 3/4 3-5
Remote Shutdown System Instrumentation and Controls....	B 3/4 3-5
Accident Monitoring Instrumentation.....	B 3/4 3-5
Source Range Monitors.....	B 3/4 3-5
 Traversing In-Core Probe System	B 3/4 3-6
 Chlorine and Toxic Gas Detection Systems.....	B 3/4 3-6
(Deleted).....	B 3/4 3-6
Loose-Part Detection System.....	B 3/4 3-7
(Deleted).....	B 3/4 3-7
Offgas Monitoring Instrumentation.....	B 3/4 3-7
3/4.3.8 TURBINE OVERSPEED PROTECTION SYSTEM.....	B 3/4 3-7
3/4.3.9 FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION.....	B/3/4 3-7
Bases Figure B 3/4.3-1 Reactor Vessel Water Level.....	B 3/4 3-8
<u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1 RECIRCULATION SYSTEM.....	B 3/4 4-1
3/4.4.2 SAFETY/RELIEF VALVES.....	B 3/4 4-2
3/4.4.3 REACTOR COOLANT SYSTEM LEAKAGE	
Leakage Detection Systems.....	B 3/4 4-3
Operational Leakage.....	B 3/4 4-3
3/4.4.4 CHEMISTRY.....	B 3/4 4-3

TABLE 4.3.1.1-1 (Continued)
REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
9. Turbine Stop Valve - Closure	N.A.	Q	R	1
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	N.A.	Q	R	1
11. Reactor Mode Switch Shutdown Position	N.A.	R	N.A.	1, 2, 3, 4, 5
12. Manual Scram	N.A.	W	N.A.	1, 2, 3, 4, 5

(a) Neutron detectors may be excluded from CHANNEL CALIBRATION.

(b) The IRM and SRM channels shall be determined to overlap for at least 1/2 decades during each startup after entering OPERATIONAL CONDITION 2 and the IRM and APRM channels shall be determined to overlap for at least 1/2 decades during each controlled shutdown, if not performed within the previous 7 days.

(c) DELETED

(d) This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER $\geq 25\%$ of RATED THERMAL POWER. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER.

(e) This calibration shall consist of the adjustment of the APRM flow biased channel to conform to a calibrated flow signal.

(f) The LPRMs shall be calibrated at least once per 1000 effective full power hours (EFPH), using the ~~TIP~~ ^{Delete} system.

(g) Verify measured core flow (total core flow) to be greater than or equal to established core flow at the existing loop flow (APRM % flow). During the startup test program, data shall be recorded for the parameters listed to provide a basis for establishing the specified relationships. Comparisons of the actual data in accordance with the criteria listed shall commence upon the conclusion of the startup test program.

(h) This function is not required to be OPERABLE when the reactor pressure vessel head is removed per Specification 3.10.1.

(i) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.

(j) If the RPS shorting links are required to be removed per Specification 3.9.2, they may be reinstalled for up to 2 hours for required surveillance. During this time, CORE ALTERATIONS shall be suspended, and no control rod shall be moved from its existing position.

(k) Required to be OPERABLE only prior to and during shutdown margin demonstrations as performed per Specification 3.10.3.

INSTRUMENTATION

3891002560

TRaversing in-core probe system

Limiting Condition for Operation

- 3.3.7.7 The traversing in-core probe system shall be OPERABLE with:
- Five movable detectors, drives and readout equipment to map the core, and
 - Indexing equipment to allow all five detectors to be calibrated in a common location.

APPLICABILITY: When the traversing in-core probe is used for:

- Recalibration of the LPRM detectors, and
- Monitoring the APLHGR, LHGR, MCPR, or MFLPD.

ACTION:

With the traversing in-core probe system inoperable, suspend use of the system for the above applicable monitoring or calibration functions. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.7 The traversing in-core probe system shall be demonstrated OPERABLE by normalizing each of the above required detector outputs within 72 hours prior to use for the LPRM calibration function.

Add

Section 3/4.3.7.7

Add

THE INFORMATION FROM THIS TECHNICAL SPECIFICATION
HAS BEEN RELOCATED TO THE TECHNICAL REQUIREMENTS
MANUAL (TRM).

~~Only the detector(s) in the required measurement location(s) are required to be OPERABLE.~~

6 delete

INSTRUMENTATION

BASES

3/4.3.7.7 TRAVERSING IN-CORE PROBE SYSTEM (Deleted) - INFORMATION FROM THIS SECTION RELOCATED TO THE TRM

The OPERABILITY of the traversing in-core probe system with the specified minimum complement of equipment ensures that the measurements obtained from use of this equipment accurately represent the spacial neutron flux distribution of the reactor core.

The TIP system operability is demonstrated by normalizing all probes (i.e., detectors) prior to performing an LPRM calibration function. Monitoring core thermal limits may involve utilizing individual detectors to monitor selected areas of the reactor core, thus all detectors may not be required to be OPERABLE. The OPERABILITY of individual detectors to be used for monitoring is demonstrated by comparing the detector(s) output in the resultant heat balance calculation (P-1) with data obtained during a previous heat balance calculation (P-1).

3/4.3.7.8 CHLORINE AND TOXIC GAS DETECTION SYSTEMS

The OPERABILITY of the chlorine and toxic gas detection systems ensures that an accidental chlorine and/or toxic gas release will be detected promptly and the necessary protective actions will be automatically initiated for chlorine and manually initiated for toxic gas to provide protection for control room personnel. Upon detection of a high concentration of chlorine, the control room emergency ventilation system will automatically be placed in the chlorine isolation mode of operation to provide the required protection. Upon detection of a high concentration of toxic gas, the control room emergency ventilation system will manually be placed in the chlorine isolation mode of operation to provide the required protection. The detection systems required by this specification are consistent with the recommendations of Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators against an Accidental Chlorine Release," February 1975.

There are three toxic gas detection subsystems. The high toxic chemical concentration alarm in the Main Control Room annunciates when two of the three subsystems detect a high toxic gas concentration. An Operate/Inop keylock switch is provided for each subsystem which allows an individual subsystem to be placed in the tripped condition. Placing the keylock switch in the INOP position initiates one of the two inputs required to initiate the alarm in the Main Control Room.

Specified surveillance intervals and maintenance outage times have been determined in accordance with GENE-770-06-1, "Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications," as approved by the NRC and documented in the SER (letter to R.D. Binz, IV, from C.E. Rossi dated July 21, 1992).

3/4.3.7.9 (Deleted) - INFORMATION FROM THIS SECTION RELOCATED TO THE TRM.

DEC 20 1995

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS.

SECTION

PAGE

INSTRUMENTATION(Continued)

Table 4.3.7.1-1	Radiation Monitoring Instrumentation Surveillance Requirements.....	3/4 3-66
	The information from pages 3/4 3-68 through 3/4 3-72 has been intentionally omitted. Refer to note on page 3/4 3-68.....	3/4 3-68
	The information from pages 3/4 3-73 through 3/4 3-75 has been intentionally omitted. Refer to note on page 3/4 3-73.....	3/4 3-73
	Remote Shutdown System Instrumentation and Controls.....	3/4 3-76
Table 3.3.7.4-1	Remote Shutdown System Instrumentation and Controls.....	3/4 3-77
Table 4.3.7.4-1	Remote Shutdown System Instrumentation Surveillance Requirements.....	3/4 3-83
	Accident Monitoring Instrumentation.....	3/4 3-84
Table 3.3.7.5-1	Accident Monitoring Instrumen- tation.....	3/4 3-85
Table 4.3.7.5-1	Accident Monitoring Instrumenta- tion Surveillance Requirements.....	3/4 3-87
	Source Range Monitors.....	3/4 3-88
	Traversing In-Core Probe System.....	3/4 3-89
	Chlorine Detection System.....	3/4 3-90
	Toxic Gas Detection System.....	3/4 3-91
	DELETED; Refer to note on page.....	3/4 3-92

Add

The information from page 3/4 3-89
has been intentionally omitted.
Refer to note on page.

INDEX

BASES

SECTION

PAGE

INSTRUMENTATION (Continued)

	(Deleted).....	B 3/4 3-5
	(Deleted).....	B 3/4 3-5
	Remote Shutdown System Instrumentation and Controls.....	B 3/4 3-5
	Accident Monitoring Instrumentation.....	B 3/4 3-5
	Source Range Monitors.....	B 3/4 3-5
	Traversing In-Core Probe System	B 3/4 3-6
	Chlorine and Toxic Gas Detection Systems.....	B 3/4 3-6
	(Deleted).....	B 3/4 3-6
	Loose-Part Detection System.....	B 3/4 3-7
	(Deleted).....	B 3/4 3-7
	Offgas Monitoring Instrumentation.....	B 3/4 3-7
3/4.3.8	TURBINE OVERSPEED PROTECTION SYSTEM.....	B 3/4 3-7
3/4.3.9	FEEDWATER/MAIN TURBINE TRIP SYSTEM ACTUATION INSTRUMENTATION.....	B 3/4 3-7
	Bases Figure B 3/4.3-1 Reactor Vessel Water Level.....	B 3/4 3-8
	<u>3/4.4 REACTOR COOLANT SYSTEM</u>	
3/4.4.1	RECIRCULATION SYSTEM.....	B 3/4 4-1
3/4.4.2	SAFETY/RELIEF VALVES.....	B 3/4 4-2
3/4.4.3	REACTOR COOLANT SYSTEM LEAKAGE Leakage Detection Systems.....	B 3/4 4-3
	Operational Leakage.....	B 3/4 4-3
3/4.4.4	CHEMISTRY.....	B 3/4 4-3a

TABLE 4.3.1.1-1 (Continued)

REACTOR PROTECTION SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

LIMERICK - UNIT 2

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION(a)	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
9. Turbine Stop Valve - Closure	N.A.	Q	R	1
10. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low	N.A.	Q	R	1
11. Reactor Mode Switch Shutdown Position	N.A.	R	N.A.	1, 2, 3, 4, 5
12. Manual Scram	N.A.	W	N.A.	1, 2, 3, 4, 5

(a) Neutron detectors may be excluded from CHANNEL CALIBRATION.

(b) The IRM and SRM channels shall be determined to overlap for at least 1/2 decades during each startup after entering OPERATIONAL CONDITION 2 and the IRM and APRM channels shall be determined to overlap for at least 1/2 decades during each controlled shutdown, if not performed within the previous 7 days.

(c) DELETED

(d) This calibration shall consist of the adjustment of the APRM channel to conform to the power values calculated by a heat balance during OPERATIONAL CONDITION 1 when THERMAL POWER $\geq 25\%$ of RATED THERMAL POWER. Adjust the APRM channel if the absolute difference is greater than 2% of RATED THERMAL POWER.

(e) This calibration shall consist of the adjustment of the APRM flow biased channel to conform to a calibrated flow signal.

(f) The LPRMs shall be calibrated at least once per 1000 effective full power hours (EFPH), using the TIP system. ^{to delete}

(g) Verify measured core flow (total core flow) to be greater than or equal to established core flow at the existing loop flow (APRM % Flow). During the startup test program, data shall be recorded for the parameters listed to provide a basis for establishing the specified relationships. Comparisons of the actual data in accordance with the criteria listed shall commence upon the conclusion of the startup test program.

(h) This function is not required to be OPERABLE when the reactor pressure vessel head is removed per Specification 3.10.1.

(i) With any control rod withdrawn. Not applicable to control rods removed per Specification 3.9.10.1 or 3.9.10.2.*

(j) If the RPS shorting links are required to be removed per specification 3.9.2, they may be reinstalled for up to 2 hours for required surveillance. During this time, CORE ALTERATIONS shall be suspended, and no control rod shall be moved from its existing position.

(k) Required to be OPERABLE only prior to and during shutdown margin demonstrations as performed per Specification 3.10.3.

3/4 3-8 Amendment 7, 17, 48, 75

FEB 22 1996

INSTRUMENTATION

TRAVERSING IN-CORE PROBE SYSTEM

LIMITING CONDITION FOR OPERATION

Delete 3/5

3.3.7.7 The traversing in-core probe system shall be OPERABLE with:

- a. Five movable detectors, drives and readout equipment to map the core, and
- b. Indexing equipment to allow all five detectors to be calibrated in a common location.

APPLICABILITY: When the traversing in-core probe is used for:

- a. Recalibration of the LPRM detectors, and
- b.* Monitoring the APLHGR, LHGR, MCPR, or MFLPD.

ACTION:

With the traversing in-core probe system inoperable, suspend use of the system for the above applicable monitoring or calibration functions. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.7 The traversing in-core probe system shall be demonstrated OPERABLE by normalizing each of the above required detector outputs within 72 hours prior to use for the LPRM calibration function.

Add

Section 3/4.3.7.7.

Add

THE INFORMATION FROM THIS TECHNICAL SPECIFICATION HAS BEEN RELOCATED TO THE TECHNICAL REQUIREMENTS MANUAL (TRM).

~~*Only the detector(s) in the required measurement location(s) are required to be OPERABLE.~~

Delete

INSTRUMENTATION

BASES

3/4.3.7.7 TRAVERSING IN-CORE PROBE SYSTEM ^{Add.} ~~(Deleted)~~ INFORMATION FROM THIS SECTION RELOCATED TO THE TRM.

The OPERABILITY of the traversing in-core probe system with the specified minimum complement of equipment ensures that the measurements obtained from use of this equipment accurately represent the spacial neutron flux distribution of the reactor core.

The TIP system operability is demonstrated by normalizing all probes (i.e., detectors) prior to performing an LPRM calibration function. Monitoring core thermal limits may involve utilizing individual detectors to monitor selected areas of the reactor core, thus all detectors may not be required to be OPERABLE. The OPERABILITY of individual detectors to be used for monitoring is demonstrated by comparing the detector(s) output in the resultant heat balance calculation (P-1) with data obtained during a previous heat balance calculation (P-1).

3/4.3.7.8 CHLORINE AND TOXIC GAS DETECTION SYSTEMS

The OPERABILITY of the chlorine and toxic gas detection systems ensures that an accidental chlorine and/or toxic gas release will be detected promptly and the necessary protective actions will be automatically initiated for chlorine and manually initiated for toxic gas to provide protection for control room personnel. Upon detection of a high concentration of chlorine, the control room emergency ventilation system will automatically be placed in the chlorine isolation mode of operation to provide the required protection. Upon detection of a high concentration of toxic gas, the control room emergency ventilation system will manually be placed in the chlorine isolation mode of operation to provide the required protection. The detection systems required by this specification are consistent with the recommendations of Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators against an Accidental Chlorine Release," February 1975.

There are three toxic gas detection subsystems. The high toxic chemical concentration alarm in the Main Control Room annunciates when two of the three subsystems detect a high toxic gas concentration. An Operate/Inop keylock switch is provided for each subsystem which allows an individual subsystem to be placed in the tripped condition. Placing the keylock switch in the INOP position initiates one of the two inputs required to initiate the alarm in the Main Control Room.

Specified surveillance intervals and maintenance outage times have been determined in accordance with GENE-770-06-1, "Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications," as approved by the NRC and documented in the SER (letter to R.D. Binz, IV, from C.E. Rossi dated July 21, 1992).

3/4.3.7.9 (Deleted) - INFORMATION FROM THIS SECTION RELOCATED TO THE TRM.

DEC 20 1995