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SEP 21 1984

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

Docket No. 50-352
50-353

Subject: Limerick Generating Station, Units 1 and 2
Information for Reactor Systems Branch (RSB)
Regarding Technical Specification Figure 3.2.3-1

References: Telecon between RSB and PECO on 9/20/84

File: GOVT 1-1 (NRC)

Dear Mr. Schwencer:

Attached is a draft change to our response to FSAR Question 440.5 which is being made as a result of the referenced telecon.

The information contained in this draft FSAR change will be incorporated into the FSAR, exactly as it appears on the attachment, in the revision scheduled for October 1984.

Sincerely,

John S. Kemper
for
John S. Kemper

DFC/gra/09148402

Attachment

Copy to: (See Attached Service List)

8409260333 840921
PDR ADOCK 05000352
A PDR

Boo!

cc: Judge Lawrence Brenner (w/enclosure)
Judge Peter A. Morris (w/enclosure)
Judge Richard F. Cole (w/enclosure)
Judge Christine N. Kohl (w/enclosure)
Judge Gary J. Edles (w/enclosure)
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Board Panel
Docket & Service Section (w/enclosure)
Mr. James Wiggins (w/enclosure)
Mr. Timothy R. S. Campbell (w/enclosure)

DRAFTQUESTION 440.5 (Section 15.0)

GE calculations performed for rapid pressurization and for decrease in core coolant temperature (Feedwater Controller Failure, Maximum Demand) events using the ODYN model have shown that in some cases a more severe CPR is predicted than that by the REDY model (NEDO-10802). Show that the loss of feedwater heating event would still remain the most limiting by assuming the following transient events to be analyzed with the ODYN model: (1) generator load rejection without bypass; (2) turbine trip, without bypass; and (3) feedwater controller failure, maximum demand.

DRAFTRESPONSE

Results of the reanalysis of the three requested transients are shown in Table 440.5-1 and Figures 440.5-1, 2 and 3.

The required operating limit CPR values are summarized in Table 440.5-2 for these three pressurization transients and for two non-pressurization events: The Loss of Feedwater Heater and the Rod Withdrawal Error Transients. The required operating limit CPR is determined by ~~both these non-pressurization events~~, and is the same for both Option A and Option B ODYN adjustment factors, regardless of the frequency category of the turbine bypass failure transients.

In addition to the above requested events, the effect of the turbine bypass being inoperable was quantified for the Feedwater Controller Failure, Maximum Demand event and for the Loss of Feedwater Heater event. The required OLCPR for both of these events was found to be below the design OLCPR Limit of 1.22. To further evaluate plant capability beyond the design basis, the Load Rejection event and the Feedwater Controller Failure, Maximum Demand event were evaluated assuming that both turbine bypass and recirculation pump trip (EOC-RPT) were inoperable; this resulted in a required OLCPR which is bounded by a limit ranging from 1.25 to 1.32. The results of these additional analyses are also included in Table 440.5-2.

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TABLE 440.5-2

REQUIRED OPERATING LIMIT CPR VALUES⁽¹⁾

Pressurization Events:

	<u>CPR</u> <u>(Option A)⁽²⁾</u>	<u>CPR</u> <u>(Option B)⁽²⁾</u>
Load Rejection Without Bypass	1.19	1.11
Turbine Trip Without Bypass	1.17	1.10
Feedwater Controller Failure, 127% Flow	1.17	1.14

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Non-Pressurization Events:

	<u>CPR</u>
Rod Withdrawal Error ⁽³⁾	1.21 ⁽⁴⁾
Loss of Feedwater Heater	1.22 ⁽⁴⁾

Supplemental Non-Chapter 15 Events:

Feedwater Controller Failure, 127% Flow, Without Bypass	1.22	1.19
Feedwater Controller Failure, 127% Flow, Without Bypass, and Without EOC-RPT	1.32	1.25
Load Rejection Without Bypass and Without EOC-RPT	1.28	1.17
Loss of Feedwater Heater Without Bypass		1.21 ⁽⁴⁾

⁽¹⁾ For minimum CPR of 1.06⁽²⁾ Includes adjustment factors as specified in the NRC safety evaluation report on ODYN, NEDO-24154 and NEDE-24154-P.⁽³⁾ OLCPR value is obtained for the 107% Rod Block setpoint, Control Cell Core analysis.⁽⁴⁾ Required OLCPR using either Option A or Option B adjustment factor regardless of frequency category of the turbine-generator trip events with bypass failure.