

November 5, 2001

MEMORANDUM TO: James W. Clifford, Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Christopher Gratton, Project Manager, Section 2 **/RA/**
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI), LIMERICK
GENERATING STATION (LGS), UNITS 1 AND 2, CONCERNING
LICENSE AMENDMENT REQUEST (LAR) NO. 99-10-0, DATED
APRIL 23, 2001, AND THE SUBSEQUENT CONFERENCE CALL TO
DISCUSS THE RAI (TAC NOS. MB2271 AND MB2272)

The attached list of RAIs was transmitted by facsimile on October 2, 2001, to Mr. Dave Helker of Exelon Generation Company (the licensee). The RAIs were transmitted to facilitate a conference call which occurred on October 16, 2001, between the licensee and members of the Nuclear Regulatory Commission (NRC) technical staff. With regard to RAI #4, the licensee and staff agreed that 3 years of relay reliability history would be sufficient rather than the 5 years requested in RAI #4. In the submittal, the licensee requested a revision to the LGS Technical Specifications to take advantage of the inherent overlap of the degraded voltage relays' characteristics. This memorandum and the attachment do not convey or represent an NRC staff position regarding the licensee's request. The licensee anticipates that the requested information can be provided by November 15, 2001.

Docket Nos. 50-352 and 50-353

Attachment: Request for Additional Information, LGS Units 1 and 2, LAR No. 99-10-0

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REQUEST FOR ADDITIONAL INFORMATION

LIMERICK GENERATING STATION, UNITS 1 AND 2

LICENSE AMENDMENT REQUEST NO. 99-10-0

1. The first paragraph on page 4 of Attachment 1 of the amendment request states “utilizing the 127Y relay results in a longer response time (21-30 seconds) for detecting a loss of that source of offsite power, however, this time is not significant under nonaccident conditions.” With respect to that statement, please provide the following information:
 - a. The technical bases for acceptable longer response time (21-30 seconds) at a rated source voltage of less than 70%.
 - b. Any impact on running loads (etc., 4kV, 480V, and 120V) at reduced terminal voltages for 21 to 30 seconds.
2. The second paragraph on page 4 of Attachment 1 of the amendment request states that “operating at this voltage for less than 30 seconds would not cause any detrimental effects to the connected equipment.” For a non-LOCA degraded voltage scenario in which the 127Y relay is inoperable (bypassed), please address the following:
 - a. Provide the technical bases for why there would not be any detrimental effects to the connected equipment (4kV, 480V, and 120V) while operating at a degraded voltage of less than 87.5% but greater than 70% for “a maximum additional 29 second time delay.”
3. The third paragraph on page 4 of Attachment 1 of the amendment request states that “the proposed change to the Technical Specifications (TSs) requires that the grid voltage be monitored to 100% nominal.” With regard to monitoring grid voltage, please address the following questions.
 - a. How will grid voltage be monitored?
 1. By devices or sensors that are currently installed? If this is the case, please state the location of these voltage monitors; e.g., in the switchyard for 230 kV [for the 101 safeguard bus source], and in the switchyard for 525 kV [for the 201 safeguard bus source] or
 2. By devices or sensors that are currently installed at the class 1E 4kV buses? [such as in the vicinity of 127, 127Y and 127Z relays.]
 - b. Are the “as installed” or “to be installed” equipment/devices designed as class 1E equipment?
 - c. What is the proposed surveillance plan for the voltage monitoring devices? Specifically:
 1. What will be the calibration frequency of the monitoring devices?
 2. Will the monitoring devices be calibrated for 100% nominal value of the actual grid voltage; e.g., at switchyard grid nominal voltage level potential

transformers installed in the switchyards, or at its reflected voltage on the 1E safeguard buses voltage?

3. At what periodic frequency will the voltage be monitored and evaluated by control room personnel and plant staff?
 - d. What are the proposed corrective actions to be taken if the grid voltage deviates from the TS required monitored value?
4. To assist the staff in evaluating whether there would be any additional risk to the plant associated with either the 127, 127Y or 127Z relay being inoperable (bypassed), provide a reliability history of these relays in terms of the "as found" and "as set" data for the last 5 years.