

## **UNITED STATES NUCLEAR REGULATORY COMMISSION**

WASHINGTON, D.C. 20555-0001

April 2, 1996

Mr. D. L. Farrar Manager, Nuclear Regulatory Services Commonwealth Edison Company Executive Towers West III 1400 Opus Place, Suite 500 Downers Grove, IL 60515

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR GENERIC LETTER 95-07, \*PRESSURE LOCKING AND THERMAL BINDING OF SAFETY-RELATED POWER-OPERATED GATE VALVES, " RELATED TO BRAIDWOOD STATION, UNITS 1 AND 2; BYRON STATION, UNITS 1 AND 2; ZION STATION, UNITS 1 AND 2; QUAD CITIES STATION, UNITS 1 AND 2; DRESDEN STATION, UNITS 2 AND 3, AND LASALLE COUNTY STATION, UNITS 1 AND 2 (TAC NOS. M93434, M93435, M93441, M93442, M93458, M93459, M93477, M93478, M93509, M93510, M93541 AND M93542)

Dear Mr. Farrar:

On August 17, 1995, the staff issued Generic Letter (GL) 95-07, "Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves," to request that licensees take actions to ensure that safety-related poweroperated gate valves that are susceptible to pressure locking or thermal binding are capable of performing their safety function within the current licensing bases of the facility. By letter dated February 13, 1996, Commonwealth Edison Company (ComEd), submitted its 180-day response to GL 95-07 for each of its facilities. Although the staff has not completed its review, it determined that ComEd has developed a methodology to predict the thrust requirement for gate valve actuators to overcome pressure locked conditions and, based on its preliminary understanding, believe it to be a valuable tool. The staff also understands that ComEd has performed testing to validate this methodology and that it is relying on it to justify the design basis capability of certain safety-related power-operated gate valves to perform their safety function within the current licensing bases of the ComEd facilities.

As discussed during a phone call on March 8, 1996, the staff has determined that it requires additional information to complete its review of the program that ComEd developed to address the concerns discussed in GL 95-07. Therefore, submission is requested of the following additional information: (1) the thrust prediction methodology (including the method for predicting actuator output capability), (2) the test procedures (including information specific to each test valve sufficient to perform the pressure locking calculations), (3) the test results (including the method for interpreting diagnostic equipment data), (4) the information regarding the diagnostic equipment used during testing (including calibration methods and diagnostic

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uncertainties), and (5) any limitations or conditions placed on the use of the methodology (i.e., valve size, type, temperature, pressure, etc.)

The Office of Nuclear Regulatory Research is sponsoring tests at the Idaho National Engineering Laboratory to study the effects of pressure locking and thermal binding on selected gate valves. When these test results are made publicly available, the information will be shared with interested licensees.

Upon completing a more thorough review of the ComEd submittal, the staff may request additional information and may also desire to meet with the cognizant members of the ComEd staff regarding its GL 95-07 program.

Sincerely,

Original signed by:

Clyde Y. Shiraki, Senior Project Manager Project Directorate III-2 Division of Reactor Projects - III/IV Office of Nuclear Reactor Regulation

Docket Nos. STN 50-456, STN 50-457, STN 50-454, STN 50-455, 50-295, 50-304, 50-237, 50-254, 50-265, 50-249, 50-373, 50-374

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