



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

January 23, 1991

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Document Control Desk

Subject: Dresden Nuclear Power Station Units 2 and 3
Technical Specification Amendment Schedule for
the Turbine Generator Load Rejection Scram
NRC Docket Nos. 50-237 and 50-249

- References: (a) R. Stols (CECo) letter to T. Murley (NRC),
dated December 18, 1990.
- (b) Conference Call on December 20, 1990 between
CECo (M. Richter) and NRR (Byron Siegel).

Dr. Murley:

Reference (a) recently submitted a Technical Specification amendment for Quad Cities Station Unit 1 to reflect the installation of a new design for the turbine fast acting solenoid valves (FASV), which initiate the rapid closure of the turbine control valves (TCV). The new design for the FASV utilizes a pressure switch (which senses electro-hydraulic control fluid pressure), in lieu of a limit switch, to initiate the turbine generator load rejection scram. Based on the Quad Cities Technical Specification amendment, a review of the current Dresden Station design determined that Units 2 and 3 currently utilize the same FASV design as that being installed in Quad Cities Unit 1. The FASV modifications for Dresden Station Units 2 and 3 were installed in December 1984 and February 1984, respectively. The status of the FASV pressure switches, as well as the status of the Dresden Station Technical Specifications (Units 2 and 3) with respect to those pressure switches, was discussed with your staff in the Reference (b) teleconference. During that discussion, it was requested that Commonwealth Edison Company (CECo) provide a letter documenting the teleconference and proposing a schedule for the submittal of amendments to the Dresden Station Technical Specifications. This letter presents that requested information, and the results of recent calibration activities on the FASV pressure switches.

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At the time of the Reference (b) teleconference (December 20, 1990), Unit 2 was in a refueling outage (D2R12) and Unit 3 was at approximately 43 percent power in single loop operation. Since the Technical Specifications allow the turbine generator load rejection scram to be bypassed when the first stage turbine pressure is less than that which corresponds to 45 percent rated steam flow, neither unit was in a condition which required the operability of the scram.

As required by the Technical Specifications, the TCV fast closure (load rejection) scram circuitry is functionally tested on a monthly basis in accordance with Dresden Operating Surveillance (DOS) 500-9, Turbine Control Valve Fast Closure (Load Reject) Scram Circuit Functional Test. This testing cycles each control valve, and ensures that the FASV pressure switch for each valve de-energizes the appropriate Reactor Protection System (RPS) channel. While DOS 500-9 functionally tests the FASV pressure switches (four per unit) on a monthly basis, it was determined that the switches had not been calibrated since January 6, 1989 for Unit 2, and April 22, 1988 for Unit 3. Based on this calibration record, the pressure switches for each unit were scheduled for calibration prior to exceeding the power level which required the operability of the turbine generator load rejection scram.

For Unit 2, the FASV pressure switches were calibrated on December 22, 1990, during the current Fall 1990 refueling outage (D2R12). The Unit 2 calibration results are documented in a station deviation report (12-2-90-159). The "as-found" trip settings were 384, 148, 460 and 420 psig. These "as-found" settings were below the 590 psig calibration setpoint, however, one pressure switch in each RPS channel had a setting which exceeded 400 psig. General Electric has defined the 400 psig limit as the setpoint which ensures that the pressure switch will generate a trip signal within 30 milliseconds after the start of control valve fast closure, which is consistent with the pressure switch response time assumed in the current turbine generator load rejection event analysis. In addition, response time testing performed in December 1989 satisfactorily demonstrated that the Unit 2 FASV pressure switches met the response time assumed by the analysis. The response time testing, the "as-found" switch settings and the monthly functional testing provide reasonable assurance that the Unit 2 FASV pressure switches would have provided a scram signal when required.

For Unit 3, the calibration of the FASV pressure switches was performed on January 16, 1991, during the current mid-cycle outage (which began on January 13, 1991). Calibration of the Unit 3 switches was not performed prior to this time due to the radiological conditions which exist in the vicinity of the switches during unit operation. To ensure Unit 3 would not exceed the power level which required the operability of the turbine generator load rejection scram prior to calibration of the pressure switches, unit operation was administratively restricted to below 45 percent rated steam flow.

The Unit 3 FASV pressure switch calibration determined "as-found" trip settings of 556, 552, 520 and 580 psig. In conjunction with the calibration, FASV pressure switch response time testing was performed. This testing verified that the response time of the switches at both the "as-found" setpoint and the calibration setpoint (590 psig) was within the pressure switch response time assumed in the current turbine generator load rejection event analysis.

Technical Specification amendments for Units 2 and 3 are currently scheduled to be submitted during the week of January 28, 1991. These amendments will incorporate the scram setpoint and calibration frequency requirement for the FASV pressure switches. It is CECO's understanding that this submittal date will allow sufficient time for NRC review prior to Unit 3 startup from the Spring 1991 refueling outage (scheduled startup date of June 9, 1991). It should also be noted that during the Spring 1991 refueling outage the Unit 3 FASV pressure switches will be calibrated to establish the refueling outage frequency which will be proposed in the Technical Specification amendment request.

Please contact this office should further information be required.

Respectfully,

Milton H. Richter

M. H. Richter
Nuclear Licensing Administrator

cc: A.B. Davis - Regional Administrator, Region III
B.L. Siegel - NRR Project Manager
D.E. Hills - Senior Resident Inspector, Dresden

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