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July 21, 1983

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: LaSalle County Station Units 1 and 2  
Revision to FSAR Table 14.2-123,  
Relief Valves Startup Test  
NRC Docket Nos. 50-373 and 50-374

Reference (a): License NPF-11, LaSalle County Station Unit 1.

Dear Mr. Denton:

Reference (a) states, in part,:

"2.C.(28) Initial Test Program (Section 14, SER)

The licensee shall conduct the post-fuel-loading initial test program (set forth in Section 14 of the licensee's Final Safety Analysis Report, as amended) without making any major modifications of this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- (a): Elimination of any test identified in Section 14 of the licensee's Final Safety Analysis Report, as amended as being essential;
- (b): Modification of test objectives, methods or acceptance criteria for any test identified in Section 14 of the licensee's Final Safety Analysis Report, as amended as being essential;
- (c): Performance of any test at a power level different from that described in the program, and
- (d): Failure to complete any tests included in the described program (planned or scheduled for power levels up to the authorized power level)."

The purpose of this letter is to confirm "prior NRC approval" to modify FSAR Table 14.2-123. Enclosed please find a revised copy of FSAR Table 14.2-123 as discussed with, and agreed to by Messrs. Bournia and Long of your staff during a telecon with Messrs. Bishop and Renwick of LaSalle County Station on July 6, 1983. As was discussed at that time, this revision deletes reference to measurement of relief valve capacity.

Boo!  
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July 21, 1983

The measurement of relief valve capacity during startup testing is no longer recommended by General Electric, who is now revising the LaSalle Startup Test Instruction to reflect this. Experience at other recent startups, and at LaSalle, has shown that the measurement gives inconclusive results. General Electric now suggests reliance on the ASME method for determining relief valve flow in accordance with "Pressure Relieving Device Certification" as specified by the National Board of Boiler and Pressure Vessel Inspectors. This documentation for LaSalle is on file with General Electric - San Jose and certifies the relief capacity to be consistent with FSAR Table 5.2-12.

The attached FSAR Table 14.2-123 revision has received review and approval by On-Site and Off-Site review. This change and changes to any other affected sections of the FSAR are expected to be included in FSAR Amendment 64. This change is provided by letter at this time, per the request of Messrs. Bournia and Long.

To the best of my knowledge and belief the statements contained herein and in the attachment are true and correct. In some respects these statements are not based on my personal knowledge but upon information furnished by other Commonwealth Edison and contractor employees. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

Enclosed for your use are one (1) signed original and forty (40) copies of this letter and enclosure.

If there are any further questions in this matter, please contact this office.

Very truly yours,

*CW Schroeder* 7/21/83

C. W. Schroeder  
Nuclear Licensing Administrator

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cc: NRC Resident Inspector - LSCS

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JULY 1981

TABLE 14.2-123

RELIEF VALVES STARTUP TESTPURPOSE

The purposes of this test are (1) to verify the proper operation of the primary system relief valves, (2) to verify that the discharge piping is not blocked, (3) to verify proper seating of each relief valve following operation, (4) to obtain signature information of relief valve operation for subsequent comparisons, ~~(5) to verify each relief valve's capacity,~~ and ~~(6) to confirm~~ (5) proper overall functioning of the low-low set pressure relief logic. ★

DESCRIPTION

The main steam relief valves will each be opened using the "manual" control mode so that at any time only one valve is open. During heatup at 250 psig, each valve will be opened and closed to demonstrate proper functioning. Flow verification of each relief valve will be determined at rated pressure by observing bypass or control valve motion and by observing a change in discharge thermocouple readings. Proper reseating of each relief valve will be verified by observation of temperatures in the relief valve discharge piping. At selected test conditions each valve will be manually actuated and appropriate system parameters recorded during the transient. Data analysis includes a comparison of relief valve response times to design values for each relief valve. To verify relief valve accumulator capacity, the MSRV with the highest nominal safety spring setting will be actuated while the MSRV accumulator air supply is isolated. ~~The capacity of each relief valve will be determined at rated pressure by the amount of bypass or control valve closure required to maintain reactor pressure.~~ ★

The response time on at least one of the valves will be recorded. The backpressure of the discharge lines having the highest calculated dp and the lowest calculated dp will be measured. During pressurization transients such as MSIV full closures and turbine trips/generator load rejection the operation of the safety grade low-low pressure relief logic system will be monitored. A comparison between the reactor pressure behavior and SRV actuations will be made to confirm open/close setpoints and containment load mitigation through the prevention of subsequent simultaneous SRV actuations.

TABLE 14.2-123 (Cont'd)

ACCEPTANCE CRITERIALevel 1

There should be positive indication of steam discharge during the manual actuation of each valve.

~~The sum total of the percentage corrected flow rates must be greater than 111.5% of the nuclear boiler warranted steam flow, at 103% of the spring setpoint pressure of 1165 psig.~~ ★

The low-low set pressure relief logic shall function to preclude subsequent simultaneous SRV actuations following the initial SRV actuation due to the original pressurization transient.

Level 2

No observable leakage shall exist following reclosure.

The pressure regulator must satisfactorily control the reactor transient and close the control and/or bypass valves ~~by an amount equivalent to the relief valve steam flow.~~ The transient recorded signatures for each valve must be analyzed for a relative system response comparison. The delay time (between trip and motion) shall be  $\leq 0.1$  seconds and the response time (main disc stroke time) shall be  $\leq 0.15$  seconds. ★

~~No individual relief valve may have a flow rate (corrected to the setpoint pressure) that, considering measurement uncertainties, is less than 90% or greater than 122.5% of its expected flow rate of 862,400 lb/hr at 103% of the spring setpoint pressure of 1146 psig.~~ ★

~~No more than 25% of the installed relief valves may have an individual corrected flow rate that is between 90% and 100% of their expected flow rates.~~ ★

~~The total flow capacity of the safety/relief valves used in the Automatic Depressurization System must be equal to or greater than  $4.8 \times 10^6$  lb/hr at 1125 psig when the valve having the highest measured capacity is assumed to be out of service.~~ ★

The selected MSRV with the highest nominal safety spring setting must indicate fully open when manually actuated with air supply to its accumulator isolated and vented.

Discharge line back pressure shall be comparable with information presented on the Nuclear Boiler Process Flow Diagrams.

Steam flow through each relief valve as measured by the initial and final ~~14.2-259~~ bypass valve positions shall not be less than 10 % of valve position below the average of all valve position responses



TABLE 14.2-123 (Cont'd)

When the low-low pressure relief logic functions, the open/close actions of the SRV's shall occur within  $\pm 13$  psi and  $\pm 20$  psi of their design points, respectively.

INITIAL CONDITIONS

1. All construction tests and preoperational tests are completed and approved.
2. Instrumentation has been installed and calibrated.
3. All systems are operational to the extent required to conduct the test.