



**Commonwealth Edison**

One First National Plaza, Chicago, Illinois

Address Reply to: Post Office Box 767

Chicago, Illinois 60690 - 0767

May 9, 1988

U.S. Nuclear Regulatory Commission  
Washington, DC. 20555

Attention: Document Control Desk

Subject: LaSalle County Station Unit 1  
Startup From Cycle Three Reload  
Clarification of Required  
Technical Specification Changes  
NRC Docket Nos. 50-373

References: (a) Letter dated January 19, 1988 transmitting  
Reload Licensing Package for LaSalle Unit 1 Cycle 3  
(b) Letter dated April 15, 1988 transmitting response to  
Confirmatory Action letter CAL-RIII-88-03  
(c) Letter dated April 26, 1988 transmitting  
Core Performance Monitoring Technical Specification  
Change Request for LaSalle Units 1 and 2

Dear Sir:

This letter is to clarify some of the circumstances regarding the Commonwealth Edison (CECo) response to the LaSalle Confirmatory Action Letter (CAL), Reference (b) and the request for a technical specification change involving Core Performance Monitoring (Reference (c)). This clarification is necessary to document that concerns expressed by the NRC Augmented Inspection Team (AIT) have been addressed adequately to enable LaSalle Unit one to startup following the current refuel outage.

The response to the Unit 2 CAL (Reference (b)) indicated that CECo was to evaluate the adequacy of existing technical specifications, operating procedures, abnormal operating procedures and emergency procedures with respect to this event and vendor recommendations described in GE SIL-380. That was done and the results were discussed in reference (b), pages A-9 through A-11 (enclosed). Those procedure changes have been completed and have been issued for both Units 1 and 2. Additionally, Special Operating Order 88-21 was issued directing the operators to initiate a manual scram in the event that no reactor recirculation pumps are in operation. The requirements in this standing order will remain in effect until the Core Performance Monitoring Technical Specification change has been approved and issued.

8805310154 880509  
PDR ADDCK 05000373  
P DCD

A001  
11

The technical specification changes to allow startup of Unit 1 were submitted in Reference (a). In that submittal LaSalle Unit 1 was addressed as a core having a low ( .75) decay ratio. Following the March 9, 1988 event on LaSalle Unit 2, a proposed Core Performance Monitoring Technical Specification change was submitted which in effect treated the unit as a high decay ratio core until more conclusive information can be obtained about the mechanics of the event. The original reload submittal has been supplemented by an extensive review and revision of all applicable procedures and described in the response to the Confirmatory Action Letter, Reference (b). These procedures are consistent with the proposed Core Performance Monitoring technical specification and will remain intact in substance after implementation of the approved technical specification. In addition, a special operating order has been written which is more restrictive than the proposed technical specification. The requirements of this special order will remain in place until the proposed Core Performance Monitoring Technical Specification is approved.

These compensatory measures, which have been discussed with members of your staff, provide adequate protection from an event similar to that of March 9, 1988. Based on these considerations, Commonwealth Edison understands that formal approval of the proposed Core Performance Monitoring Technical Specification is not a requirement for startup of LaSalle Unit 1 from cycle 3 refuel.

If you have any additional questions regarding this matter please contact this office.

Very truly yours,



C. M. Allen  
Nuclear Licensing Administrator

/klj

encl.

cc: P. Shemanski  
L. Phillips (NRR)  
Resident Inspector LaSalle  
M. Ring(RIII)  
Region III Administrator

4603K

3. Evaluate the adequacy of your Technical Specifications, operating procedures, abnormal operating procedures, and emergency procedures with respect to this event and vendor recommendations (GE SIL-380)

Following the scram of LaSalle Unit 2 on March 9, 1988, a review of operating procedures for normal and abnormal situations involving Reactor Recirculation (RR) pumps and/or core flow changes was conducted. Procedure changes were implemented which were intended to improve the timeliness of operator response to RR pump trips and/or neutron flux instabilities. The following list of procedures outlines the changes which were initiated. All procedure revisions are complete.

1. ABNORMAL PROCEDURES (LOA)

LOA-RR-06 SINGLE RR PUMP TRIP

Immediate Action: Insert CRAM rods to 00 if Flow Control Line (FCL) was >80% prior to pump trip, frequently MONITOR APRM and LPRM flux indications and either increase flow on the operating RR loop or decrease power with rods to exit region. Reference operator to LOA-RR-09 if instability is suspected.

Subsequent Action: Perform Stability surveillance LOS-RR-SR1, i.e., in SLO, may be in surveillance region.

LOA-RR-07 TWO RR PUMP TRIP

Immediate Action: Insert CRAM rods to 00 if FCL >80% prior to pump trip, and continue to insert rods to below 80% FCL, MONITORING APRM/LPRM noise. Reference LOA-RR-09 if instability is suspected.

Subsequent Action: Perform Stability surveillance LOS-RR-SR1

Added explanation of instabilities in Discussion section, including wording that states "Unstable neutron flux oscillations have occurred . . ." to emphasize that the phenomenon has actually been experienced. Explained that the basis of not restarting tripped pump(s) until below 80% FCL is to avoid diversion of operators attention from stability concerns.

LOA-RR-09 CORE INSTABILITIES (NEW PROCEDURE)

The operator is directed to this procedure by the RR pump trip LOA's, LPRM HI, APRM HI, LPRM DOWNSCALE, Thermal Hydraulic Stability Surveillance, Restart of Tripped pump(s), Changing RR pump speed from HI to LOW speed, and Pump Shutdown procedures whenever instability is suspected.

Immediate Actions: If FCL >80% and Core Flow <45%, insert CRAM rods to 00, then insert rods in sequence to get below 80% FCL. MONITOR APRM/LPRMs. If instabilities have not been terminated within 2 minutes SCRAM reactor.

Subsequent Actions: Perform LOS-RR-SR1, reduce FCL to below 80%, and continue monitoring APRM/LPRMs.

LOA 1(2)H13-P603:

WINDOW A407                      LPRM DOWNSCALE

Note that a regular cycling of this alarm, especially at a 2-3 second period could be indicator of instability. Instructs operator to select the "yellow" stability monitoring rods. Refers to LOA-RR-09 if instability is suspected. Notes that Full-core display maybe observed for multiple alarms.

WINDOW A108                      APRM HI

Instructs operator to observe APRM recorders and LPRM meters for flux oscillations >10% peak-to-peak. Refers to LOA-RR-09 if instability is suspected.

WINDOW A307                      LPRM HI

Notes that periodic alarm may indicate instability. Instructs operator to select "yellow" stability monitoring rods. Refers to LOA-RR-09 if instability is suspected. Discussion describe conditions of possible instability, and indications, especially 2-3 second period.

2. SURVEILLANCES

LOS-RR-SR1 THERMAL HYDRAULIC STABILITY SURVEILLANCE

Revisions were made to let the operator obtain the raw noise data without delay, then compare to baseline data. A fixed criteria of 10% was introduced which would enable the operator to take corrective action prior to comparing all the results to 3 times the baseline.

Certain Control Rods highlighted with a yellow background to enable quick selection for LPRM monitoring.

The surveillance sheet was also re-formatted to eliminate look-ups by the operator, for determination of rod selections/core regions.

LOA-RR-09 is referenced for instability indications.

3. OPERATING PROCEDURES

LOP-RR-06 RESTART OF TRIPPED RR PUMP

Add reference to LOA-RR-09. Add prerequisite FCL less than or equal 80%. Add NOTE to watch out for instabilities with less than 45% Core Flow before/during decreasing flow on active loop to meet pump start requirements.

LOP-RR-08 CHANGING RR PUMPS FROM FAST TO SLOW

Add reference to LOA-RR-09. Add precaution that downshift, if above 80% FCL could result in operation inside stability surveillance region, and possible instabilities could result, complete FCL reduction to below 80% FCL if possible, prior to downshift. The first step after verifying proper RR equipment operation on downshift is to VERIFY core stability per LOS-RR-SR1.

LOP-RR-09 REACTOR RECIRCULATION PUMP SHUTDOWN

Add reference to LOA-RR-09. Add precaution that the flow decrease from RR pump shutdown may result in entry into stability surveillance region. Complete FCL reduction to <80% FCL prior to pump shutdown, if possible.

Instructs operator to VERIFY core stability after pump shutdown, referring to LOA-RR-09 if instability is suspected.

LTS-1200-4 NUCLEAR ENGINEERS DAILY SURVEILLANCE

Added procedure steps to ensure that the CRAM array check on the checklist includes verification that all CRAM rods are properly indicated with RED tape on select buttons.

LAP-100-13 CONTROL ROD SEQUENCE PREPARATION

--PROCEDURE DEFICIENCY WRITTEN, NO REVISIONS PERFORMED--

Procedure changes incorporated the requirement for the Nuclear Engineer to place and verify RED tape on the associated CRAM rod select buttons. Operator instructions to continuously insert all "taped" rods to position 00 and then sign off the appropriate INSERT steps, was incorporated. Attachment G (CRAM Array instructions) was revised to require the Nuclear Engineer to record the specific rods associated with the designated CRAM arrays.

In addition to the procedure review discussed above the Unit 1 and Unit 2 Technical Specifications were reviewed. As a result of discussions held with the AIT team members revisions to the LaSalle Unit 1 and Unit 2 Technical Specifications have been prepared and submitted to Offsite Review.

The revised procedures are fully consistent with General Electric Service Information Letter (SIL) 380 Revision 1. Changes to procedures needed to be consistent with the proposed Technical Specifications will be incorporated upon approval of the Technical Specification.

The Confirmatory Action Letter (CAL) RIII-88-03 directed the Station to initiate a Manual Scram in the event that no reactor recirculation pumps are in operation in Conditions 1 or 2. This requirement has been provided to Station Operators via Special Operating Order 88-21. This Special Operating Order was reviewed by the AIT team leader prior to startup of Unit 2 following receipt of the CAL.