Commonwealth Edison
Quad Cities Nuclear Power Station
22710 206 Avenue North
Cordova, Illinois 61242-9740
Telephone 309/654-2241

RAR-90-67

September 4, 1990

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

SUBJECT: Quad Cities Nuclear Station Units 1 and 2
Changes, Tests, and Experiments Completed
NRC Docket Nos. 50-254 and 50-265

Enclosed please find a listing of those changes, tests, and experiments completed during the month of August, 1990, for Quad-Cities Station Units 1 and 2, DPR-29 and DPR-30. A summary of the safety evaluations are being reported in compliance with 10CFR50.59 and 10CFR50.71(e).

Thirty-nine copies are provided for your use.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

R. A. Robey
Technical Superintendent

RAR/LFD/do

Enclosure

cc: A.B. Davis, Regional Administrator
T. Taylor, Senior Resident Inspector

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Special Test #1-136
Safety Evaluation #89-395
Unit One Cycle 11 Startup Test

Description

Special Test No. 1-136 was completed on July 27, 1990. The purpose of this test was to perform the required cycle 11 startup tests on Unit 1 following refueling outage number 10. The following is a list of system and components affected:

0201 Jet Pumps
0202 Recirculation System
0280 Rod Position Indication System
0300 Control Rod Drive Hydraulics and Scram Air System
0703 TIP Drive Mechanism
0755 SRM/IRM Neutron Monitoring
0756 LPRM's and APRM's
1279 Reactor Cleanup Filter Demineralizers
1904 Filter Demineralizer System
3200 Feedwater
5500 Condensate Demineralizer
9900 Computer (PRIME, Process)

Evaluation

1. The procedures in this Startup Test are the latest revision of the approved station procedures or an approved temporary change to the procedure. No changes have been made to any of the procedures without a proper evaluation with regard to the FSAR.

2. The normal function and intent of all systems involved in the test will not be altered. No unusual or unanalyzed equipment configurations are called for by any of the test procedures.

3. The purpose of the Startup Test is to satisfactorily demonstrate that the current Technical Specifications can be met for the upcoming cycle. No Technical Specification change is therefore necessary.

Special Test #1-141
Safety Evaluation #90-280
Monitor Control Room, Control Panel Temperatures

Description

Special Test No. 1-141 was completed on August 1, 1990. The purpose of this test was to record pertinent control panel temperature data and determine control panel temperatures at various control room operating temperatures.

Evaluation

It was determined that no 10CFR50.59 Safety Evaluation was required for this special test.

Safety Evaluation #90-547
Program Change to the Data Bank Dump Program

Description

This change was due to a program error. Exposure information was not being automatically transferred. The program was modified to make the correct transfers every month.

Evaluation

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the Final Safety Analysis Report is not increased because the data generated by CMC will not be altered. It is currently supposed to be transferred once per month. Correcting an error that is preventing transfer will not affect safety as previously evaluated.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the Final Safety Analysis Report is not created because the software change has been tested and controlled. No changes have been made that will affect accuracy of data transferred to NFS.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this change has no effect on the operating thermal limits discussed in the Tech Specs.

Safety Evaluation #90-551
Proposed Technical Specification MCPR
Safety Limit Change

Description

This changed the MCPR Safety Limit for Quad Cities Unit 1 Cycle 12 from 1.07 to 1.06.

Evaluation

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the Final Safety Analysis Report is not increased because the 1.06 safety limit MCPR value preserved the required margin of safety for clad integrity. This safety limit MCPR ensures that 99.9% of the fuel rods would be expected to avoid boiling transition during steady-state or transient conditions with a 95% confidence level. The new fuel type (GE8x8NB) and analytical methods for establishing the safety limit have received NRC approval. Thus, this change did not increase the probability or consequences of a previously evaluated accident in the Final Safety Analysis Report.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the Final Safety Analysis Report is not created because the primary fission product barrier will continue to be protected during normal and transient operation. Operation of all secondary fission product barriers are unaffected by this change. No new operational modes are introduced by this change. Therefore, the possibility for an accident or malfunction of a different type than any previously evaluated in the Final Safety Analysis Report is not created.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the margin of safety is not reduced. The proposed Technical Specification change reflects the required safety limit for GE8x8NB fuel specified in GESTAR. GESTAR ensures that 99.9% of the fuel rods would be expected to avoid boiling transition during steady-state or transient conditions with a 95% confidence level.

Safety Evaluation #90-576
Feedwater Pump Minimum Flow Line to
Condenser Isolation

Description

This change quantified the leakage past PCV 1-3201A. Temporarily closed the 1-3213A valve, which is a manual - normally open, S-locked isolation valve to the condenser.

Evaluation

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the Final Safety Analysis Report is not increased because the worst case would be the loss of the 1A-3201 feed pump and the FSAR evaluation is for the loss of all three feed pumps. In addition, the feedwater system is not safety related. Finally, the unit operator will be aware of the situation and an operator will be available to open the valve as needed.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the Final Safety Analysis Report is not created because the loss of feedwater accident is the only potential accident scenario for this work. Not allowing minimum flow for the feed pump could cause a pump malfunction but it is also covered in the evaluation for loss of feedwater.

3. The margin of safety, as defined in the basis for any Technical Specifications, is not reduced because the feedwater system does not constitute the basis for any Technical Specifications.

Safety Evaluation #90-585
FSAR Change (Sections Listed on QTP 200-86)

Description

This change corrected out-dated information contained in the FSAR.

Evaluation

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the Final Safety Analysis Report is not increased because it does not involve equipment.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the Final Safety Analysis Report is not created because this change does not affect equipment or operation of plant.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this is an Administrative type change only.

Procedure Changes QOS 300-1 and 300-12
Revisions 8 and 5
CRD Weekly Exercise

Description

These changes address: 1) Credit for the procedure in the Inservice Testing Program, 2) Additional precautions and data taking from Deviation Report 4-1-89-14 and Special Test 1-142, 3) Incorporation of QOS 300-12 into QOS 300-1 for additional and more accurate data taking, and 4) Clarification of a mispositioned control rod.

Evaluation

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the Final Safety Analysis Report is not increased because the changes do not affect the function of the procedures nor do they affect the FSAR Section 10.5.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the Final Safety Analysis Report is not created because the changes to the procedures do not affect the FSAR, therefore the possibility of a different type of accident has not been created.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the purpose of the procedure is to identify any inoperable control rods by exercising them once per week (T.S. 4.3.2). The changes to the procedure do not affect this function, therefore the margin of safety has not been reduced.

Procedure Change QOS 1600-14, Revision 10
Pressure Suppression System Power Operated
Valve Testing - Quarterly

Description

The 1601-20A and 1601-20B valves are now tested quarterly as a part of this procedure and deletes the QOS 1600-29, which tested them at cold shutdown.

Evaluation

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the Final Safety Analysis Report is not increased because existing operating steps were added to procedure from QOS 1600-29. No new methods were introduced which would increase the probability of an occurrence, consequence of an accident, or malfunction of equipment important to safety.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the Final Safety Analysis Report is not created because revision uses existing operating steps from QOS 1600-29 and does not introduce any new or different methods which would create the possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the change just moves existing operating steps from one procedure to another. The margin of safety remains unchanged.

Procedure Change QOS 2300-1, Revision 20
HPCI Monthly and Quarterly Test

Description

This revision provided steps to time the HPCI stop valve in open and closed directions and also added a a step to verify that check valve 2301-40 strokes to the full open position.

Evaluation

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the Final Safety Analysis Report is not increased because the HPCI system valve line up and operating methods added does not affect the way HPCI is run and does not subject the HPCI to any adverse conditions which would increase the probability of an occurrence or accident.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the Final Safety Analysis Report is not created because the HPCI system will not be placed in any unusual modes of operation which would create a possibility of an accident or malfunction.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because the HPCI will not be placed in any unusual modes of operation.

Redundant Access Control System (RACS)

Description

This change upgraded the existing RACS software to successfully pass: The card reader control test, the alarm monitoring test, transaction storage test, and random selection test. These functional requirements are described in software activity request #559, dated July 23, 1990.

Evaluation

1. The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the Final Safety Analysis Report is not increased because reliability of the entire access control system is increased after the upgrade. This, however, has no bearing on the probability or consequence of an accident or malfunction of equipment important to safety since analysis take no credit for this redundant security system.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the Final Safety Analysis Report is not created because this upgrade does not alter the description of any equipment or systems important to safety as previously evaluated by the FSAR. Installation of this software involves non-safety related equipment which is located remote from any safety related equipment.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because this upgrade does not alter or affect any equipment described in the Technical Specification. Therefore, the margin of safety will not be reduced.