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AMS-94-025

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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 facility and procedure changes, tests, and experiments requiring safety evaluations completed during the month of August, 1994, 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).

Respectfully,

ComEd
Quad-Cities Nuclear Power Station

Anthony M. Scott
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AMS/dak

Enclosure

cc: J. Martin, Regional Administrator
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SAFETY\NRC.LTR

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DESCRIPTION:

Manual valve 2-1601-76 was closed and used as a Primary Containment Isolation boundary while maintenance work was performed on O₂ analyzer return valve 2-8804. Valve 2-1601-76 was OOS closed and verified at least once per day. Maintenance work was performed as required on the solenoid, solenoid valve, valve operator, and valve internals. The valve was not removed and therefore the structural integrity of the piping remained intact.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Normal Feedwater Flow	UFSAR Section 15.2.7
Inadvertent Opening of an SV, RV, or an SRV	
Loss of Coolant Accidents	UFSAR Section 15.6.1
Resulting from Piping Breaks	
Inside Containment	
Loss of Normal AC Power	UFSAR Section 15.6.5
Loss of Normal Feedwater Flow	UFSAR Section 15.8.2
	UFSAR Section 15.8.3

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

SE-94-067 CONTD

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because valves 2-1601-76 and 2-8803 will be maintained closed to provide a Primary Containment Isolation boundary on both sides of valve 2-8804. An LLRT will be performed prior to opening valve 2-8804 in order to ensure the integrity of valves 2-1601-76 and 2-8803. This evaluation does not allow the removal of valve 2-8804 and therefore the structural integrity of the piping will remain intact.
3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because manual valve 2-1601-76 is part of the LLRT boundary when 2-8804 or 2-8803 is tested and any leakage for 2-1601-76 is part of the acceptable leakage rate for the PCI valves 2-8804 and 2-8803.

Standard Tech Specs states that with one or more PCI valves inoperable, maintain at least one isolation valve operable for the affected penetration and within 4 hours isolate the affected penetration using one deactivated automatic valve or one manual valve or a blind flange.

SE-94-068
QCTS 600-55 (Interim Procedure)

DESCRIPTION:

Revised station procedure QCTS 600-55 so that a Local Leak Rate Test (LLRT) may be performed on Primary Containment Isolation Valves AO 1(2)-8803 and AO 1(2)-8804 with the unit at power operations as well as in an outage. The vent path for AO 1(2)-8803 and AO 1(2)-8804 was back to the drywell through the return path for the O₂ analyzer, which was set-up in an alternate configuration in accordance with station procedure QCCP 1300-1, Step H.3. The LLRT test pressure was determined by adding the O₂ analyzer sample pump outlet pressure to the normal LLRT test pressure of 48 psig.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Normal Feedwater Flow	UFSAR Section 15.2.7
Inadvertent Opening of an SV, RV, or an SRV	UFSAR Section 15.6.1
Loss of Coolant Accidents Resulting from Piping Breaks Inside Containment	UFSAR Section 15.6.5
Loss of Normal AC Power	UFSAR Section 15.8.2
Loss of Normal Feedwater Flow	UFSAR Section 15.8.3

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because valves 1(2)-1601-76 and either 1(2)-8803 or 1(2)-8804 will be maintained closed to provide Primary Containment Isolation boundary. Any LLRT test leakage past the valves will vent to Primary Containment with no affect on the function of plant equipment and no affect on the probability of an accident. The air leakage due to this LLRT would be minimal and would be too small to have any affect on the nitrogen inerting of Primary Containment.

The test tap will be un-isolated (open test valves) and the test cap removed for the performance of the LLRT only. The test valve(s) will be closed and the test cap re-installed upon completion of the LLRT.

The test line is 3/4" diameter and therefore any leakage past the PCI boundary valves due to an accident would be minimal. This leakage would be contained by Secondary Containment.

3. The margin of safety, as defined in the basis for any Technical Specification, is not reduced because a Primary Containment Isolation boundary will be maintained with Valves 1(2)-1601-76, and either Valve 1(2)-8803 or 1(2)-8804 closed. Standard Tech Specs states that with one or more PCI valves inoperable, maintain at least one isolation valve operable for the affected penetration and within 4 hours isolate the affected penetration using one deactivated automatic valve or one manual valve or a blind flange.

Valves 1(2)-1601-76, 1(2)-8803, and 1(2)-8804 were verified acceptable by the last LLRT performed.

As an extra precaution, Valves 2-1601-76 and 2-8803 will be tested prior to performing work on Valve 2-8804. Valve 2-8803 will be maintained closed except when the post-maintenance LLRT for valve 2-8804 is performed.

DESCRIPTION:

Added steps to prevent water intrusion into the RCIC turbine.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

Loss of Coolant Accident

UFSAR Section 15.6

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the changes made to this procedure do not create the possibility of an accident different from those evaluated in the UFSAR. The simulation of the ECCS signal and verified response of the ECCS systems will remain the same as in the original procedure. These changes only clarify the information to be verified, the order they are verified in, and minimize redundant testing performed in this surveillance.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

Temp Alt for 2B/C RHRSW Vault for RHRSW Motor Filters

DESCRIPTION:

Filter media was placed over the 2B and 2C RHRSW pump motor ventilation louvers to prevent foreign material from entering the motor during pipe preparation for UT. The filter media has screening material on both the motor side and the outside of the media. Duct tape was taped to the motor casing to seal the filter media securely and in a manner as to not block or hamper any flow of ventilation.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

The accidents which meet these criteria are listed below:

LOCA	UFSAR SECTION	15.6.5
LOOP	UFSAR SECTION	8.3.1

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because this change will reduce the probability of accidental damage disabling the RHRSW pump motor while various activities are performed in the area.

The filter media and screening will only be in place during piping preparation for UT (1 week).

This change does not affect the operation of the RHRSW pumps. If the filter and screen were to fall off, the pump would still be able to function. The RHRSW system is designed with redundant pumps and would still be capable of performing all design functions.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

M04-0-92-013
SBGT Flow Switch Replacement

DESCRIPTION:

This modification replaced the flow transmitters FT-1/2-7541-6A/B and flow switches FS-1/2-7541-8A/B and FS-1/2-7541-33A/B.

The original flow transmitters were considered non-safety related. The new transmitters are procured and designed Class 1E (safety-related) with seismic and environmental qualification. The new transmitters are electronic, instead of pneumatic.

In the new configuration, the transmitters provide a signal to new trip units in the Analog Trip System (ATS), instead of the current pressure switches. The use of the Analog Trip system is consistent with other safety related, EQ instrumentation at Quad Cities.

The changes were made to eliminate the dependency of the SBGTS heater controls and automatic transfer (to the standby train on low air flow in the primary train) on the continued availability of Instrument Air. This modification restored the system to its original design basis, which did not depend on the function of the non-safety related Instrument Air System.

New cables were installed between the SBGTS trains and the Auxiliary Electric Room, where the Analog Trip System is located. New trip units and relays were added to the ATS panels to accommodate the new instrument loops.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed

The accidents which meet these criteria are listed below:

Large Break LOCA	UFSAR SECTION	15.6.5
Fuel Handling Accident/Drop	UFSAR SECTION	15.7.2

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the logic changes to the Standby Gas Treatment system do not change the way the system is operated or its efficiency under normal operating conditions. The method of train transfer on low system flow becomes electronically controlled and not pneumatically controlled by removing instrument air from the flow element. This does not introduce any new accidents and removes existing possibilities for malfunctions when Instrument Air is not available to the system.
3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.

E04-0-94-166

Installation of a 1" Drain Line with
Valve on the Discharge Header to the 1/2 "A" & "B"
Diesel Fire Pump

DESCRIPTION:

Installation of a 1" drain line with a 1" gate valve on the discharge header to the 1/2 "A" Diesel Fire Pump (1/2-4102A). This work was completed on line 1/2-4102-10"-0, located in the Cribhouse just below floor elevation. Presently, there is no drain line anywhere on this discharge piping to help facilitate draining of this particular line.

The work associated with this Exempt Change was classified as Regulatory Related since it made a modification to the Fire Protection System. This work is NOT Safety Related nor seismic. There are no Unreviewed Safety Questions associated with this Exempt Change. Nor are any revisions required to the UFSAR or the Technical Specifications as a result of this work.

SAFETY EVALUATION SUMMARY:

1. The change described above has been analyzed to determine each accident or anticipated transient described in the UFSAR where any of the following is true:
 - The change alters the initial conditions used in the UFSAR analysis.
 - The changed structure, system or component is explicitly or implicitly assumed to function during or after the accident.
 - Operation or failure of the changed structure, system, or component could lead to the accident.

For each of these accidents, it has been determined that the change described above will not increase the probability of an occurrence or the consequence of the accident, or malfunction of equipment important to safety as previously evaluated in the UFSAR.

2. The possibility for an accident or malfunction of a different type than any previously evaluated in the UFSAR is not created because the 1" drain line to be installed has no interface, impact or adverse affect on any system other than the Fire Protection System. The worse possible event that could occur as a result of this Exempt Change is failure of the 1" drain line during a fire in the Station. Although this is a highly incredible event, this failure would not hinder the Fire Protection System to perform its intended

function. Each of the Diesel Fire pumps are rated at 2,000 GPM, for a total flow of 4,000 GPM of fire protection water. A failure of the 1" line would remove no more than 20 GPM from the total flow of 4,000 GPM delivered by both Diesel Fire Pumps.

3. The margin of safety, is not defined in the basis for any Technical Specification, therefore, the safety margin is not reduced.