ATTACHMENT I TO IPN-98-128

Supplement To Emergency Technical Specification Change Request

Associated With

Leakage Testing of Seven Containment Isolation Valves With Water

Applies to the following valves:

AC-732
AC-MOV-743
AC-MOV-744
SI-MOV-888A
SI-MOV-888B
AC-AOV-958
AC-MOV-1870

This attachment contains the following parts:

1. Proposed Revised Technical Specification Pages
2. Safety Evaluation for the Proposed Changes

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPR-64

ATTACHMENT I, PART 1 TO IPN-98-128

Proposed Revised Technical Specification Pages

Associated With

Leakage Testing of Seven Containment Isolation Valves With Water

Applies to the following valves:

AC-732
AC-MOV-743
AC-MOV-744
SI-MOV-888A
SI-MOV-888B
AC-AOV-958
AC-MOV-1870

Affected Technical Specification pages:

Table 4.4-1, (Page 1 of 7)
Table 4.4-1, (Page 7 of 7)

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TABLE 4.4-1 (Page 1 of 7)

CONTAINMENT ISOLATION VALVES			
Valve No.	Penetration Number[1]	Test Fluid[2]	Minimum Test Pressure (PSIG)[8]
RC-AOV-549	1	Water[4]	47
RC-AOV-548	1	Water[4]	47
RC-518	2	Gas	43
RC-AOV-550	2	Gas	43
RC-AOV-552	3	Water[4]	47
RC-AOV-519	3	Water[4]	47
AC-741	4	Water[5]	47[3]
AC-MOV-744	4	Nitrogen[4][9]	43[3]
SI-MOV-888A	5	Nitrogen[4][9]	43
SI-MOV-888B	5	Nitrogen[4][9]	43
AC-AOV-958	5	Nitrogen[4][9]	43
SP-AOV-959	5	Nitrogen[4]	43
SP-990C	5	Nitrogen[4]	43
AC-MOV-1870	5	Nitrogen[4][9]	43
AC-MOV-743	5	Nitrogen[4][9]	43
AC-732	6	Nitrogen[4][9]	43[3]
SI-MOV-885A	7	Water[5]	47
SI-MOV-885B	7	Water[5]	47
CH-AOV-201	8	Water[4]	47
CH-AOV-202	8	Water[4]	47
CH-MOV-205	9	Water[4]	47
CH-MOV-226	9	Water[4]	47
CH-227	9	Water[4]	47
CH-MOV-250A	10	Water[4]	47
CH-MOV-441	10	Water[4]	47
CH-MOV-250B	10	Water[4]	47
CH-MOV-442	10	Water[4]	47
CH-MOV-250C	10	Water[4]	47

CONTAINMENT ISOLATION VALVES

NOTES:

1. Reference: FSAR Table 5.2-1, Penetration No.

2. Gas Test Fluid indicates either nitrogen or air as test medium.

3. Testable only when at cold shutdown.

4. Isolation Valve Seal Water System.

5. Sealed by Residual Heat Removal System fluid.

6. Sealed by Service Water System.

7. Sealed by Weld Channel and Penetration Pressurization System.

8. The minimum test pressure may be reduced by 2 psig until the current requirements associated with the Boron Injection Tank are removed (see Tech Spec 3.3.A.3.b).

9. Type C testing is not required until startup from refuel outage 10 because the lines and valves are filled with water for thirty days after a postulated design basis accident and therefore do not constitute a potential containment atmospheric pathway.

ATTACHMENT I, PART 2 TO IPN-98-128

Supplemented Safety Evaluation of Technical Specification Changes

Associated With

Leakage Testing of Seven Containment Isolation Valves With Water

Applies to the following valves:

AC-732
AC-MOV-743
AC-MOV-744
SI-MOV-888A
SI-MOV-888B
AC-AOV-958
AC-MOV-1870

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
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Section I - Description of Changes

This application for amendment to the Indian Point 3 (IP3) Technical Specification (TS) proposes to revise TS Table 4.4-1 to eliminate the Type C testing of seven containment isolation valves until startup from refueling outage 10. Specification Table 4.4-1 states that containment isolation valves AC-732, AC-MOV-743, AC-MOV-744, SI-MOV-888A, SI-MOV-888B, AC-AOV-958 and AC-MOV-1870 will be tested using the test medium of nitrogen. The proposed change will add a note (9) to containment isolation valves AC-732, AC-MOV-743, AC-MOV-744, SI-MOV-888A,SI-MOV-888B, AC-AOV-958 and AC-MOV-1870 that says "Type C testing is not required until startup from refuel outage 10 because the lines and valves are filled with water for thirty days after a postulated design basis accident and therefore do not constitute a potential containment atmospheric pathway."

Section II - Evaluation of Changes

Evaluation of Basis for Emergency Situation

The Authority has requested that this proposed change be processed as an emergency change per 10CFR50.91(a)(5), since insufficient time exists to provide a 30-day public comment period without delaying the resumption of plant operation.

This emergency situation occurred because the seven containment isolation valves have been Type C tested using nitrogen on top of water that is normally present within these piping lines and valves. It was not recognized until several days ago that this testing does not comply with the requirements of Technical Specification 4.4 for Type C testing of containment isolation valves with nitrogen. The reasons that this emergency situation occurred and why it could not be avoided are explained below.

The noncompliance with testing requirement to use nitrogen was identified during an extent of condition review being performed as a result of another plant identified deficiency in containment isolation valve testing. Corrective action has been determined to be impractical. Several options that were assessed are:

- The Isolation Valve Seal Water System (IVSWS) that provides nitrogen to the seven valves using manual action after a postulated design basis accident is not a seal water system as defined by 10CFR50 Appendix J. If it did meet these requirements, it may have been possible to retest the valves as part of a seal water system. It is not practical to qualify it as such (this would require significant modification) so the TS requirement for Type C testing applies.

- Corrective action by Type C testing of the seven containment isolation valves has been determined to impose a significant schedule delay because of the need to drain the lines of the fluid normally filling the lines, and the plant conditions required to achieve this. Draining the lines associated with AC-732 and AC-MOV-744 would require an interruption of residual heat removal and the need for removing the reactor vessel head and filling the refueling canal and possibly a reactor core offload. Draining of the lines associated with AC-MOV-743, SI-MOV-888A, SI-MOV-888B, AC-AOV-958 and AC-MOV-1870 would require isolating the residual heat removal (RHR) mini-flow line (RHR would have to be shutdown to do this). This presents a risk of degrading the RHR pumps following any event that limits RHR flow. Additionally, this would

remove normal Safety Injection (SI) system capability as a backup to the RHR system during this testing (32 SI pump would still have an alternate suction). Also, the doses to plant personnel associated with changing plant conditions to permit all gas testing and performing the testing itself would be avoided.

NYPA is currently evaluating the reasons for not previously identifying this non-compliance with testing requirements. At this time it is known that a question arose regarding the methodology of testing with nitrogen over water. This question was assessed in December of 1994 and it was concluded that the testing methodology was acceptable. At that time the TS said "Isolation valves in Table 4.4-1 which are pressurized by the Isolation Valve Seal Water System shall be tested at intervals no greater than 30 months (24 months + 25%) as part of an overall Isolation Valve Seal Water System Test." The Table identified water or nitrogen as the test fluid depending on whether the IVSWS supplied water or nitrogen to the valve. At the time, the issue was not identified because the expected accident condition for the valves is to have nitrogen head pressure over the existing water in the line and it was felt the test configuration should be the same. The emergency situation is unavoidable because we have now concluded that testing with draining is required for compliance with the Table 4.4-1 requirement to test with nitrogen.

Evaluation of Safety Significance of the Change.

The proposed TS change has no affect on the safe operation of the plant. The containment isolation valves for which this TS change is requested are part of the Emergency Core Cooling System (ECCS), including sample lines from that system. Type C tests are Local Leak Rate Tests (LLRT's) of containment isolation valves. The subject containment isolation valves include the following:

1. AC-732 (RHR loop shutdown inlet line double disc isolation valve).

2. AC-MOV-744 (RHR loop outlet line double disc isolation valve)

3. SI-MOV-888A & SI-MOV-888B (low head to high head recirculation line double disc isolation valves)

4. AC-MOV-743 & AC-MOV-1870 (RHR mini-flow gate and globe, respectively, isolation valves with IVSWS to the line between them)

5. AC-AOV-958 (RHR sample containment globe isolation valve with IVSWS to the downstream line)

The last Type C leakage testing of these valves used nitrogen on top of water which is normally present within these piping lines and valves. The valves were not drained since they are filled with water after an accident (administrative controls assure the line after AC-AOV-958 would be filled following sampling by closing the downstream valve first). This TS change would not require Type C testing until startup from refuel outage 10 because the lines and valves are filled with water for thirty days after a postulated design basis accident and therefore do not constitute a potential containment atmospheric pathway.

Under the guidelines of Nuclear Energy Institute "Industry Guideline for Implementing Performance Based Option of 10 CFR Part 50, Appendix J," (NEI 94-01), Revision 0, dated July 26, 1995, no Type C test is required for "Primary containment boundaries that do not constitute

potential primary containment atmospheric pathways during and following a Design Basis Accident (DBA)." PORC approved the proposed change based on the valves being in systems that are normally filled with water, the systems are operable after the postulated design basis accident, and the systems would be filled with water after a postulated accident (for at least thirty days) with the most limiting single active failure. The application of IVSWS high pressure nitrogen gas may result in the addition of some gas to the area between discs on double disc valves or in the line between valves but this would not affect the system being filled with water. The seven containment isolation valves do not constitute a potential primary containment atmospheric pathway.

The NEI 94-01 guidelines have been incorporated into the Indian Point 3 TS 6.14, "Containment Leakage Rate Testing Program." TS 6.14 states that our program will be in accordance with the guidelines contained in Regulatory Guide (RG) 1.163. RG 1.163 states that NEI 94-01, Revision 0 provides methods acceptable for complying with Option B in Appendix J to 10 CFR 50.

It is concluded that there would be no effect on the public health and safety since the valves were tested in the configuration they would be in following a postulated DBA and the total leakage meets "La" acceptance criteria considering measured leakage of the seven valves.

Section III – No Significant Hazards Evaluation

The Authority has evaluated the proposed Technical Specification using the criteria of 10CFR50.92 and found that no significant hazards consideration exist for the following reasons:

1) Does the proposed License amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed License amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated. Testing does not affect the probability of an accident since leakage rates are not initiators of an accident. The proposed one time exclusion of seven containment isolation valves from Type C testing does not increase the consequences of an accident because it has been determined that the valves do not constitute a potential primary containment atmospheric pathway during and following a postulated DBA. The criteria in TS 6.14 that apply to our containment leakage rate testing program, specifically NEI-94-01, state that Type C testing is not required under these conditions. The valves are not a potential pathway because the valves are in systems that are normally filled with water, the systems are operable after the postulated design basis accident, and the systems would be filled with water after a postulated accident (for at least thirty days) with the most limiting single active failure. The application of IVSWS high pressure nitrogen gas may result in the addition of some gas to the area between discs on double disc valves or in the line between valves but this would not affect the system being filled with water.

2) Does the proposed License amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

   The proposed TS change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The leakage rate of containment isolation valves and the methodology to test or not test that leakage rate does not change

the operation of any system or component since it relates only to the potential for offsite leakage. Because system operation will remain the same and the containment isolation valves are not considered potential containment atmospheric pathways, the possibility of any new type of accident is not created.

3) Does the proposed License amendment involve a significant reduction in a margin of safety?

The proposed License amendment does not involve a significant reduction in a margin of safety. The testing of containment isolation valves is to ensure that containment leakage is maintained within bounds assumed in the accident analyses. The proposed change is based on an engineering evaluation which demonstrates that the valves are not a potential containment atmospheric pathway during and following an accident. Based on the criteria in TS 6.14, valves that are not a potential containment atmospheric pathway during and following an accident do not have to be Type C tested. Since this criteria is met, and the system operation is not being changed, there is no significant reduction in the margin of safety of the TS.

Section IV – Impact of Changes

The proposed TS changes will not adversely affect the ALARA program because the criteria in the TS for allowable leakage from containment isolation valves is not being changed. The Security and Fire Protection Programs will not be affected because there are no plant modifications and the testing activities are not of a type to affect plant security provisions or fire protection program features. The Emergency Plan is not affected since the testing does affect components or plant areas required for plan implementation and analysis provides assurance that release limits following a postulated accident remain within current criteria. Overall plant operations and the environment are not affected because the operation of the plant is not being changed, there are no plant discharges or wastes being generated from the elimination of the test. There are no effects on the conclusions of the FSAR or SER.

Section V - Conclusions

The incorporation of these changes:

a) will not involve a significant increase in the probability or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report;

b) will not create the possibility of a new or different kind of accident from any accident previously evaluated in the Safety Analysis Report;

c) will not significantly reduce the margin of safety as defined in the bases for any technical specification; and

d) involves no significant hazards considerations as defined in 10CFR50.92.