ATTACHMENT I TO IPN-99-078

SUPPLEMENT TO PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS 1.10, 3.6 & 4.4

REGARDING THE REMOVAL OF THE

CONTAINMENT ISOLATION VALVE TABLES

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

3.6 CONTAINMENT SYSTEM

Applicability

Applies to the integrity of reactor containment.

Objective

To define the operating status of the reactor containment for plant operation.

Specification

A. Containment Integrity

1. The containment integrity (as defined in 1.10) shall not be violated unless the reactor is in the cold shutdown condition. However, those non-automatic valves referred to in Specification 1.10.1, may be opened if necessary for plant operation and only as long as necessary to perform the intended function. Those non-automatic valves which are opened intermittently are under administrative controls.

2. The containment integrity shall not be violated when the reactor vessel head is removed unless the boron concentration is sufficient to maintain the shutdown margin equal to or greater than the requirements of specification 3.8.D.

3. If the containment integrity requirements are not met when the reactor is above cold shutdown, containment integrity shall be restored within one hour or the reactor shall be in the hot shutdown condition within six hours and in cold shutdown condition within the next 30 hours.

B. Internal Pressure

If the internal pressure exceeds 2.5 psig or the internal vacuum exceeds 2.0 psig, the condition shall be corrected or the reactor shutdown.

C. Containment Temperature

1. The reactor shall not be taken above the cold shutdown condition unless the containment ambient temperature is greater than 50° F.

2. Containment ambient temperature shall not exceed 130°F when the reactor is above the cold shutdown condition. If the temperature is greater than 130°F, reduce the temperature to within the limit within 8 hours, or be in hot shutdown within the next 6 hours and in cold shutdown within the following 30 hours.

Limiting maximum containment ambient temperature will ensure that the peak accident containment pressure does not exceed the design limit of 47 psig during steamline break or loss of coolant accidents. Environmentally and seismically qualified RTDs mounted on the crane wall above the containment fan cooler units inlet are normally used for measuring containment ambient temperature. Portable temperature sensing equipment may also be used, provided the criteria of 3.6.C.3 are met.

During periods of normal plant operations requiring containment integrity[4], some containment isolation valves, which include some locked or sealed closed valves, may be opened either continuously or intermittently depending on requirements of the particular protection, safeguards or essential service systems. Those valves which are opened intermittently are under administrative controls and are open only as long as necessary to perform their intended function. These administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated. An exception to this is containment isolation valve AC-732. Valve AC-732 is on the RHR Suction Line and is continuously open during RHR shutdown cooling from about 350 degrees F to below 200 degrees F in the RCS. If containment isolation is required valve AC-732 would be shut as part of the administrative controls to realign the RHR system for safety injection. A clarification is for non-automatic, remote manual containment isolation valves operated intermittently from the control room. The administrative controls for these valves consist of the normally stationed control room operator, since this operator is continually available to isolate the valve from the control room. In all cases, however, those containment isolation valves not required to be opened post accident are closed during the post accident period in accordance with plant procedures and consistent with requirements of the related protection, safeguards, or essential service systems. The exception to the application of these administrative controls are the 36 inch containment purge flow paths. Due to the size of these containment purge line penetrations and the fact that these penetrations exhaust directly from the containment atmosphere to the environment, the penetration flow path containing these purge valves may not be opened under administrative controls.

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The opening angle of the containment vent isolation valves is being limited as an analysis demonstrates valve operability against accident containment pressures provided the valves are limited to a maximum opening angle of 60°. The containment purge supply and exhaust isolation valves are required to be closed during plant operation above cold shutdown.

REFERENCES

(1) FSAR - Section 14.3.6
(2) FSAR - Appendix 5A, Section 3.1.8
(3) FSAR - Section 5.1.1.1
(4) FSAR - Section 5.2

ATTACHMENT II TO IPN-99-078

SAFETY EVALUATION OF THE

SUPPLEMENT TO PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS 1.10, 3.6 & 4.4

REGARDING THE REMOVAL OF THE

CONTAINMENT ISOLATION VALVE TABLES

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 Technical Specification proposes to:

1. Revise Specification 1.10.1 to remove the reference to Table 3.6-1which is in regards to non-automatic containment isolation valves (CIV) which are open continuously or intermittently for plant operations.
2. Revise Specification 3.6.A.1 to remove the reference to Table 3.6-1 and include mention of non-automatic valves opened intermittently being under administrative controls.
3. Revise Bases 3.6 to remove all references to Table 3.6-1 and to define administrative controls.
4. Delete Table 3.6-1, "Non-Automatic Containment Isolation Valves Open Continuously or Intermittently for Plant Operations."
5. Revise Specification 4.4.E to remove the reference to Table 4.4-1.
6. Delete Table 4.4-1, "Containment Isolation Valves."

Also included for information is page "vii" of table of contents, revised to reflect the deletion of Tables 3.6-1 and 4.4-1. The changes to this page also include a correction to the title for Table 3.4-1 for the spelling of "neutron". A bar is drawn in the right hand margin to indicate where text has changed, except for minor additional corrections.

Section II - Evaluation of Changes

Current Technical Specifications (TS) Tables 3.6-1 and 4.4-1 identify Non-Automatic Containment Isolation Valves (CIVs) open continuously or intermittently during plant operation when containment integrity is required and CIVs that are tested, respectively. These tables have been classified by the NRC as component listings which may be evaluated for relocation to a licensee controlled document, as per Generic Letter (GL) 91-08, "Removal of Component Lists from Technical Specifications" (Reference 1). Removing these lists from TS is a line item change.

GL 91-08 indicates that the removal of these component listings as a line-item improvement would prove beneficial to both the NRC and to licensees. NRC has deemed the removal of such lists as acceptable since it would not alter existing TS requirements or those components to which they apply. The removal of component lists from the TS would permit administrative control, subject to the provisions of 10 CFR 50.59, of subsequent changes to these lists without requiring the processing of a license amendment, as is required to update/revise TS component listings. This provides an adequate means of controlling future changes without retaining the component lists within the TS because 10 CFR 50.59 requires changes to be evaluated, which includes evaluating compliance with the TS.

GL 91-08 provides specific guidance for relocating tables regarding CIVs from the TS. An important part of this removal includes the references to these Tables made in the Limiting Conditions for Operation (LCO) and the corresponding Surveillance Requirement (SR) sections. With this TS change, the LCO (i.e. - §3.6.A.1), remedial actions, and surveillance requirements (i.e. - §4.4.E) will apply for all valves that are classified as CIVs by the plant licensing basis and not just those identified in a particular Table. Note, that the list of CIVs in the TS, Table 4.4-1, does not include all valves that are classified as containment isolation valves by the plant licensing basis.

The guidance of GL 91-08 for relocation of these CIV lists and how IP3 meets this guidance is explained as follows:

1. The TS should be revised to include an explicit description of those components for which the TS requirements apply. For CIVs, an alternative is to state "Each containment isolation valve shall be operable."

   The IP3 TS meets this requirement in the definition of TS 1.10 and the LCO of 3.6.A.

1. Although some components from these CIV lists may be listed in the Final Safety Analysis Report (FSAR), the FSAR should not be the sole means for identifying these components and associated criteria. A list of those components must be included in the plant procedures that are subject to the change control provisions for plant procedures in the Administrative Controls Section of the TS. The TS bases may reference the plant procedures where these lists are located. It would also be inappropriate for a TS LCO to reference the FSAR or any other document to specify those individual components to which the TS requirements apply.

   Indian Point 3 (IP3) lists both the non-automatic CIV's that are open continuously or intermittently for plant operation (Table 3.6-1) and the required CIV's in verifying the combined leakage rate for all containment bypass leakage paths (Table 4.4-1) in various locations which are subject to 10 CFR 50.59 change control provisions. This includes the FSAR, several plant valve check-off lists, selected surveillance test procedures, and various other system operating procedures. FSAR Table 5.2-3 includes the majority of the information of both Tables 3.6-1 and 4.4-1 and references various FSAR Chapter 5 Containment Isolation System schematics to illustrate the valve numbers and line penetration numbers. The test medium is discussed in both Table 5.2-3 as well as via TS 6.14 references, such as ANS 56.8-1994, "Containment Leakage Rate Testing Program" and implementing surveillance procedures.

3. Footnotes typically associated with such TS tables, which may modify the TS requirements for these valves, must be incorporated into the associated LCO so that they will remain in effect when the table containing these footnotes is removed from the TS. An example of this would be a footnote for valves that are exempt from the requirements of Specification 3.0.4, as denoted in the Standard Technical Specifications (STS) (Reference 2), which precludes entry into an operational mode or condition when an LCO would not be met without reliance on the provisions of the action requirements.

   For IP3 there are no associated footnotes for Table 3.6-1 and of the nine (9) footnotes found with Table 4.4-1 only Notes 8 and 9 meet the criteria presented in GL 91-08 for retention. The remaining seven are of a descriptive/informative nature only to provide a clarification. Disposition of notes 8 and 9 of Table 4.4-1 are discussed below.

Note 8 permits a relaxation: "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)." However, Specification 3.3.A.3.b was deleted with TS Amendment 139 which was intended to remove references to the Boron Injection Tank (BIT). This footnote should have been deleted along with the removal of other references to the BIT. Therefore, this removal of the CIV tables from the TS does not have to retain footnote 8 in the SR and footnote 8 does not have to be relocated.

Note 9, incorporated into the TS with Amendment 184 permits a relaxation of Type C testing, until startup from refuel outage 10, for seven CIVs that are located on lines that are expected to be filled with water for thirty days after a postulated design basis accident. This relaxation is a one-time allowance for valves that are normally required to be pneumatically tested per the Table. To preclude a shutdown, Amendment 184 was obtained in accordance with 10CFR 50.91(a)(5) which granted relief from further leakage rate testing of these seven CIVs until refueling outage 10 (currently scheduled to start September 1999). Since this footnote is a one-time allowance, it will not require retention. Following the removal of the Table, the CIVs will require testing, including testing during the upcoming refuel outage, in accordance with Appendix J and IP3's Appendix J testing program as per TS 6.14, "Containment Leakage Rate Testing Program" and the NRC Safety Evaluation (Amendment No. 184 to IP3 Operating License) that approved this note.

4. The TS bases should describe specifically those considerations that constitute acceptable administrative controls for opening locked or sealed closed containment isolation valves.

IP3 TS 3.6 bases presently discuss administrative controls being required for specific non-automatic CIVs being opened continuously or intermittently. These administrative controls were approved as part of the post Three Mile Island (TMI) review of containment isolation provisions and this review included the accessibility of valves for closure post LOCA. IP3 is revising the description of the administrative controls used during normal operations for CIVs that may be opened intermittently depending on requirements of the various systems. These revised administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous communication with the control room. This would provide for rapid isolation of the appropriate containment isolation penetration when a need for containment isolation is indicated. Further, this proposed TS bases discussion of administrative controls closely matches the Containment System TS bases section of the current, approved STS (Reference 2). The Containment System TS bases section of the IP3 Improved Technical Specifications (ITS) previously submitted will be revised as indicated in Attachment III to this letter (subject to change upon internal review). The proposed TS changes to 1.10.1, 3.6.A.1 and the 3.6 TS bases are aligned to indicate that administrative controls are to be employed for those non-automatic CIVs, including locked or sealed closed CIVs, that are closed for plant operation but may be opened intermittently when containment integrity is required. An exception to the specified administrative controls is the 14-inch manual double disc valve AC-732 on the RHR Suction Line from RCS Loop 32 Hot Leg. The administrative controls for AC-732 do not include stationing a dedicated operator at the controls of this valve in constant communications with the control room.

The current procedures (i.e., administrative controls) allow opening AC-732 for initiation of RHR shutdown cooling during a normal plant shutdown or provide for operation during post-LOCA cooldown and depressurization to Cold Shutdown, when RCS is less than 350 degrees F and 400 psig. These administrative controls consist of specific procedure operating guidance via appropriate Emergency Operating Procedures (EOPs), Plant Operating Procedures (POPs) and System Operating Procedures (SOPs). AC-732 is locked closed, except for short duration testing purposes, when RHR shutdown cooling system is not in service or being transitioned to emergency use. Because AC-732 is designed to be open continuously, and not intermittently, for shutdown cooling purposes, these designated procedural administrative controls, which manually realign the system, are sufficient to operate this CIV when RCS temperature is between 350 and 200 degrees F. Operation of this non-automatic CIV valve under the administrative constraints of these operating procedures ensures adequate means of control and is consistent with plant and system design. A clarification of the administrative controls applies to those non-automatic, remote manual containment isolation valves operated from the control room. The dedicated operator required by the administrative controls consists of the normally stationed control room operator. This operator will be continuously available in the control room to control valve position and thus meets the intent of the administrative controls.

Section III - No Significant Hazards Evaluation

In accordance with the requirements of 10CFR50.92, the enclosed application is judged to involve no significant hazards based upon the following information:

1. **Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?**

   Response: No. Operation of Indian Point 3 in accordance with the proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated. The removal of the two component listings (i.e., Tables 3.6-1 and 4.4-1) and the TS references to them from the TS requested by this submittal is performed in accordance with the guidance provided by the NRC in GL 91-08. As established by the NRC, in the aforementioned GL, such a change will not alter existing TS requirements or those components to which they apply. Required information contained in the two tables being removed is duplicated in the FSAR and other appropriate plant procedures. Any subsequent changes regarding the individual components (i.e., the containment isolation valves) or their operation (e.g., valve positioning under administrative controls) would be addressed in accordance with the requirements specified in the Administrative Controls section of the TS regarding changes to plant procedures and/or changes to the FSAR (i.e., 10CFR 50.59). These changes will not alter any structure, system, or component and, therefore, will not result in the possibility of an increase in probability or consequence of an accident previously evaluated.

2. **Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?**

   Response: No. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated. The deletion of two component listings (i.e., Tables 3.6-1 and 4.4-1) and the TS references to them from the Technical Specifications and the removal of all references made in the TS regarding these two listings will not alter how the individual components (i.e. – the containment isolation valves) identified in the tables are designed, operated, tested, or maintained. Testing of CIVs will be performed as required by 10 CFR 50, Appendix J and IP3 TS 6.14. In accordance with the guidance provided by GL 91-08, which specifically addresses the issues regarding the removal of containment isolation valve listings from the TS, the conditions, actions, and requirements of the TS will apply to those valves which are classified as containment isolation valves (CIVs) by the plant licensing basis. Required specifications/requirements of the tables, and associate footnotes, remain applicable and there are no changes to any parameter(s) used in prior accident analyses. Therefore, these changes to the TS will not create the possibility of a new or different kind of accident from any previously evaluated.

3. **Does the proposed amendment involve a significant reduction in a margin of safety?**

   Response: No. The proposed license amendment does not involve a significant reduction in a margin of safety. The proposed changes are in accordance with recommendations provided by NRC in Generic Letter 91-08, NUREG 1431, Standard Technical Specifications, and NUREG 0800, Standard Review Plan. These changes will maintain current safety margins while reducing the regulatory/administrative burdens to both the NRC and to the Power Authority. As stated, the changes will not result in changes to the design, operation, or maintenance of the CIVs, and the testing of the CIVs will be in accordance with 10 CFR 50 Appendix J and IP3 TS 6.14.

Section IV - **Impact of Changes**

These changes will not adversely impact the following:

1. ALARA Program
2. Security and Fire Protection Programs
3. Emergency Plan
4. FSAR or SER Conclusions
5. Overall Plant Operations and the Environment

Section V - **Conclusions**

The incorporation of these changes: a) will not significantly increase the probability nor 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 for an accident or malfunction of a different type than any evaluated previously 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.

Section VI - References

1. NRC Generic Letter 91-08, "Removal of Component Lists from Technical Specifications," dated May 6, 1991.

2. NRC NUREG-1431, "Standard Technical Specifications - Westinghouse Plants," Revision 1, dated April 1995.

3. NRC Letter, N.F. Conicella to R.E. Beedle (NYPA) regarding the "Issuance of Amendment for Indian Point Nuclear Generating Unit No. 3," Amendment 139, dated October 15, 1993.

4. NRC Letter, G.F. Wunder to J. Knubel (NYPA) regarding the "Issuance of Emergency Amendment for Indian Point Nuclear Generating Unit No. 3," Amendment 184, dated November 27, 1998.

5. Indian Point 3 Nuclear Power Plant Updated Final Safety Analysis Report, Revision 11, dated December 1997.

6. Indian Point 3 Technical Specification 6.14, "Containment Leakage Rate Testing Program."

7. ANS-56.8-1994, "Containment Leakage Rate Testing Program."

8. NYPA Letter to NRC (IPN-98-134), "Proposed Technical Specification Change (License Amendment) Conversion to Improved Standard Technical Specifications", dated December 11,1998.

ATTACHMENT III TO IPN-99-078

(For information only)

MARKUP OF SUBMITTED IMPROVED TECHNICAL SPECIFICATIONS (ITS) TO INCLUDE THE PROPOSED CHANGES TO TECHNICAL SPECIFICATION REGARDING THE REMOVAL OF THE CONTAINMENT ISOLAITON VALVE TABLES

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BASES

LCO (continued)

The valves covered by this LCO are listed in the FSAR (Ref. 2). The normally closed isolation valves are considered OPERABLE when manual valves are closed, automatic valves are de-activated and secured in their closed position, blind flanges are in place, and closed systems are intact (Ref. 3). AC-732, RHR suction line manual isolation valve is opened whenever the RHR shutdown cooling system is placed into service. This valve is considered operable in this condition because RHR system design allows opening of this valve on a continuous basis between 350°F and 200°F RCS temperature, under system administrative controls.

~~Manually operated containment isolation valves on essential lines that are required to be open, at least for a time, during post accident conditions are OPERABLE if they can be closed in accordance with design assumptions. Essential lines are those lines required to mitigate an accident, or which, if unavailable, could increase the magnitude of the event. Also, those lines which, if available, would be used in the short term (24 to 36 hours) to restore the plant to normal operation following an event which has resulted in containment isolation (Ref. 4).~~

This LCO provides assurance that the containment isolation valves and purge valves will perform their designed safety functions to minimize the loss of reactor coolant inventory and establish the containment boundary during accidents.

APPLICABILITY

In MODES 1, 2, 3, and 4, a DBA could cause a release of radioactive material to containment. In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Therefore, the containment isolation valves are not required to be OPERABLE in MODE 5. The requirements for containment isolation valves during MODE 6 are addressed in LCO 3.9.3, Containment Penetrations.

ACTIONS

The ACTIONS are modified by Note 1, which allows penetration flow paths, ~~that are isolated in accordance with Required Actions,~~ except for 36 inch purge valve penetration flow paths, to be unisolated intermittently under administrative controls. These administrative controls consist of stationing a dedicated operator at the valve controls, who is in continuous

BASES

ACTIONS (continued)

communication with the control room. In this way, the penetration can be rapidly isolated when a need for containment isolation is indicated. Due to the size of the containment purge line penetration and the fact that those penetrations exhaust from the containment atmosphere to the environment, the penetration flow path containing these valves may not be opened under administrative controls. Administrative controls for opening

For remote manual isolation valves operated from the control room, the normally stationed operators fulfill the dedicated operator requirement.

Note 2 has been added to provide clarification that, for this LCO, separate Condition entry is allowed for each penetration flow path. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable containment isolation valve. Complying with the Required Actions may allow for continued operation, and subsequent inoperable containment isolation valves are governed by subsequent Condition entry and application of associated Required Actions.

AC-732, manual RHR suction line isolation valve, consists of specific operating guidance for the RHR system (no dedicated operator is required).

The ACTIONS are further modified by Note 3, which ensures appropriate remedial actions are taken if the affected systems are rendered inoperable by an inoperable containment isolation valve.

In the event containment isolation valve leakage results in exceeding the overall containment leakage rate, Note 4 directs entry into the applicable Conditions and Required Actions of LCO 3.6.1.

The ACTIONS are further modified by Note 5, which ensures appropriate remedial actions are taken if required IVSW supply to a penetration flowpath is inoperable. Specifically, Note 5 directs entry into the applicable Conditions and Required Actions of LCO 3.6.9.

A.1 and A.2

In the event one containment isolation valve in one or more penetration flow paths is inoperable, the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be