Attachment I to IPN-87-046
Proposed Technical Specifications
Containment Isolation

New York Power Authority
Indian Point 3 Nuclear Power Plant
Docket No. 50-286

b. If the reactor is subcritical, the reactor coolant system temperature and pressure shall not be increased more than 25°F and 100 psi, respectively, over existing values.

c. In either case, if the IVSW System is not restored to an operable status within an additional 48 hours, the reactor shall be brought to the cold shutdown condition utilizing normal operating procedures. The shutdown shall start no later than the end of the 48 hours period.

D. Weld Channel and Penetration Pressurization System (WC & PPS)

1. The reactor shall not be brought above the cold shutdown unless the electrical and mechanical penetrations and liner weld channels are continuously pressurized above 42 psig.

2. The requirements of 3.3.D.1 may be modified to allow any one header of the nitrogen or air pressurization system to be inoperable for a period not to exceed 4 consecutive days.

3. If the WC & PP System is not restored to an operable status within the time period specified, then:

a. If the reactor is critical, it shall be brought to the hot shutdown condition utilizing normal operating procedures. The shutdown shall start no later than at the end of the specified time period.

b. If the reactor is subcritical, the reactor coolant system temperature and pressure shall not be increased more than 25°F and 100 psi, respectively, over existing values.

c. In either case, if the WC & PP System is not restored to an operable status within an additional 48 hours, the reactor shall be brought to the cold shutdown condition utilizing normal operating procedures. The shutdown shall start no later than the end of the 48 hour period.

The four day out of service period for the Weld Channel and Penetration Pressurization System and the Isolation Valve Seal Water System is allowed because no credit has been taken for operation of these systems in the calculation of off-site accident doses should an accident occur. No other safeguards systems are dependent on operation of these systems. [11] The minimum pressure settings for the IVSWS and WC & PPS during operation assures effective performance of these systems for the maximum containment calculated peak accident pressure of 41.2 psig. [12]

The Component Cooling System is not required during the injection phase of a loss-of-coolant accident. The component cooling pumps are located in the Primary Auxiliary Building and are accessible for repair after a loss-of-coolant accident. [6] During the recirculation phase following a loss-of-coolant accident, only one of the three component cooling pumps is required for minimum safeguards. [7]

A total of six service water pumps are installed, only two of the set of three service water pumps on the header designated the essential header are required immediately following a postulated loss-of-coolant accident. [8] During the recirculation phase of the accident, two service water pumps on the non-essential header will be manually started to supply cooling water for one component cooling system heat exchanger, one control room air conditioner, and one diesel generator; the other component cooling system heat exchanger, the other control room air conditioner, the two other diesel generators and remaining safety related equipment are cooled by the essential service water header. [14]

Two full rated recombination systems are provided in order to control the hydrogen evolved in the containment following a loss-of-coolant accident. Either system is capable of preventing the hydrogen concentration from exceeding 2% by volume within the containment. Each of the systems is separate from the other and is provided with redundant features. Power supplies for the blowers and ignitors are separate, so that loss of one power supply will not affect the remaining system. Hydrogren gas is used as the externally supplied fuel. Oxygen gas is added to the containment atmosphere through a separate containment feed to prevent depletion of oxygen in the air below the concentration required for stable operation of the combustor (12%). The containment atmosphere switches in the trip pull-out position, or by closing and locking (if manual) or de-energizing (if motor operated) at least one valve in the flow path from these pumps to the RCS. For conditions when the OPS is inoperable, additional restrictions are imposed on the RCS temperature, and pressurizer pressure and level. See Specifications 3.1.A.6.b.(3)

<u>References</u>

1) FSAR Section 9
2) FSAR Section 6.2
3) FSAR Section 6.2
4) FSAR Section 6.3
5) FSAR Section 14.3.5
6) FSAR Section 1.2
7) FSAR Section 8.2
8) FSAR Section 9.6.1
9) FSAR Section 14.3
10) FSAR Section 6.8
11) FSAR Section 6.5
12) Response to Question 14.6, FSAR Volume 7 as updated by <u>W</u> letter of 5/2/86
13) FSAR Appendix 14C
14) Response to Question 9.35, FSAR Volume 7

TABLE 3.6-1

NON-AUTOMATIC CONTAINMENT ISOLATION VALVES OPEN CONTINUOUSLY OR INTERMITTENTLY FOR PLANT OPERATION

AC-MOV-744	SI-MOV-850C	SWN-51-4
AC-MOV-1870	SI-1833A	SWN-44-5
AC-MOV-743	SI-1833B	SWN-51-5
SP-990C	SI-859A	SWN-71-1
AC-732	SI-859C	SWN-71-2
SI-MOV-885A	AC-752F	SWN-71-3
SI-MOV-885B	AC-753F	SWN-71-4
SI-MOV-888A	AC-752J	SWN-71-5
SI-MOV-888B	AC-753J	SA-24-1
CH-MOV-205	SWN-41-1	SA-24-2
CH-MOV-226	SWN-43-1	PS-PCV-1111-1
CH-227	SWN-41-2	PS-PCV-1111-2
CH-MOV-250A	SWN-43-2	UH-37
CH-MOV-441	SWN-41-3	UH-38
CH-MOV-250B	SWN-43-3	SP-MOV-990A
CH-MOV-442	SWN-41-4	SP-MOV-990B
CH-MOV-250C	SWN-43-4	SI-1814A
CH-MOV-443	SWN-41-5	SI-1814B
CH-MOV-250D	SWN-43-5	SI-1814C
CH-MOV-444	SWN-44-1	HR-MOV-1882A
SI-869A	SWN-51-1	HR-MOV-1875A
SI-869B	SWN-44-2	HR-MOV-1875B
SI-878A	SWN-51-2	HR-MOV-1876A
SI-878B	SWN-44-3	HR-MOV-1876B
SI-MOV-851A	SWN-51-3	PS-7
SI-MOV-850A	SWN-44-4	PS-8
		PS-9
		PS-10

Amendment No. 58

4.4 CONTAINMENT TESTS

Applicability

Applies to containment leakage.

Objective

To verify that potential leakage from the containment is maintained within acceptable values.

Specification

A. Integrated Leakage Rate

1. Test

a. A full pressure integrated leakage rate test shall be performed at intervals specified in A.3 at the peak accident pressure (P_a) of 41.2 psig minimum.

b. A test duration of 24 hours, or an NRC approved reduced duration methodology, as described in BN-TOP-1, Revision 1, shall be used. The test shall be extended a sufficient period of time to verify, by superimposing a known leak rate on the containment, the validity and accuracy of the leakage rate results.

c. A general inspection of the accessible interior and exterior surfaces of the containment structures and components shall be performed prior to performing an integrated leak test to uncover any evidence of structural deterioration which may affect either the containment structural integrity or leak tightness. If there is evidence of structural deterioration, integrated leakage rate tests shall not be performed until corrective action is taken. Such structural deterioration and corrective actions taken shall be reported as part of the test report.

d. Closure of the containment isolation valves for the purpose of the test shall be accomplished by the means provided for normal operation of the valves.

2. Acceptance Criteria

The measured leakage rate shall be less than 0.75 L_a where L_a is equal to 0.1 w/o per day of containment steam air atmosphere at 41.2 psig and 261^{o}F, which are the peak accident pressure and temperature conditions.

3. Frequency

A set of three leakage rate tests shall be performed (during plant shutdown), at approximately equal intervals during each 10-year service period. The third test of each set shall be conducted when the plant is shutdown for the 10-year plant inservice inspection.

B. Continuous Leak Detection Testing Via The Containment Weld Channel and Penetration Pressurization System

1. Acceptance Criteria

The upper limit for uncorrected air consumption for the pressurization system shall be 0.2% of the containment volume per day (sum of four headers) at the system operating pressure.

2. Corrective Action

a. If any time it is determined that the limit of B.1 is exceeded, repairs shall be initiated immediately.

b. If repairs are not completed and conformance to the acceptance criterion is not demonstrated within 7 days, the reactor shall be shut down until repairs are effected and the continuous leakage meets the acceptance criterion.

C. Sensitive Leakage Rate

1. Test

A sensitive leakage rate test shall be conducted with the containment penetrations, weld channels, and certain double gasketed seals and isolation valve interspaces at a minimum pressure of 42 psig and with the containment building at atmospheric pressure.

2. Acceptance Criteria

The test shall be considered satisfactory if the leak rate from the containment penetrations, weld channel and other pressurized zones is equal to or less than 0.2% of the containment free volume per day.

3. Frequency

A sensitive leakage rate test shall be performed at a frequency of at least every other refueling but in no case at intervals greater than 3 years.

D. <u>Air Lock Tests</u>

1. The containment air locks shall be tested at a minimum pressure of 41.2 psig and at a frequency of every 6-months. The acceptance criteria is included in E.2a. The equipment hatch is to be leak rate tested after every reinsertion prior to requiring containment integrity.

2. Whenever containment integrity is required, verification shall be made of proper repressurization to at least 42 psig of the double-gasket air lock door seal upon closing an air lock door.

Basis

The containment is designed for a pressure of 47 psig. (1) While the reactor is operating, the internal environment of the containment will be air at essentially atmospheric pressure and an average maximum temperature of approximately 130°F. With these initial conditions, the temperature of the steam-air mixture at the peak accident pressure of 41.2 psig is 261°F.

Prior to initial operation, the containment was strength-tested at 54 psig and was leak-tested. The acceptance criterion for this preoperational leakage rate test has been established as 0.075 w/o (.75 L_a) per 24 hours at 41.2 psig and 261°F, which are the peak accident pressure and temperature conditions. This leakage rate is consistent with the construction of the containment, (2) which is equipped with a Weld Channel and Penetration Pressurization System for continuously pressurizing both the penetrations and the channels over all containment liner welds. These channels were independently leak-tested during construction.

The safety analysis has been performed on the basis of a leakage rate of 0.10 W/o per day for 24 hours. With this leakage rate and with minmum containment engineered safeguards operating, the public exposure exposure would be well below 10 CFR 100 values in the event of the design basis accident. (3)

The performance of a periodic integrated leakage rate test during plant life provides a current assessment of potential leakage from the containment in case of an accident that would pressurize the interior of the containment. In order to provide a realistic appraisal of the integrity of the containment under accident conditions, the containment isolation valves are to be closed in the normal manner and without preliminary exercising or adjustments.

The minimum duration of 24 hours for the integrated leakage rate test is established to attain the desired level of accuracy and to allow for daily cyclic variation in temperature and thermal radiation. If an ILRT of a duration less than 24 hours is attempted, the criteria of the Bechtel Topical Report, BN-TOP-1, Revision 1, will be met.

The frequency of the periodic integrated leakage rate test is keyed to the schedule for major shutdowns for inservice inspection and refueling. The specified frequency of periodic integreated leakage rate testing is based on the following major considerations:

First is the low probability of leaks in the liner, because of

(a) the tests of the leak-tight integrity of the welds during erection;

(b) conformance of the complete containment to a low leakage rate limit at 41.2 psig or higher during pre-operational testing, and

(c) absence of any significant stresses in the liner during reactor operation.

Secondly, the Weld Channel and Penetration Pressurization System is in service continuously to monitor leakage from potential leak paths such as the containment personnel lock seals and weld channels, containment penetrations, containment liner weld channels, double-gasketed seals and spaces between certain containment isolation valves and personnel door locks. A leak would be expected to build up slowly and would, therefore, be noted before design limits are exceeded. Remedial action can be taken before the limit is reached.

During normal plant operation, containment personnel lock door seals are continuously pressurized after each closure by the Weld Channel and Penetration Pressurization Sytem. Whenever containment integrity is required, verification is made that seals repressurize properly upon closure of an air lock door.

These specifications have been developed using Appendix J (issue effective date March 16, 1973) of 10 CFR50 and ANSI N45.4-1972 "Leakage Rate Testing of Containment Structures for Nuclear Reactors" (March 16, 1972) for guidance.

The maximum permissible inleakage rate from the containment isolation valves sealed with service water for the full 12-month period of post accident recirculation without flooding the internal recirculation pumps is 0.36 gpm per fan cooler.

<u>REFERENCES</u>

(1) FSAR - Section 5
(2) FSAR - Section 5.1.7
(3) FSAR - Section 14.3.5
(4) FSAR - Volume 7, Response to Question 14.6 as updated by W letter of 5/2/86
(5) FSAR Section 6.6
(6) FSAR - Section 6.5

CONTAINMENT ISOLATION VALVES

Valve No.	Identifying Penetration Line Number (1)	Test Fluid (2)	Minimum Test Pressure (PSIG)
RC-AOV-549	1	Water (4)	45
RC-AOV-548	1	Water (4)	45
RC-518	2	Gas	42
RC-AOV-550	2	Gas	42
RC-AOV-552	3	Water (4)	45
RC-AOV-519	3	Water (4)	45
AC-741	4	Water (5)	45 (3)
AC-MOV-744	4	Nitrogen (4)	42 (3)
SI-MOV-888A	5	Nitrogen (4)	42
SI-MOV-888B	5	Nitrogen (4)	42
AC-AOV-958	5	Nitrogen (4)	42
SP-AOV-959	5	Nitrogen (4)	42
SP-990C	5	Nitrogen (4)	42
AC-MOV-1870	5	Nitrogen (4)	42
AC-MOV-743	5	Nitrogen (4)	42
AC-732	6	Nitrogen (4)	42 (3)
SI-MOV-885A	7	Water (5)	45
SI-MOV-885B	7	Water (5)	45
CH-AOV-201	8	Water (4)	45
CH-AOV-202	8	Water (4)	45
CH-MOV-205	9	Water (4)	45
CH-MOV-226	9	Water (4)	45
CH-227	9	Water (4)	45
CH-MOV-250A	10	Water (4)	45
CH-MOV-441	10	Water (4)	45
CH-MOV-250B	10	Water (4)	45
CH-MOV-442	10	Water (4)	45
CH-MOV-250C	10	Water (4)	45

TABLE 4.4-1 (Page 2 of 7)

CONTAINMENT ISOLATION VALVES

Valve No.	Identifying Penetration Line Number (1)	Test Fluid (2)	Minimum Test Pressure (PSIG)
CH-MOV-443	10	Water (4)	45
CH-MOV-250D	10	Water (4)	45
CH-MOV-444	10	Water (4)	45
CH-MOV-222	11	Water (4)	45
SP-AOV-956E	12	Water (4)	45
SP-AOV-956F	12	Water (4)	45
SI-869A	14	Water (4)	45
SI-867A	14	Gas	42
SI-878A	14	Gas	42
SI-869B	14	Water (4)	45
SI-867B	14	Gas	42
SI-878B	14	Gas	42
SI-MOV-1835A	15	Nitrogen (4)	42
SI-MOV-1835B	15	Nitrogen (4)	42
SI-1833A	15	Water (4)	45
SI-1833B	15	Water (4)	45
SI-MOV-851A	15	Water (4)	45
SI-MOV-850A	15	Water (4)	45
SI-MOV-850C	15	Water (4)	45
SI-859A	16	Water (4)	45
SI-859C	16	Water (4)	45
NNE-1610	17	Gas	42
NNE-AOV-863	17	Gas	42
SP-AOV-956G	18	Water (4)	45
SP-AOV-956H	18	Water (4)	45
WD-AOV-1786	19	Water (4)	45
WD-AOV-1787	19	Water (4)	45

CONTAINMENT ISOLATION VALVES

Valve No.	Identifying Penetration Line Number (1)	Test Fluid (2)	Minimum Test Pressure (PSIG)
WD-AOV-1610	19	Gas	42
WD-1616	19	Gas	42
WD-AOV-1788	20	Water (4)	45
WD-AOV-1789	20	Water (4)	45
WD-AOV-1702	21	Water (4)	45
WD-AOV-1705	21	Water (4)	45
AC-MOV- 797	22	Water (4)	45
AC-MOV- 769	22	Water (4)	45
AC-MOV- 784	23	Water (4)	45
AC-MOV- 786	23	Water (4)	45
AC-FCV- 625	24	Water (4)	45
AC-MOV- 789	24	Water (4)	45
AC-AOV- 791	29	Water (4)	45
AC-AOV- 798	29	Water (4)	45
AC-AOV- 796	30	Water (4)	45
AC-AOV- 793	30	Water (4)	45
WD-AOV-1728	31	Water (4)	45
WD-AOV-1723	31	Water (4)	45
VS-PCV-1234	32	Gas (7)	42
VS-PCV-1235	32	Gas (7)	42
VS-PCV-1236	33	Gas (7)	42
VS-PCV-1237	33	Gas (7)	42
CA-PCV-1229	34	Gas (7)	42
CA-PCV-1230	34	Gas (7)	42
BD-PCV-1215	37	Water (4)	45
BD-PCV-1215A	37	Water (4)	45
BD-PCV-1214	37	Water (4)	45
BD-PCV-1214A	37	Water (4)	45
BD-PCV-1216	37	Water (4)	45
BD PCV-1216A	37	Water (4)	45
BD-PCV-1217	37	Water (4)	45
BD-PCV-1217A	37	Water (4)	45

CONTAINMENT ISOLATION VALVES

Valve No.	Identifying Penetration Line Number (1)	Test Fluid (2)	Minimum Test Pressure (PSIG)
BD-PCV-1224	38	Water (4)	45
BD-PCV-1224A	38	Water (4)	45
BD-PCV-1223	38	Water (4)	45
BD-PCV-1223A	38	Water (4)	45
BD-PCV-1225	38	Water (4)	45
BD-PCV-1225A	38	Water (4)	45
BD-PCV-1226	38	Water (4)	45
BD-PCV-1226A	38	Water (4)	45
SWN-41-1	39	Water (6)	45
SWN-43-1	39	Water (6)	45
SWN-42-1	39	Water (6)	45
SWN-41-2	39	Water (6)	45
SWN-43-2	39	Water (6)	45
SWN-42-2	39	Water (6)	45
SWN-41-3	39	Water (6)	45
SWN-43-3	39	Water (6)	45
SWN-42-3	39	Water (6)	45
SWN-41-4	39	Water (6)	45
SWN-43-4	39	Water (6)	45
SWN-42-4	39	Water (6)	45
SWN-41-5	39	Water (6)	45
SWN-43-5	39	Water (6)	45
SWN-42-5	39	Water (6)	45
SWN-44-1	40	Water (6)	45
SWN-51-1	40	Water (6)	45
SWN-44-2	40	Water (6)	45
SWN-51-2	40	Water (6)	45
SWN-44-3	40	Water (6)	45
SWN-51-3	40	Water (6)	45
SWN-44-4	40	Water (6)	45
SWN-51-4	40	Water (6)	45

CONTAINMENT ISOLATION VALVES

Valve No.	Identifying Penetration Line Number (1)	Test Fluid (2)	Minimum Test Pressure (PSIG)
SWN-44-5	40	Water (6)	45
SWN-51-5	40	Water (6)	45
SWN-71-1	40a	Water (6)	45
SWN-71-2	40a	Water (6)	45
SWN-71-3	40a	Water (6)	45
SWN-71-4	40a	Water (6)	45
SWN-71-5	40a	Water (6)	45
SA-24-1	41	Water (4)	45
SA-24-2	41	Water (4)	45
UH-37	45	Water (4)	45
UH-38	46	Water (4)	45
VS-FCV-1170	48	Gas (7)	42
VS-FCV-1171	48	Gas (7)	42
VS-FCV-1172	49	Gas (7)	42
VS-FCV-1173	49	Gas (7)	42
VS-PCV-1190	50	Gas (7)	42
VS-PCV-1191	50	Gas (7)	42
VS-PCV-1192	50	Gas (7)	42
SP-MOV-990A	51	Nitrogen (4)	42
SP-MOV-990B	51	Nitrogen (4)	42
SP-AOV-956A	52	Water (4)	45
SP-AOV-956B	52	Water (4)	45
SP-AOV-956C	53	Water (4)	45
SP-AOV-956D	53	Water (4)	45
SI-1814A	54	Gas	42
SI-1814B	55	Gas	42
SI-1814C	56	Gas	42
SP-SOV-506	57	Gas (7)	42
SP-SOV-507	57	Gas (7)	42
SP-SOV-508	57	Gas (7)	42
SP-SOV-509	57	Gas (7)	42

CONTAINMENT ISOLATION VALVES

Valve No.	Identifying Penetration Line Number (1)	Test Fluid (2)	Minimum Test Pressure (PSIG)
SP-SOV-510	57	Gas (7)	42
SP-SOV-511	57	Gas (7)	42
SP-SOV-512	57	Gas (7)	42
SP-SOV-513	57	Gas (7)	42
SP-SOV-514	57	Gas (7)	42
SP-SOV-515	57	Gas (7)	42
SP-SOV-516	57	Gas (7)	42
HR-MOV-1882A	58	Gas	42
HR-IV-2A	58	Gas	42
HR-IV-2B	58	Gas	42
HR-MOV-1875A	59	Gas	42
HR-IV-3A	59	Gas	42
HR-MOV-1876A	60	Gas	42
HR-IV-5A	60	Gas	42
HR-MOV-1875B	61	Gas	42
HR-IV-3B	61	Gas	42
HR-MOV-1876B	62	Gas	42
HR-IV-5B	62	Gas	42
IA-39	64	Gas	42
IA-PCV-1228	64	Gas	42
PS-7	65	Gas (7)	42
PS-10	65	Gas (7)	42
PS-8	65	Gas (7)	42
PS-9	65	Gas (7)	42
CB-1	69	Gas	42
CB-2	69	Gas	42
CB-3	69	Gas (7)	42
CB-4	69	Gas (7)	42
DW-AOV-1	70	Water (4)	45
DW-AOV-2	70	Water (4)	45

TABLE 4.4-1 (Page 7 of 7)
CONTAINMENT ISOLATION VALVES

NOTES:

1. Penetration no. corresponds to the note no. on FSAR Table 5.2-3

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.

Attachment II to IPN-87-046
Safety Evaluation of Proposed
Technical Specifications
Related To Containment
Isolation Valves

New York Power Authority
Indian Point 3 Nuclear Power Plant
Docket No. 50-286
DPR-64

Safety Evaluation of Proposed Technical Specifications Related To Containment Isolation Valves

I. Description of Change

This application seeks to amend Tables 3.6-1 and 4.4-1 of Appendix A to the Operating License to reflect modifications to certain containment isolation valves.

Table 3.6-1 has been revised to reflect the:

- o addition of containment isolation valves CH-MOV-441 thru 444
- o deletion of valves 1890 A thru H, J
- o deletion of valves 241 A thru D
- o deletion of valves 580 A, B

Table 4.4-1 has been revised to reflect the:

- o addition of containment isolation valves SP-SOV-506 thru 516
- o addition of containment isolation valves CH-MOV-441 thru 444
- o deletion of valves 1890 A thru H, J
- o deletion of valves 241 A thru D
- o deletion of valves 580 A, B

Additionally, the appropriate valve identification prefix and suffix have been added to those valves listed in Tables 3.6-1 and 4.4-1.

Sections 3.3 and 4.4 have been revised to reflect an increase in the calculated peak containment LOCA pressure. This increased calculated pressure has necessitated a revision to the minimum pressure at which the leakage rate tests are performed.

II. Evaluation of Change

Containment isolation valves CH-MOV-441 thru 444 were installed in the four reactor coolant pump seal water supply lines between the existing two containment isolation valves. This modification obviated the containment isolation function of the upstream valves, 241 A thru D.

The manual containment isolation valves, 1890 A thru H, J, for the post accident hydrogen sampling system, were replaced with solenoid operated valves, SP-SOV-506 thru 516.

It should be noted that valves CH-MOV-441 thru 444 and SP-SOV-506 thru 516 were treated as automatic containment isolation valves subject to appropriate Technical Specification requirements as of the date of their installation.

Containment isolation valves 580 A, B were removed from the pressurizer deadweight transmitter line. The line was capped and is no longer in use.

The appropriate valve identification prefix and suffix have been added to the listed valves. The valve identification prefix identifies the valve operator and the system in which the valve is located. The valve suffix distinguishes those valves which otherwise would have the same valve identification.

As indicated in Table 4.4-1, the minimum leak-rate test pressure for those valves utilizing a gas test fluid has been increased from 41 psig to 42 psig. This increase in minimum test pressure reflects the increased calculated peak containment LOCA pressure of 41.2 psig. The increased calculated peak containment LOCA pressure resulted from increasing the assumed ambient containment temperature from 120^{o}F to 130^{o}F. (Reference a).

The technical specifications for the leakage rate tests provided in Section 4.4 and the associated Basis have been revised to reflect an increase in the calculated peak containment LOCA Pressure. This increased calculated pressure has necessitated a revision to the minimum pressure at which the leakage rate test are performed.

The technical specifications for the weld channel and penetration pressurization system (WCPPS) provided in Section 4.4 and the associated Basis have been revised to reflect an increase in the calculated peak containment LOCA pressure. This increased calculated pressure has necessitated a revision to the minimum pressurization of the WCPPS.

III. No Significant Hazards Evaluation

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

Response

The proposed amendment, in part, reflects the installation and removal of certain containment isolation valves. The completion of the modifications did not change any of the design bases for the plant. The addition of the appropriate valve identification prefix and suffix to the listed valves is a purely administrative change.

The proposed amendment, in part, revises the minimum leak-rate test pressure to reflect an increase in the calculated peak containment accident pressure. The increased calculated pressure of 41.2 psig is attributable to an increased containment ambient temperature of 130°F. The minimum test pressure, as provided in Table 4.4-1, has been increased from 41 psig to 42 psig. Section 4.4 has been revised to require that the leak rate tests be performed at a minimum pressure of 41.2, the peak accident pressure. However, per procedure, the leak-rate tests have been performed at 50 psig. Therefore, the revision to Table 4.4-1 will not change the manner in which the leak-rate tests are performed.

This proposed amendment, in part, revises the minimum pressurization of the weld channel and penetration pressurization system (WCPPS) to reflect an increase in the calculated peak containment accident pressure. Section 3.3 has been revised to require that the WCPPS be continuously pressurized above 42 psig before bringing the reactor above the cold shutdown condition. The WCPPS is supplied with a regulated supply of 100 psig compressed air from the instrument air system. Therefore, the revisions to Section 3.4 will not change the operation of the WCPPS.

As such, the proposed amendment does not increase the probability or consequences of any accident.

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

Response

The proposed amendment, in part, reflects the installation and removal of certain containment isolation valves. The completion of the modifications did not violate any design criteria for the containment isolation system. The proposed amendment reflects the containment isolation system as described in the FSAR. The addition of the appropriate prefix and suffix to the listed valves is a purely administratative change.

The proposed amendment, in part, revises the minimum leak-rate test pressure to reflect an increase in the calculated peak containment accident pressure. The increased calculated pressure of 41.2 psig is attributable to an increased containment ambient temperature of 130°F. The minimum test pressure, as provided in Table 4.4-1, has been increased from 41 psig to 42 psig. Section 4.4 has been revised to require that the leak rate tests be performed at a minimum pressure of 41.2, the peak accident pressure. However, per procedure, the leak-rate tests have been performed at 50 psig. Therefore, the revision to Table 4.4-1 will not change the manner in which the leak-rate tests are performed.

This proposed amendment, in part, revises the minimum pressurization of the weld channel and penetration pressurization system (WCPPS) to reflect an increase in the calculated peak containment accident pressure. Section 3.3 has been revised to require that the WCPPS be continuously pressurized above 42 psig before bringing the reactor above the cold shutdown condition. The WCPPS is supplied with a regulated supply of 100 psig compressed air from the instrument air system. Therefore, the revisions to Section 3.4 will not change the operation of the WCPPS.

This proposed amendment will not create a new or different kind of accident from any accident previously evaluated.

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

Response

The proposed amendment, in part, reflects the installation and removal of certain containment isolation valves. The containment isolation criteria of at least two barriers for redundancy against leakage of radioactive fluids to the environment in the event of a Loss of Coolant Accident was not violated by the completion of the modifications. The addition of the appropriate prefix and suffix to the listed valves is a purely administrative change.

The proposed amendment, in part, revises the minimum leak-rate test pressure to reflect an increase in the calculated peak containment accident pressure. The increased calculated pressure of 41.2 psig is attributable to an increased containment ambient temperature of 130°F. The minimum test pressure, as provided in Table 4.4-1, has been increased from 41 psig to 42 psig. Section 4.4 has been revised to require that the leak rate tests be performed at a minimum pressure of 41.2, the peak accident pressure. However, per procedure, the leak-rate tests have been performed at 50 psig. Therefore, the revision to Table 4.4-1 will not change the manner in which the leak-rate tests are performed.

This proposed amendment, in part, revises the minimum pressurization of the weld channel and penetration pressurization system (WCPPS) to reflect an increase in the calculated peak containment accident pressure. Section 3.3 has been revised to require that the WCPPS be continuously pressurized above 42 psig before bringing the reactor above the cold shutdown condition. The WCPPS is supplied with a regulated supply of 100 psig conmpressed air from the instrument air system. Therefore, the revisions to Section 3.4 will not change the operation of the WCPPS.

The proposed amendment does not involve a significant reduction in a margin of safety.

IV. IMPACT OF CHANGE

This change will not impact the following:
- ALARA Program
- Fire Protection Program
- Emergency Plant
- FSAR or SER Conclusions
- Overall Plant Operations

V. CONCLUSION

This change: a) will not 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 increase the possibility for an accident or malfunction of a different type than evaluated previously in the Safety Analysis Report; c) will not reduce the margin of safety as defined in the basis for any Technical Specification; d) does not constitute an unreviewed safety question as defined in 10 CFR 50.59; e) involves no significant hazards considerations as defined in 10 CFR 50.92.

VI. REFERENCES

a) Letter from Mr. J. C. Brons to NRC, dated March 6, 1987 (IPN-87-013), entitled: "Proposed changes to the Technical Specifications Related to Containment Temperature."

b) IP-3 FSAR

c) IP-3 SER