

ATTACHMENT I TO IPN-96-026
PROPOSED TECHNICAL SPECIFICATION CHANGE
REGARDING PRESSURIZER SAFETY VALVE
SETPOINT AND SNUBBER
FUNCTIONAL TESTING

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

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TABLE 4.1-3 (Sheet 1 of 2)

FREQUENCIES FOR EQUIPMENT TESTS		
	<u>Check</u>	<u>Frequency</u>
1. Control Rods	Rod drop times of all control rods	24M
2. Control Rods	Movement of at least 10 steps in any one direction of all control rods	Every 31 days during reactor critical operations
3. Pressurizer Safety Valves	Set Point	24M*
4. Main Steam Safety Valves	Set Point	24M
5. Containment Isolation System	Automatic actuation	24M
6. Refueling System Interlocks	Functioning	Each refueling, prior to movement of core components
7. Primary System Leakage	Evaluate	5 days/week
8. Diesel Generators Nos. 31, 32 & 33 Fuel Supply	Fuel Inventory	Weekly
9. Turbine Steam Stop Control Valves	Closure	Yearly
10. L.P. Steam Dump System (6 lines)	Closure	Monthly
11. Service Water System	Each pump starts and operates for 15 minutes (unless already operating)	Monthly
12. City Water Connections to Charging Pumps and Boric Acid Piping	Temporary connections available and valves operable	24M

*Pressurizer Safety Valve setpoint test due no later than May 1996 may be deferred until the next refueling outage but no later than May 31, 1997.

Amendment No. 10, 14, 43, 63, 93, 99, 123, 126, 127, 129, 133, 144,

2. Visual inspection shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, and (2) attachments to the foundations or supporting structure are secure. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that (1) the cause of the rejection is clearly established and remedied for the particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specification 4.11.B.5. However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be declared inoperable via functional testing for the purpose of establishing the next visual inspection period. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.

B. Functional Testing

1. At least once per 24 months* during plant shutdown, a representative sample of 10% of all the safety-related hydraulic snubbers shall be functionally tested for operability, either in place or on a bench test. For each snubber that does not meet the requirement of 4.11.B.5, an additional 10% of the total installed of that type of hydraulic snubber shall be functionally tested. This additional testing will continue until no failures are found or until all snubbers of the same type have been functionally tested. The representative sample shall include each size and type of snubber in use in the plant.
2. The representative sample selected for functional testing should include the various configurations, operating environments, sizes and capacities of snubbers. At least 25% or the maximum possible if less than 25%, of the snubbers in the representative sample should include snubbers from the following three categories:
 - a. The first snubber away from each reactor vessel nozzle.

* Snubber functional testing due no later than May 1996 may be deferred until the next refueling outage but no later than May 31, 1997.

ATTACHMENT II TO IPN-96- 026
SAFETY EVALUATION FOR THE
PROPOSED TECHNICAL SPECIFICATION CHANGE
REGARDING PRESSURIZER SAFETY VALVE
SETPOINT AND SNUBBER FUNCTIONAL TESTING

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

SAFETY EVALUATION OF PROPOSED TECHNICAL SPECIFICATION CHANGES
ASSOCIATED WITH PRESSURIZER SAFETY VALVE SETPOINT AND SNUBBER
FUNCTIONAL TESTING

Section I - Description of Changes

This application for amendment to the Indian Point 3 (IP3) Technical Specifications proposes to revise Sections 4.1 and 4.11 of Appendix A of the Operating License. The proposed changes would allow a one-time extension of the test intervals for the pressurizer safety valve (PSV) setpoint and snubber functional testing due in May 1996. These tests will be performed during the next refueling outage (RO 9) but no later than May 31, 1997. Though subject to change, RO 9 is currently scheduled to start in February 1997. Without this one-time extension, a forced outage will be necessary to perform the required testing. The forced outage will increase the probability of events which are more likely to occur during transient operation (heatup and cooldown) than at full power steady state operation and subject plant equipment to further heatup/cooldown cycles resulting in unnecessary equipment wear. The proposed change would revise the Technical Specifications Table 4.1-3, Sheet 1 of 2 and Section 4.11.B, page 4.11-3 to include a footnote. The footnote would indicate that the testing due May 1996 will be deferred until the next refueling outage but no later than May 31, 1997.

Section II - Evaluation of Changes

In accordance with Technical Specifications Table 4.1-3, Sheet 1 of 2, item 3 and Section 4.11.B, page 4.11-3, PSV setpoint testing and functional testing of a 10% representative sample of safety related hydraulic snubbers, shall be conducted once every 24 months. Based on a 30 month inspection interval, which includes a 25% extension allowance for surveillance interval per Technical Specification 1.12, the next tests for the PSVs and snubbers would have to be conducted by May 1996. This application for amendment proposes a one-time change to the Technical Specifications that would allow the PSV setpoint and snubber functional tests to be conducted during the next refueling outage but no later than May 31, 1997. The request for a one-time extension to the test intervals is based on the following technical justification.

Pressurizer Safety Valves Setpoint Testing

The PSVs protect the reactor coolant pressure boundary during abnormal operating pressure and temperature conditions in accordance with the design criteria of the ASME Boiler and Pressure Vessel Code Section III. The setpoint test, as required by IP3 Technical Specifications, is normally performed on all three PSVs during a refueling outage. IP3 Technical Specification Table 4.1-3, item 3 requires setpoint testing every 24 months, and the lift setting acceptance criterion is given in Technical Specification Section 3.1.A.2 as 2485 psig $\pm 1\%$ allowance for error. The valves are tested at Wyle laboratories. Valve adjustments for

set pressure and/or seat tightness, if necessary, are performed and the valves are then returned to IP3 for re-installation.

IP3 is committed to perform inservice testing to ASME Section XI, 1983 Edition, Summer 1983 Addenda. However, the later edition of ASME Section XI, (1989 Edition) references ANSI/ASME OM-1-1987. ANSI/ASME OM-1-1987 requires that PWR PSVs be tested for setpoint at least once during initial operation and then during subsequent 5 year periods. At IP3, setpoint testing exceeds code requirements and is performed on a 24 month frequency. ANSI/ASME OM-1-1987 also requires a $\pm 3\%$ as-found set pressure acceptance criterion. IP3 Technical Specifications require a $\pm 1\%$ allowance, which is based on ASME Section III design requirements.

A review of the past four outage set pressure test results was conducted for the PSVs. During those tests, there were 69 set pressure "pops" of the three PSVs (25 for PCV-464, 23 for PCV-466 and 21 for PCV-468). Of these, 46 were within $\pm 1\%$ of the 2485 psig setpoint. Furthermore, only two test results exceeded the $\pm 3\%$ OM-1-1987 allowance (PCV-466 was 3.30% below the 2485 psig setpoint [2403 psig] during testing in May 1992, and PCV-468 was 3.10% above the setpoint [2562 psig] during testing in May 1992). A value exceeding the $\pm 3\%$ criteria is not considered representative of normal valve performance. These results were analyzed for time dependency and the failures were not deemed to be surveillance test periodicity related. Also, neither PSV lift setting approached the Reactor Coolant System Technical Specification Safety Limit of 2735 psig (110% of design pressure). The Authority compiled the 69 test results and plotted their drift from the previous set pressure test. The results of this analysis indicate that there is no evidence PSV setpoint drift at IP3 is time-dependent. Present performance of the PSVs has been satisfactory. The PSVs have only experienced normal system pressure for approximately 4 months since they were last tested in November 1993. The PSVs are monitored for leakage and as of this time, the valves are not leaking.

Snubber Functional Testing

Snubbers are required to prevent unrestrained pipe motion under dynamic loads as might occur during an earthquake or severe transient, while allowing normal thermal motion. To ensure that snubbers properly perform their function, they are subjected to periodic functional and visual inspections. IP3 Technical Specification Section 4.11.B requires a functional test of 10% representative sample of all safety-related hydraulic snubbers at least once per 24 months during periods of plant shutdown. Failure of any snubber requires an additional 10% of the total installed, of that type, to be functionally tested.

The last six snubber functional tests were reviewed to determine past performance of the snubbers. During the six tests, 136 snubbers were functionally tested. This review showed only one failure (reported via Licensee Event Report 92-014) where snubber MSR-1-2-H activated (restrained motion) prematurely in 1992. An inspection of the components associated with the failed snubber revealed no evidence of damage. The cause was found to be improper lubrication, because silicon grease was inappropriately injected into the

accessible grease fittings during general lubrication rounds prior to mid-1986. A lubrication control program was developed in mid-1986 to provide better control for lubrication. All snubbers, potentially subject to similar inappropriate lubrication, were inspected after the 1992 snubber failure to ensure operability.

The functional test results review showed that there were no snubber failures at IP3 that would indicate age-related snubber degradation. Snubber service life maintenance and replacement activities at IP3 provide high confidence in snubber operability. The nominal service life of the installed safety-related snubbers is 15 years. Therefore, the one-time extension of snubber testing beyond 30 months will not affect the snubbers since the remaining snubber service life is much greater than 30 months. Implicit in this determination is the knowledge that the actual service life of the snubber is dependent on environmental conditions. The 15 year service life (from certification) can actually be exceeded if mild environmental conditions (e.g, low temperature and low humidity) are present. The determination of snubber service life is accomplished by taking these factors into account on a case by case basis. The service life monitoring required by IP3 Technical Specifications ensures that a snubber that would exceed its useful life prior to the next scheduled snubber service life review shall be reevaluated or the snubber shall be replaced or reconditioned so as to extend its service life beyond the next scheduled service life review. A review of the service life records was conducted to determine if, during the proposed extension period, the service life for any snubber would expire. This review indicated that no snubbers will exceed their service life during the testing interval with the proposed one-time extension. Further ensuring snubber operability, 100% of the snubbers undergo a visual inspection as required by IP3 Technical Specifications. The last inspection performed in 1992 for 172 snubbers verified that no visible damage or impaired operability existed and that all snubbers were securely attached to their foundations.

Section III - No Significant Hazards Evaluation

Consistent with the criteria of 10 CFR 50.92, the enclosed application is judged to involve no significant hazards based on the following information for the PSVs and Snubbers:

A. Pressurizer Safety Valves:

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

Response:

The proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated. As discussed in Section II, "Evaluation of Changes," based on the analysis of the test results for the past four outages, there is a high level of confidence that PSV setpoint drift at IP3 is not time dependent. Past test results also indicate that out of 69 set pressure "pops", 46 were within $\pm 1\%$ of the 2485 psig setpoint and only two test results exceeded $\pm 3\%$

allowance. These test results indicate a high degree of reliability for the PSVs. Therefore, a one-time extension of the test interval for the PSVs till the next refueling outage but no later than May 31, 1997 is not expected to adversely affect the functioning of the PSVs and will not involve a significant increase in the probability or consequences 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:

The proposed license amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change does not involve the addition of any new or different type of equipment, nor does it involve operating equipment required for safe operation of the facility in a manner different than addressed in the Final Safety Analysis Report. Also, as stated, the increased surveillance interval (one-time only) is not expected to adversely affect the functioning of the PSVs and will not result in any new failure modes. Therefore, the proposed change will not create the possibility of 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 license amendment does not involve a significant reduction in a margin of safety. The proposed change, for one-time extension of the test interval, for the PSVs does not adversely affect the performance of any safety related system, component or instrument or safety system setpoints and does not result in increased severity of any of the accidents considered in the safety analysis. Based on past test results, the one-time extension for the PSV testing should not adversely affect the lift settings or the relieving capacities of the valves, and the safety limit of 2735 psig (110% of design pressure) as described in Section 2.2 of the Technical Specifications will be protected. Therefore, this change does not create a significant reduction in a margin of safety.

B. Snubbers:

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

Response:

The proposed license amendment does not involve a significant increase in the

probability or consequences of an accident previously evaluated. An inoperable snubber could cause an increase in probability of structural damage to piping in the event of thermal or dynamic loads. As discussed in Section II, "Evaluation of Changes," based on the last six snubber functional tests, 136 snubbers were functionally tested and only 1 snubber failure was noted. Thus, past snubber functional test results indicate a high degree of reliability for the snubbers. Furthermore, past test results also indicate a high level of confidence that snubber failure at IP3 is not time dependent. Therefore, a one-time extension of the functional test interval for the snubbers till the next refueling outage but no later than May 31, 1997 will not significantly increase the probability of snubber inoperability and will not involve a significant increase in the probability or consequences 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:

The proposed license amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change does not involve the addition of any new or different type of equipment, nor does it involve the operation of equipment required for safe operation of the facility in a manner different from those addressed in the Final Safety Analysis Report. Also, as stated, the proposed one-time interval extension is not expected to adversely affect the functioning of the snubbers and will not result in any new failure modes. Therefore, the proposed change will not create the possibility of 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 license amendment does not involve a significant reduction in a margin of safety. The proposed change, for one-time extension of the test interval, for the snubber functional testing does not adversely affect the performance of any safety related system, component or instrument or safety system setpoints and does not result in increased severity of any of the accidents considered in the safety analysis. Also, snubber visual inspection frequency is based on maintaining a constant level of snubber protection to systems, and the visual inspection frequency will remain the same. Therefore, this one-time functional testing extension has no adverse effect on any margin of safety and, therefore, does not create a significant reduction in a margin of safety.

Section IV - Impact of Change

This change will not adversely affect the following:

ALARA Program
Security and Fire Protection Programs
Emergency Plan
FSAR or SER Conclusions
Overall Plant Operations and the Environment

Section V - Conclusions

The incorporation of this change: 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 of an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report; c) will not reduce the margin of safety as defined in the bases for any technical specification; and d) involves no significant hazards considerations as defined in 10 CFR 50.92.

Section VI - References

- 1) IP3 FSAR
- 2) IP3 SER