

ATTACHMENT A
NIAGARA MOHAWK POWER CORPORATION
LICENSE NO. NPF-69
DOCKET NO. 50-410

Proposed Changes to the Technical Specifications

Replace existing pages xii, 3/4 7-16, 17, 18, 19, and 20 with the attached revised pages. These pages have marginal markings to indicate the changes to the text. Insert new pages 3/4 7-20a and 20b.

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3.7.5 All snubbers shall be OPERABLE. The only snubbers excluded from the requirements are those installed on non-safety-related systems and then only if their failure or failure of the system on which they are installed would have no adverse effect on any safety-related system.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, and 3 and OPERATIONAL CONDITIONS 4 and 5 for snubbers located on systems required OPERABLE in those OPERATIONAL CONDITIONS.

ACTION: With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.5 on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.5 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

a. Snubber Types

As used in this specification, type of snubber shall mean snubbers of the same design and manufacturer, irrespective of capacity.

b. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.7.5-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.7.5-1 and the first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before Amendment .

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result

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4.7.5.c (continued)

of visual inspections shall be classified as unacceptable and may be reclassified as 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 that particular snubber and for other snubbers irrespective of type that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.5.f. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

d. Transient Event Inspection

An inspection shall be performed of all snubbers attached to sections of systems that have experienced unexpected, potentially damaging transients, as determined from a review of operational data or a visual inspection of the systems, within 72 hours for accessible areas and within 6 months for inaccessible areas following this determination. In addition to satisfying the visual inspection acceptance criteria, freedom-of-motion of mechanical snubbers shall be verified using at least one of the following: (1) manually induced snubber movement, or (2) evaluation of in-place snubber piston setting, or (3) stroking the mechanical snubber through its full range of travel.

e. Functional Tests

At least once per 18 months during shutdown, a representative sample of snubbers shall be tested using one of the following sample plans for each type of snubber. The sample plan shall be selected before the test period and cannot be changed during the test period. The NRC Regional Administrator shall be notified in writing of the sample plan selected before the test period or the sample plan used in the previous test period shall be implemented:

1. An initial representative sample of at least 10% of the total of each type of snubber shall be functionally tested either in place or in a bench test. For any snubber(s) of a type that do not meet the functional test acceptance criteria of Specification 4.7.5.f, an additional sample of at least 1/2 the size of the initial sample lot shall be tested until the total number tested is equal to the initial sample size multiplied by the factor, $1 + C/2$,

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4.7.5.e (continued)

where C is the total number of snubbers found to be unacceptable or all snubbers in the failure mode group have been tested; or

2. An initial representative sample of 37 snubbers of each type shall be functionally tested in accordance with Figure 4.7.5-1. "C" is the total number of snubbers found not meeting the acceptance requirements of Specification 4.7.5.f. The cumulative number of snubbers of a type tested is denoted by "N." If at any time the point plotted falls in the "Accept" region, testing of snubbers may be terminated. When the point plotted lies in the "Continue Testing" region, additional snubbers shall be tested until the point falls in the "Accept" region or all the snubbers of that type have been tested.

The representative sample selected for the functional test sample plans shall be randomly selected from the snubbers of each type and reviewed before beginning the testing. The review shall ensure, as far as practical, that they are representative of the various configurations, operating environments, range of size, and capacity of snubbers of each type. Snubbers placed in the same locations as snubbers that failed the previous functional test shall be retested at the time of the next functional test but shall not be included in the sample plan. Testing equipment failure during functional testing may invalidate the day's testing and allow that day's testing to resume anew at a later time provided all snubbers tested with the failed equipment during the day of equipment failure are retested.

If during the functional testing, additional testing is required due to failure of snubbers, the unacceptable snubbers may be categorized into failure mode group(s). A failure mode group shall include all unacceptable snubbers that have a given failure mode and all other snubbers subject to the same failure mode. Once a failure mode group has been established, it can be separated for continued testing apart from the general population of snubbers. However, all unacceptable snubbers in the failure mode group shall be counted as one unacceptable snubber for additional testing in the general population. Testing in the failure mode group shall be based on the number of unacceptable snubbers and shall continue until no more failures are found or all snubbers in the failure mode group have been tested. Any additional unacceptable snubbers found in the failure mode group shall be counted for continued testing only for that test failure mode group. In the event that a snubber(s) becomes included in more than one test failure

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4.7.5.e (continued)

mode group, it shall be counted in each failure mode group and shall be subject to the corrective action of each test failure mode group.

f. Functional Test Acceptance Criteria

The snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range in both tension and compression;
2. For mechanical snubbers, the force required to initiate or maintain motion of the snubber is within the specified range in both directions of travel; and

Testing methods may be used to measure parameters indirectly or parameters other than those specified if those results can be correlated to the specified parameters through established methods.

g. Functional Test Failure Analysis

An engineering evaluation shall be made of each failure to meet the functional test acceptance criteria to determine the cause of the failure. The results of this evaluation shall be used, if applicable, in selecting snubbers to be tested in an effort to determine the OPERABILITY of other snubbers irrespective of type which may be subject to the same failure mode.

For the snubbers found inoperable, an engineering evaluation shall be performed on the components to which the inoperable snubbers are attached. The purpose of this engineering evaluation shall be to determine if the components to which the inoperable snubbers are attached were adversely affected by the inoperability of the snubbers in order to ensure that the component remains capable of meeting the designed service.

If any snubber selected for functional testing either fails to lock up or fails to move, i.e., frozen-in-place, the cause will be evaluated and if caused by manufacturer or design deficiency, or unexpected transient event, all snubbers of the same type subject to the same defect shall be functionally tested. Snubbers of the same type subject to the same defect shall be categorized as one failure mode group for the purpose of additional testing per Specification 4.7.5.e.

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4.7.5 (continued)

h. Functional Testing of Repaired and Replaced Snubbers

Snubbers that fail the visual inspection or the functional test acceptance criteria shall be repaired or replaced. Replacement snubbers and snubbers that have repairs that might affect the functional test result shall be tested to meet the functional test criteria before installation in the unit. Mechanical snubbers shall have met the acceptance criteria subsequent to their most recent service, and the freedom-of-motion test must have been performed within 12 months before being installed in the unit.

i. Snubber Service Life Program

The service life of all snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The maximum expected service life for various seals, springs, and other critical parts shall be determined and established on the basis of engineering information and shall be extended or shortened on the basis of monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be OPERABLE. The parts replaced shall be documented and the documentation shall be retained in accordance with Specification 6.10.1.2.

TABLE 4.7.5-1

SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, the licensee must make and document that decision before any inspection and shall use that decision as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

TABLE 4.7.5-1 (continued)

SNUBBER VISUAL INSPECTION INTERVAL

- Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.
- Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.
- Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the differences in the numbers in Columns B and C.
- Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

ATTACHMENT B

NIAGARA MOHAWK POWER CORPORATION

LICENSE NO. NPF-69

DOCKET NO. 50-410

Supporting Information and No Significant Hazards Evaluation

Introduction

The current Nine Mile Point Unit 2 Technical Specifications impose surveillance requirements for visual inspection and functional testing of all safety-related snubbers. Visual inspection is performed to detect potential impaired operability caused by corrosion and/or degradation due to environmental exposure. Functional testing involves removing a snubber from its installed location and testing it on a test stand to verify its capability to operate within its specified performance limits. Functional testing requirements for safety-related snubbers are based on providing a 95 percent confidence level that at least 90 percent of the safety-related snubbers in the plant will be operable. The performance of visual examinations is a separate process that complements the functional testing program and provides additional confidence in snubber operability.

The current schedule for visual inspections is based on the number of inoperable snubbers found during previous inspections, irrespective of the size of the snubber population. Generic Letter 90-09 proposed an alternate schedule for the performance of snubber visual inspections that maintains the same confidence level as the current schedule, generally allows visual inspections and corrective actions to be performed during plant outages, and results in a reduction in required manpower and radiological exposure.

Discussion

The current Nine Mile Point Unit 2 Technical Specifications impose surveillance requirements for visual inspection and functional testing of all safety-related snubbers. The visual inspection program is separate from and complementary to the functional testing program and provides additional confidence in snubber operability. Neither program is dependent on the other in assuring that the program's reliability goals are met. Therefore, an increase in the required visual inspection interval does not reduce the confidence in snubber system reliability which is obtained by functional testing.

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The visual inspection frequency table in the Unit 2 Technical Specifications was developed by the Nuclear Regulatory Commission as part of the Standard Technical Specifications and utilizes the absolute number of inoperable snubbers found during visual inspection. Specific statistical goals were combined with an assumption of a small population to generate the existing Technical Specifications. The snubber population at Nine Mile Point Unit 2 is significantly larger than the population used to develop the existing inspection schedule, and consequently the visual inspection requirements are more restrictive than originally intended.

The alternate inspection schedule proposed in the generic letter is based on the number of unacceptable snubbers found during the previous inspection in proportion to the size of the snubber populations (accessible or inaccessible) and the length of the previous inspection interval. The next visual inspection interval may be twice the previous interval, the same as the previous interval, or reduced by as much as one-third of the previous inspection interval. The proposed inspection schedule allows inspection intervals to be compatible with a 24-month fuel cycle and the inspection interval may be as long as 48 months if few unacceptable snubbers are found.

Proposed Table 4.7.5-1 establishes three limits, Columns A, B, and C, for determining the next visual inspection interval corresponding to the population of a snubber category. For a given population that differs from the representative size provided, the values for limits may be found by interpolation from the limits provided in Columns A, B, and C. If the number of unacceptable snubbers is less than or equal to the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months. If the number of unacceptable snubbers is greater than the number in Column A but less than or equal to the number in Column B, the next interval shall be the same as the previous interval. If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be reduced to two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C and greater than the number in Column B, the next inspection interval shall be reduced proportionally by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers and the number in Column B to the difference between the numbers in Columns B and C.

There are no hydraulic snubbers currently installed at Nine Mile Point Unit 2. Therefore, the proposed requirements contained in Generic Letter 90-09 pertaining to hydraulic snubbers are not included in the proposed changes to Unit 2 Technical Specifications. If Niagara Mohawk determines the need exists to install any hydraulic snubbers at some future date, the

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appropriate changes to the Technical Specifications will be made at that time. Also, the Technical Specifications refer to the first refueling outage as (1) the first inspection period for functional testing of snubbers and as (2) the second inspection period for visual inspection of snubbers. Since the inspections and tests required during the first refueling outage have been performed, the references to the first refueling outage have been proposed for deletion.

Conclusion

The proposed change provides the same level of confidence as the previous requirement. The proposed change involves only visual surveillance requirements and does not alter the current Limiting Condition for Operation or the accompanying Action Statement for the snubber system. The statistical methods employed as the bases for the proposed Technical Specification change will not be used to alter the current Technical Specification requirement that all safety-related snubbers be operable or as justification to allow a snubber to remain in an inoperable condition. Further, the conservative Technical Specification requirement to visually inspect 100% of the safety-related snubbers during the required inspection will not be altered.

10CFR50.91 requires that at the time a licensee requests an amendment, it must provide to the Commission its analysis using the standards in 10CFR50.92 concerning the issue of no significant hazards consideration. Therefore, in accordance with 10CFR50.91, the following analysis has been performed:

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not involve a significant increase in the probability or consequences of an accident previously evaluated.

Increasing the length of the snubber visual inspection interval does not affect the function, installation, location, or configuration of any snubbers nor does it affect the design or function of any piping or systems protected by snubbers. The existing snubber operability requirements will remain intact. Thus, the proposed change will not alter the plant configuration or any mode of operation. The proposed visual inspection requirements, together with the existing functional test requirements, will effectively verify snubber system reliability. Thus, adequate assurance exists that plant systems will remain operable and capable of performing their intended functions during postulated seismic and/or dynamic events. Also, lengthening the inspection interval has no effect on the probability of an accident since a snubber failure does not initiate an accident. Therefore, operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not

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involve a significant increase in the probability or consequences of an accident previously evaluated.

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not create the possibility of a new or different kind of accident from any accident previously evaluated.

Increasing the length of the snubber visual inspection interval does not affect the function, installation, location, or configuration of any snubbers nor does it affect the design or function of any piping or systems protected by snubbers. Thus, the proposed change will not alter the plant configuration or any mode of operation. Therefore, operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not create the possibility of a new or different kind of accident from any accident previously evaluated.

The operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety.

The proposed change involves only visual surveillance requirements and does not alter the current Limiting Condition for Operation or the accompanying Action Statement for the snubber system. The required functional testing of safety-related snubbers will maintain the required 95% confidence that at least 90% of all safety-related snubbers are operable at all times. This functional testing, along with the proposed visual inspection intervals, will provide adequate assurance that the snubber system will adequately perform its intended function. Therefore, operation of Nine Mile Point Unit 2, in accordance with the proposed amendment, will not involve a significant reduction in a margin of safety.