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Central File

NOV 26 1984

Docket No. 50-410

MEMORANDUM FOR: Thomas M. Novak, Assistant Director
for Licensing
Division of Licensing

FROM: James P. Knight, Assistant Director
Components & Structures Engineering
Division of Engineering

SUBJECT: SER INPUT ON EQUIPMENT QUALIFICATION FOR NINE MILE POINT 2

Plant Name: Nine Mile Point 2
Docket No.: 50-410
Licensing Stage: OL
Responsible Branch: Licensing Branch No. 2
Responsible Project Manager: M. Haughey
Review Status: Continuing

The enclosed Safety Evaluation Report (SER) input was prepared by DE:C&SE, Equipment Qualification Branch and covers the following items in the subject report:

(1) Seismic and Dynamic Qualification of Seismic Category I Mechanical and Electrical Equipment.

(2) Pump and Valve Operability Assurance Program

The Equipment Qualification Branch provides in the enclosure the current review status of each of the items presently assigned to them.

The adequacy of the overall qualification program will be determined based upon an on-site plant audit. The seismic and dynamic qualification program audit (item 1) will be conducted by the Seismic Qualification Review Team (SQRT) and the pump and valve operability assurance program audit (item 2) will be conducted by the Pump and Valve Operability Review Team (PVORT). We

XA

A/E

plan to conduct the PVORT audit concurrent with the SQRT audit. These audits will be conducted when at least 85% of the safety related equipment is qualified, documented in an auditable manner, and installed in the plant.

Original Signed By:
James P. Knight

James P. Knight, Assistant Director
Components & Structures Engineering
Division of Engineering

Contact: SQRT N. Romney, X28115
PVORT R. Wright, X28209

Enclosure: As stated

cc: V. Noonan
A. Schwencer
M. Haughey
G. Bagchi
J. Jackson
N. Romney
R. Wright
R. Miller, BNL
C. Hofmayer, BNL

DE/EQB	DE/EQB	DE/EQB	DE/EQB	DE/CSE
RWright	NRomney	GBagchi	VNoonan	JPKnight
11/19/84	/19/84	11/20/84	11/20/84	11/20/84

Status of Review for Nine Mile Point 2 Docket No. 50-410
Seismic and Dynamic Loads Section
Equipment Qualification Branch
October, 1984

(1) Seismic and Dynamic Qualification of Seismic Category I Mechanical and Electrical Equipment: SER input is attached. Review is continuing.

(2) Pump and Valve Operability Assurance Program: SER input is attached. Review is continuing.

(3) Containment Isolation Dependability (Part of TMI Action Item II.E.4.2): Applicant to provide detailed information on operability of containment purge and vent valves. Review is open.

(4) Performance Testing of Relief and Safety Valves (Part of TMI Action Item II.D.1): Applicant's response to plant specific request for additional information has been received and will be reviewed. Review is continuing.

(5) Verify Qualification of Accumulators for Automatic Depressurization System Valves (Part of TMI Action Item II.K.3.28): FSAR material under staff review. Review is continuing.

(6) Long Term Operability of Deep Draft Pumps (IE Bulletin 79-15): Under staff review. Review is continuing.

Safety Evaluation Report Input
Nine Mile Point 2, Docket No. 50-410
Equipment Qualification Branch

3.10 Seismic and Dynamic Qualification of Seismic Category I Mechanical and Electrical Equipment

3.10.1 Seismic and Dynamic Qualification

The staff's evaluation of the adequacy of the applicant's program for qualification of electrical and mechanical equipment important to safety for seismic and dynamic loads consists of (1) a determination of the acceptability of the procedures used, standards followed, and the completeness and adequacy of the implementation of the entire seismic and dynamic qualification program.

The staff has reviewed the methodology and procedures of the seismic and dynamic qualification program contained in the pertinent FSAR Sections 3.9.2, 3.9.3, and 3.10. The review of the seismic qualification program description included an assessment of the test and analysis methods and general criteria and guidelines used for testing and selection of representative or typical equipment. The staff finds that the equipment qualification program, except as described below, meets the intent of the acceptance criteria specified in SRP Section 3.10. To comply with SRP Section 3.10 the applicant's qualification program must meet the requirements and recommendations of IEEE 344-1975 (or for category 2 plants, identify and justify the use of other criteria), and the regulatory positions of RGs 1.61, 1.89, 1.92, and 1.100 to provide adequate assurance that such equipment will function properly under all imposed design and service loads including the loadings by the safe shutdown earthquake, postulated accidents, and loss-of-coolant accidents.

Compliance with these regulatory guides was accomplished through an alternate approach which is not fully described in the FSAR. Also because this is a category 2 plant (CP application dockets before October 27, 1972), the General Electric equipment has been qualified to earlier standard and guidelines that

require supplementary support to satisfy NRC requirements. The applicant must clarify in an amendment to the FSAR this additional support and provide the information requested below for both the nuclear steam supply system and some of the balance of plant equipment as applicable.

(1) Applicant's Tables 3.10A-1 and 3.10.B-1 of the FSAR which are to be provided by the applicant in the third quarter of 1984 will be reviewed for completeness. These tables should also reference all the important applicable standards which are met in the qualification process particularly those referenced in SRP Section 3.10.

(2) While it is recognized that qualification to IEEE 382-1972 was used, since NMP-2 in a category 2 plant, the applicant should clarify in the FSAR what additional guidelines are used to upgrade the qualification to reflect the considerations stated in SRP Section 3.10. Indicate what operability testing is included simultaneous with thermal aging and discuss fatigue considerations for number of actuation cycles, since these are not addressed in the 1972 standard.

(3) In the staff's review of the HPCS diesel generator, it is not clear that the check valve upstream of the air receiver tank is qualified against well established leakage criteria following a seismic event. The applicant should amend the FSAR to clarify how sufficient are capacity is assured to start the HPCS diesel generator immediately after a seismic event.

(4) While mounted components are described as qualified to acceleration levels consistent with those transmitted by their supporting structures, the applicant is to clarify in the FSAR how the equipment interactions with the mounting are addressed considering actual deflections.

(5) Although the applicant has committed to follow the requirements and recommendations of IEEE 344-1975 and RG 1.100 for balance of plant equipment, the methods of handling aging effect on seismic capability of both electrical and mechanical equipment should be clarified in an amendment to the FSAR. In addition, the applicant should clarify how the General Electric generically qualified equipment to IEEE Std. 344-1971, without full use of RG 1.100 which is applicable to NMP-2. The applicant should also describe what additional measures were taken to ensure adequate consideration was given to aging, sequential testing and upgrading of analytical methods as appropriate.

(6) The applicant should commit within the FSAR to establish a maintenance and surveillance program to maintain equipment in a qualified status throughout plant life.

(7) The applicant should amend the FSAR description of its seismic qualification program and clarify the seismic margin for the required response spectra employed with respect to safety-related mechanical equipment. Also while qualification tests were performed on cabinets, vertical boards and benchboards for electrical equipment, the applicant needs to clarify the methodology used to qualify multicabinet assemblies, particularly those too large to test.

(8) The applicant's description of testing of equipment to frequencies up to 33 Hz needs to be extended in the FSAR to address higher frequencies for the BOP equipment. The applicant has committed within the FSAR to qualify the SLC, RCIC and ECCS pump assemblies, the ADS and main steam SRV accumulator system to hydrodynamic loads. However, the FSAR should be amended to clarify what additional safety-related mechanical equipment may see high frequencies from hydrodynamic loads. Describe in Section 3.10 the tests and analyses conducted on all such equipment to properly include the envelope of input motion produced by hydrodynamic loads.

The staff will follow the applicant's effort closely, and will confirm its implementation during the onsite audit. During the plant site audit, the staff will review in detail the applicant's implementation of the qualification program to confirm that all applicable loads and combinations of loads have

been defined, operability has been verified through appropriate tests and analyses, assemblies rather than individual components have been verified operable, and that for all safety related equipment, operability can be assured through the plant life. Where static coefficent analysis was used to demonstrate seismic adequacy the staff will confirm compliance with R.G.1.100. Approximately 85% of the equipment must be qualified, documented in an auditable manner, and installed on site before an onsite audit by the staff can be performed. When the applicant indicates that his work is a least 65% complete, the staff will then conduct an onsite audit shortly thereafter. The staff will report the results of its audit and the followup and resolution of its concerns described above in a future supplement to the SER.

3.10.2 Pump and Valve Operability Assurance

The staff evaluation of the adequacy of the pump and valve operability assurance program consists of two parts. First a determination is made of the completeness of the program with regard to the standards and guides used and the procedures used for program implementation. This determination is based upon the sufficiency of information in the FSAR and its supporting documents which gives evidence that the applicant is following a disciplined and thorough program for pump and valve operability assurance. Upon a satisfactory evaluation of the FSAR information an onsite audit of selected equipment is performed. This second part, the audit, is to develop the basis for the staff's judgment regarding the adequacy and completeness of implementation of the entire program on pump and valve operability assurance.

The pump and valve operability review team (PVORT) has reviewed the scope, methodology, and procedures of the pump and valve operability assurance program described in FSAR Section 3.9.3 and selected parts of FSAR Sections 3.2 and 3.9.2.

The information in the FSAR suggests compliance with the general intent of the acceptance criteria as specified in the SRP Section 3.10. Based upon the commitments in the FSAR, the applicant's qualification program for balance of plant equipment does meet the requirements and recommendations of IEEE Standard 323-1974 and IEEE Standard 344-1975. However, the qualification program for the nuclear steam supply system equipment complies with the earlier standards IEEE Standard 323-1971 and IEEE Standard 344-1971; clarification is needed on some of the additional measures taken to upgrade the level of qualification because NRC requirements in the areas of aging and dynamic test methods exceed those of the earlier standards. The staff requires that the FSAR describe further the use made of applicable references in SRP Section 3.10 and other guidelines to ensure that the equipment is qualified and will operate properly under all imposed design and service conditions, including the loadings imposed by the safe shutdown earthquake, postulated accidents and loss of coolant accidents. The following areas require clarification or resolution:

(1) The extent to which the complete draft standards ANSI/ASME QNPE-1 (N551.1), QNPE-2 (n551.2) QNPE-3 (N551.3), QNPE-4 (N55.4) and N41.6 and issued standard ANSI/ASME B.16.41 are used needs to be clearly stated in the FSAR.

(2) The applicant has stated compliance with Regulatory Guide 1.148. However, the discussion of testing in the operational condition is limited with regard to several components. Assessment of degraded conditions and how testing was tailored to meet the requirements of SRP Section 3.10, paragraph II.1.a(2) should be addressed in the FSAR. Also, a commitment to Regulatory Guide 1.148 for replacement components should be clearly stated in the FSAR.

(3) The applicant should amend the existing tables of pumps and valves in the FSAR to include the standards used for qualification. As an alternate, a separate table may be provided which includes the above information correlated to tables 3.9A-1 and 3.9B-4.

(4) In many cases the motor of an assembly was independently qualified and the pump separately qualified for operation, using the inputs at the mounting. Further justification is needed in the FSAR to describe how an acceptable qualification of the assembly was arrived at, considering simultaneous dynamic interactions between the pump, motor and pedestal/mounting structure.

(5) Aging and the sequence of environmental conditions on the qualification process is only briefly addressed in the FSAR. Clarify how these findings will be reflected in the maintenance and surveillance program. The FSAR should include the criteria for the maintenance program as it relates to equipment qualification test and analysis results.

(6) The criteria used to determine what auxiliary, active, safety-related equipment is included in the FSAR tables of active safety-related equipment should be described in an amendment to the FSAR. For example, while the HPCS diesel generator is described in Section 8.3.1.1.2, active valves and other auxiliary safety related equipment related to the air starting system should be included in Table 3.9A-9.

(7) The FSAR should be amended to include the generic testing criteria for qualifying check valves for service conditions. The FSAR should address considerations of load conditions (end loads, vibrations, seismic and reverse flow) and environmental conditions (thermal and radiation aging of sensitive materials) and their impact on valve function and valve leakage.

The applicant should submit FSAR Amendments to resolve the identified FSAR deficiencies. In addition, the PVORT will follow the applicant's effort closely, and will confirm its implementation during the on-site plant audit. During the on-site plant audit the staff will review in detail the implementation of the applicant's program to confirm that all applicable loads and combinations of loads have been defined, operability has been verified through appropriate tests and analyses, assemblies rather than individual

components have been verified operable, and that for all safety-related equipment operability can be assured through the plant life. At least 85% of the safety-related equipment must be qualified, documented in an auditable manner, and installed before an on-site plant audit by the PVORT can be performed. When the applicant indicates that his work has reached this status the PVORT will schedule an on-site audit. The staff will report the results of the audit and the followup and resolution of the concerns described above in a future supplement to the SER.

DOCKET NO. 50-410

DISTRIBUTION
DOCKET FILE
PSB R/F
F. Witt
J. Kudrick
D. Vassallo
G. Lainas

MEMORANDUM FOR: Elinor Adensam, Director
BWR Project Directorate No. 3
Division of BWR Licensing

FROM: Gus C. Lainas, Assistant Director
Division of BWR Licensing

SUBJECT: NINE MILE POINT UNIT 2 TECHNICAL SPECIFICATION

The Plant Systems Branch has reviewed the applicable sections of the applicant's submittal, dated August 6, 1986, regarding additional Technical Specification changes. We have completed our review for all the requested changes except one. The MSIV related change has required significant amounts of added information which we have recently received. This issue should be resolved prior to exceeding 5% power since the MSIV's have been leak tested but, by a test method which has not been approved by the staff. The fact that tests have been performed provided reasonable assurance that some degree of leak tightness has been demonstrated, even if further testing becomes necessary. For the remaining changes, we find them acceptable with minor modifications (the marked up pages are enclosed). Additionally, changes related to 10 CFR 50, Appendix J, required a supporting SER which is also enclosed. Our SALP for this effort is attached.

ORIGINAL SIGNED BY
D. VASSALLO FOR
Gus C. Lainas, Assistant Director
Division of BWR Licensing

Enclosures: As stated

cc w/enclosures:
R. W. Houston
T. Speis
D. Crutchfield
E. Rossi
C. Schulten
M. Haughey

Contact: F. Witt (X29440)

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5520 Document Name: 9 MILE POINT TECH. SPEC.

OFC	:PSB:DBL	:PSB:DBL	:PSB:DBL	:FOB:DBL	:AD-BWR:DBL	:	:
NAME	:FWitt/ch	:JKudrick	:LGHolman	:DVassallo	:GLainas	:	:
DATE	:8/22/86	:8/25/86	:8/25/86	:8/27/86	:8/27/86	:	:

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A/6

Subject: Justification for Technical Specification Change to Main Steam Isolation Valve Leak Rate

The current Nine Mile Point Unit 2 Technical Specification Table 3.6.1.2-1 allows six standard cubic foot per hour (scfh) of leak rate per Main Steam Isolation Valve (MSIV). This leak rate is based on potential bypass analytical limit of 6 scfh of leakage through the valve under Loss-of-Coolant-Accident (LOCA) condition. To ensure that the MSIV leak rate is within the Technical Specification limit, the MSIV ball valve is leak tested through a test connection such that the volume between the valve's two seats is pressurized to test condition. The flow resistance under this test condition (two seats in parallel) is less than the flow resistance that would be encountered under the LOCA condition (two seats in series). Thus, the leak rate when testing the valves between the seats could exceed 6 scfh but still satisfy the LOCA potential bypass analytical limit for leakage through the valve. Calculations show that a leak rate under field test condition of 14.86 scfh (valve seats in parallel) is equivalent to the LOCA bypass analytical limit of 6 scfh with the valve seats in series. Niagara Mohawk, therefore, requests changes to the Technical Specification allowable leakage rate for the MSIVs to reflect the actual test configuration. The requested change to the Technical Specifiction Table 3.6.1.2-1 is attached.

CHANGE REQUESTED TO SUPPORT OPERATIONAL FLEXIBILITY

issue under review

some info obtained 8/21/86

F.J.W.

8/21/86

Subject: Justification for change to Technical Specification Bases 3/4.6.3, "Primary Containment Isolation Valves"

The requested change is enclosed. This change will clarify the relationship between isolation system instrumentation response time and isolation valve closing time.

CHANGE REQUESTED FOR CLARIFICATION

OK
FJN
8/21/86

Subject: Justification for changes to Technical Specification Tables 3.3.7.10-1 and 4.3.7.10-1 in the area of radioactive liquid effluent monitoring instrumentation

The current Technical Specification Section 3.3.7.10 requires the Liquid Radwaste Monitor to be OPERABLE at all times, whether radwaste discharge is occurring or not. System design provides three valves to prevent inadvertent discharge. These valves must be specifically lined up in the course of making a discharge. Inherent in this design is the isolation of the small section of discharge line from and to which the Liquid Radwaste monitor's sample pump takes supply and return. When in continuous use, the sample pump produces more heat than can be dissipated in the small volume of water contained in this section of pipe. Therefore, it is requested to revise Technical Specification Tables 3.3.7.10-1 and 4.3.7.10-1 to provide:

1. The Liquid Waste Monitor must be OPERABLE at all times during discharge of liquid waste.

2. The CHANNEL CHECK and SOURCE CHECK are to be performed P (prior to discharge).

The requested changes to Technical Specification Tables 3.3.7.10-1 and 4.3.7.10-1 are enclosed. These changes also affect the Final Safety Analysis Report and the Safety Evaluation Report. Changes to the appropriate pages of these reports are also enclosed.

CHANGE REQUESTED FOR CERTIFICATION

Revise change request as indicated
Discussed with Jay Lee 8/21/86
F. J. Witt
8/21/86

FINAL DRAFT

INSTRUMENTATION

MONITORING INSTRUMENTATION

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

LIMITING CONDITIONS FOR OPERATION

3.3.7.10 The radioactive liquid effluent monitoring instrumentation channels shown in Table 3.3.7.10-1 shall be OPERABLE with their Alarm/Trip Setpoints set to ensure that the limits of Specification 3.11.1.1 are not exceeded. The Alarm/Trip Setpoints of these channels shall be determined and adjusted in accordance with the methodology and parameters in the OFFSITE DOSE CALCULATION MANUAL (ODCM).

APPLICABILITY: ~~At all times~~ During releases via this pathway

ACTION:

a. With a radioactive liquid effluent monitoring instrumentation channel Alarm/Trip Setpoint less conservative than required by the above specification, immediately suspend the release of radioactive liquid effluents monitored by the affected channel, or declare the channel inoperable, or change the setpoint so it is acceptably conservative.

b. With the number of channels OPERABLE less than the Minimum Channels OPERABLE requirement, take the ACTION shown in Table 3.3.7.10-1. Restore the instruments to OPERABLE status within 30 days and, if unsuccessful, explain in the next Semiannual Radioactive Effluent Release Report why the inoperability was not corrected in a timely manner.

c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.3.7.10 Each radioactive liquid effluent monitoring instrumentation channel shall be demonstrated OPERABLE by performance of the CHANNEL CHECK, SOURCE CHECK, CHANNEL CALIBRATION and CHANNEL FUNCTIONAL TEST at the frequencies shown in Table 4.3.7.10-1.

FINAL DRAFT

TABLE 3.3.7.10-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

INSTRUMENT	MINIMUM CHANNELS OPERABLE	ACTION
1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release		
Liquid Radwaste Effluent Line	1*	128
2. Radioactivity Monitors Providing Alarm But Not Providing Automatic Termination of Release		
a. Service Water Effluent Line A	1	130
b. Service Water Effluent Line B	1	130
c. Cooling Tower Blowdown Line	1	130
3. Flow Rate Measurement Devices		
a. Liquid Radwaste Effluent Line	1	131
b. Service Water Effluent Line A	1	131
c. Service Water Effluent Line B	1	131
d. Cooling Tower Blowdown Line	1	131
4. Tank Level Indicating Devices*	1	132

* Tanks included in this specification are those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system, such as temporary tanks.

~~* This instrumentation need be OPERABLE only during [illegible] Radioactive~~

JUN 25 1986

TABLE 4.3.7.10-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

INSTRUMENT	CHANNEL CHECK	SOURCE CHECK	CHANNEL CALIBRATION	CHANNEL FUNCTIONAL TEST
1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release				
Liquid Radwaste Effluent Line	~~P~~ D SIET	P OK ~~NA~~	R(c)	M(a)(b)
2. Radioactivity Monitors Providing Alarm But Not Providing Automatic Termination of Release				
a. Service Water Effluent Line A	D	M	R(c)	SA(b)
b. Service Water Effluent Line B	D	M	R(c)	SA(b)
c. Cooling Tower Blowdown Line	D	M	R(c)	SA(b)
3. Flow Rate Measurement Devices				
a. Liquid Radwaste Effluent Line	D(d)	NA	R	Q
b. Service Water Effluent Line A	D(d)	NA	R	Q
c. Service Water Effluent Line B	D(d)	NA	R	Q
d. Cooling Tower Blowdown Line	D(d)	A	R	Q
4. Tank Level Indicating Devices*	D**	NA	R	Q

* Tanks included in this specification are those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system, such as temporary tanks.

** During liquid additions to the tank.

JUN 25 1986

FINAL DRAFT

Subject: Justification for change to Technical Definition 1.38, "Secondary Containment Integrity"

The requested change is enclosed. The change reflects the Nine Mile Point Unit 2 design. This change is made in order to make definition 1.38 consistent with 4.6.5.1.b.2 on page 3/4 6-37.

CHANGE REQUESTED FOR CERTIFICATION

OK
F. J. Witt
8/21/86

REACTOR PROTECTION SYSTEM RESPONSE TIME

1.35 (Continued)

until deenergization of the scram pilot valve solenoids. The response time may be measured by any series of sequential, overlapping, or total steps so that the entire response time is measured.

REPORTABLE EVENT

1.36 A REPORTABLE EVENT shall be any of those conditions specified in 10 CFR 50.73.

ROD DENSITY

1.37 ROD DENSITY shall be the number of control rod notches inserted as a fraction of the total number of control rod notches. All rods fully inserted is equivalent to 100% ROD DENSITY.

SECONDARY CONTAINMENT INTEGRITY

1.38 SECONDARY CONTAINMENT INTEGRITY shall exist when:

a. All reactor building and auxiliary bay penetrations required to be closed during accident conditions are either:

   1. Capable of being closed by an OPERABLE reactor building automatic isolation system, or

   2. Closed by at least one manual valve, blind flange, or deactivated automatic damper secured in its closed position, except as provided in Table 3.6.5.2-1 of Specification 3.6.5.2.

b. All auxiliary bay hatches are closed and sealed.

c. The standby gas treatment system is in compliance with the requirements of Specification 3.6.5.3.

d. At least one door in each access to the reactor building and auxiliary bays is closed ~~except during normal entry and exit~~.

e. The sealing mechanism associated with each reactor building and auxiliary bay penetration (e.g., welds, bellows, or O-rings) is OPERABLE.

f. The pressure within the reactor building and auxiliary bays is less than or equal to the value required by Specification 4.6.5.1.a.

SHUTDOWN MARGIN

1.39 SHUTDOWN MARGIN shall be the amount of reactivity by which the reactor is subcritical or would be subcritical assuming all control rods are fully inserted except for the single control rod of highest reactivity worth which is

...ONLY

NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST SYRACUSE NY 13202 TELEPHONE [illegible]

July 3, 1986
(NMP2L 0770)

Ms. Elinor G. Adensam, Director
BWR Project Directorate No. 3
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Washington, DC 20555

Dear Ms. Adensam:

Re: Nine Mile Point Unit 2
Docket No. 50-410

Niagara Mohawk requests changes to Nine Mile Point Unit 2 Technical Specifications in the area of Fire Protection Program.

In response to our discussion with Mr. C. Shulten and Mr. D. Kubicki on June 3, 1986, the proposed changes to the Technical Specifications, as well as justification for these changes are attached.

Very truly yours,

cvmangan

C. V. Mangan
Senior Vice President

LL:ja
1778G

Attachments

xc: R. A. Gramm, NRC Resident Inspector
Project File (2)

Aug 21, 1986

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
Niagara Mohawk Power Corporation	)	Docket No. 50-410
(Nine Mile Point Unit 2)	)	

AFFIDAVIT

C. V. Mangan, being duly sworn, states that he is Senior Vice President of Niagara Mohawk Power Corporation; that he is authorized on the part of said Corporation to sign and file with the Nuclear Regulatory Commission the documents attached hereto; and that all such documents are true and correct to the best of his knowledge, information and belief.

C V Mangan

Subscribed and sworn to before me, a Notary Public in and for the State of New York and County of Onondaga, this 3rd day of July, 1986.

Christine Austin
Notary Public in and for
Onondaga County, New York

My Commission expires:

CHRISTINE AUSTIN
Notary Public in the State of New York
Qualified in Onondaga Co. No. 4787687
My Commission Expires March 30, 1987

DRAFT

PLANT SYSTEMS

FIRE SUPPRESSION SYSTEMS

HALON SYSTEMS

LIMITING CONDITIONS FOR OPERATION

3.7.7.4 The following Halon systems shall be OPERABLE with the storage tanks having at least 95% of full charge weight or level* and 90% of full charge pressure:

ZONE NO.	BUILDING/ELEVATION
353 SG	Control/288' 6"
354 SG	Control/288' 6"
362 SG	Control/288' 6"
357 XG	Control/288' 6"
358 XG	Control/288' 6"
374 SG	Control/306' 0"
375 SG	Control/306' 0"
381 SG	Control/306' 0"
376 XG	Control/306' 0"

APPLICABILITY: Whenever equipment protected by the Halon systems is required to be OPERABLE.

ACTION:

a. With one or more of the above required Halon systems inoperable, within 1 hour establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged; for other areas, establish an hourly fire watch patrol.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.7.4 Each of the above required Halon systems shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve-manual, power-operated, or automatic in the flow path is in its correct position.

b. At least once per 6 months by verifying Halon storage tank weight ~~and pressure~~ or level* and pressure.

* Level determination for the purpose of verifying Halon system OPERABILITY shall conform to NRC accepted UL or FM test procedures and/or equipment.

PLANT SYSTEMS

FIRE SUPPRESSION SYSTEMS

FIRE SUPPRESSION WATER SYSTEM

SURVEILLANCE REQUIREMENTS

4.7.7.1.1 (Continued)

c. At least once per 6 months by performance of a system flush.

d. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.

e. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:

1. Verifying that each automatic valve in the flow path actuates to its correct position,

2. Verifying that each fire suppression pump develops at least 2500 gpm at a net discharge head of 113 psig,

3. Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel, and

4. Verifying that each fire suppression pump starts and maintains the fire suppression water system pressure of 125 psig or more.

f. At least once per 3 years by performing a flow test of the system in accordance with Chapter 6, Section 16, of the Fire Protection Handbook, 15th Edition, published by the National Fire Protection Association.

4.7.7.1.2 The diesel driven fire suppression pump shall be demonstrated OPERABLE:

a. At least once per 31 days by:

1. Verifying the fuel day tank contains at least 350 gallons of fuel.
2. Starting the diesel driven pump from ambient conditions and operating for greater than or equal to 30 minutes on recirculation flow.

b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank, obtained in accordance with ASTM D4057-81, is within the acceptable limits specified in Table 1 of ASTM D975-81 when checked for viscosity, water, and sediment.

c. At least once per 18 months ~~during shutdown~~ by subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the class of service.

NINE MILE POINT, UNIT 2

SECTION 4.7.7.4(b) HALON SYSTEMS

EXISTING

At least once per 6 months be verifying Halon storage tank weight and pressure.

PROPOSED

At least once per 6 months by verifying Halon storage tank weight or level and pressure.

DISCUSSION

Section 3.7.7.4(LCO) provides the option of using level to determine the current capacity of the storage tanks. In addition, Bases Section 3/4.7.7 identifies that level measurements are made by either a UL listed or FM approved method. The change identified above would be consistent with these references and enable the surveillance to be performed without physically disconnecting the storage tank from the discharge manifold. To satisfy an NRC concern, a footnote will be added where ever reference is made to level measurement for this system which will read as follows:

"Level determination for the purpose of verifying Halon System operability shall conform to NRC accepted UL or FM test procedures and/or equipment."

NINE MILE POINT, UNIT 2

SECTION 4.7.7.1.2(c) FIRE SUPPRESSION WATER SYSTEM

EXISTING

At least once per 18 months, during shutdown, by subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the class of service.

PROPOSED

At least once per 18 months, by subjecting the diesel .....

DISCUSSION

Based on industry operating experience, fires are more likely to occur during an outage when construction activity at the site is elevated. Therefore, the basis for limiting this activity during shutdown is undesireable. It is our intention to have available for service the diesel engine driven fire pump during the outage, if possible. Any necessary scheduled maintenance work would be performed either prior to, during, or after the outage in accordance with the surveillance interval specified.

During this period of maintenance, the provisions of Section 3.7.7.1 will be maintained. Two 100% back-up fire pumps could be readily available for service to supply Unit 2, if required, by cross connecting the existing underground distribution system between the two units.

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DRAFT

PLANT SYSTEMS

FIRE SUPPRESSION SYSTEMS

HALON SYSTEMS

LIMITING CONDITIONS FOR OPERATION

3.7.7.4 The following Halon systems shall be OPERABLE with the storage tanks having at least 95% of full charge weight or level* and 90% of full charge pressure:

ZONE NO.	BUILDING/ELEVATION
353 SG	Control/288' 6"
354 SG	Control/288' 6"
362 SG	Control/288' 6"
357 XG	Control/288' 6"
358 XG	Control/288' 6"
374 SG	Control/306' 0"
375 SG	Control/306' 0"
381 SG	Control/306' 0"
376 XG	Control/306' 0"

APPLICABILITY: Whenever equipment protected by the Halon systems is required to be OPERABLE.

ACTION:

a. With one or more of the above required Halon systems inoperable, within 1 hour establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged; for other areas, establish an hourly fire watch patrol.

b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.7.4 Each of the above required Halon systems shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve-manual, power-operated, or automatic in the flow path is in its correct position.

b. At least once per 6 months by verifying Halon storage tank weight ~~and pressure~~ or level* and pressure.

* Level determination for the purpose of verifying Halon system OPERABILITY shall conform to NRC accepted UL or FM test procedures and/or equipment.

APR 04 1986

Subject: Change to Technical Specification Definition 1.42, "Source Check"

The requested change and justification for the change were submitted to you in a letter dated July 24, 1986. That letter is enclosed for your information.

CHANGE REQUESTED FOR CERTIFICATION

OK

W Brunk

(See attached)

SHUTDOWN MARGIN

1.39 (Continued)

assumed to be fully withdrawn and the reactor is in the shutdown condition, cold (i.e., 68°F), and xenon free.

SITE BOUNDARY

1.40 The SITE BOUNDARY shall be that line around the Nine Mile Point Nuclear Station beyond which the land is not owned, leased, or otherwise controlled by the Niagara Mohawk Power Corporation or the New York State Power Authority.

SOLIDIFICATION

1.41 SOLIDIFICATION shall be the conversion of wet wastes into a form that meets shipping and burial ground requirements.

SOURCE CHECK

1.42 A SOURCE CHECK shall be the qualitative assessment of channel response ~~to verify alarm and/or trip functions and channel failure trips~~ when the channel sensor is exposed to a source of increased activity.

STAGGERED TEST BASIS

1.43 A STAGGERED TEST BASIS shall consist of:

a. A test schedule for n systems, subsystems, trains, or other designated components obtained by dividing the specified test interval into n equal subintervals.

b. The testing of one system, subsystem, train, or other designated component at the beginning of each subinterval.

THERMAL POWER

1.44 THERMAL POWER shall be the total reactor core heat transfer rate to the reactor coolant.

TURBINE BYPASS SYSTEM RESPONSE TIME

1.45 The TURBINE BYPASS SYSTEM RESPONSE TIME consists of two time intervals:

a. Time from initial movement of the main turbine stop valve or control valve until 80% of turbine bypass capacity is established, and

b. the time from initial movement of the main turbine stop valve or control valve until initial movement of the turbine bypass valve.

Either response time may be measured by any series of sequential, overlapping, or total steps, so that both entire response time components are measured.

Subject: Justification for changes to Technical Specification Table 3.6.3-1, "Primary Containment Isolation Valves"

The requested changes are enclosed. The changes are consistent to our letter dated July 3, 1986 which requested three relief valves to be tested under reverse flow condition and 13 relief valves to be exempt from Type C testing. Our letter dated July 3, 1986 is also enclosed for your information. Subsequent discussion with Mr. J. Kudrick and Ms. M. Hughey, of your staff, resolved their review concerns.

CHANGE REQUIRED CERTIFICATION

SER attached