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SUBJECT: Forwards response to Generic Ltr 91-06, "Resolution of Generic Issue A-30, 'Adequacy of Safety-Related DC Power Supplies.'"

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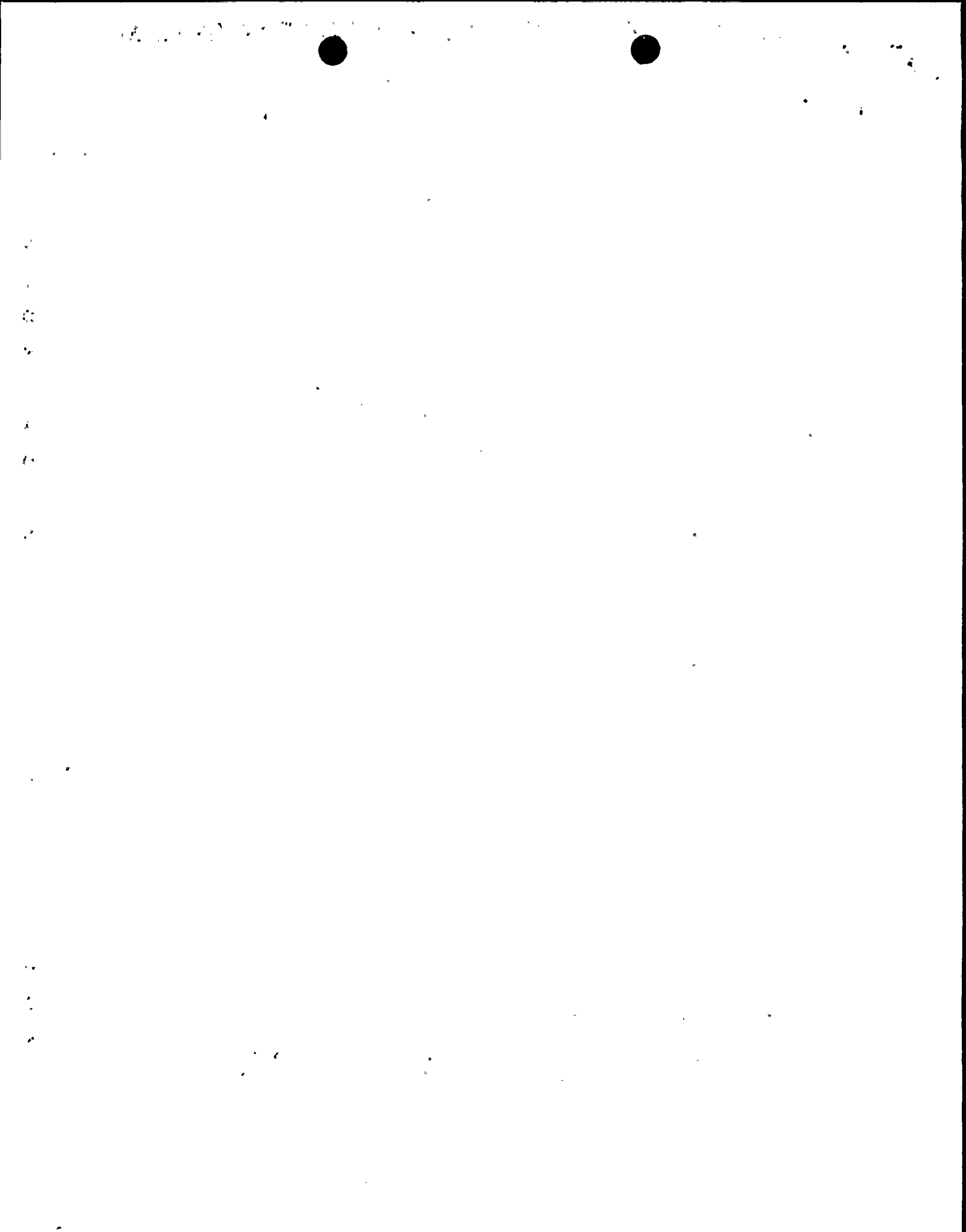
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October 21, 1991
NMP1L 0619

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Re: Nine Mile Point Unit 1 Nine Mile Point Unit 2
 Docket No. 50-220 Docket No. 50-410
 DPR-63 NPF-69

Gentlemen:

Enclosed is Niagara Mohawk Power Corporation's response to Enclosure 1 of Generic Letter 91-06, Resolution of Generic Issue A-30, "Adequacy of Safety-Related DC Power Supplies."

As provided for in the generic letter, certain information will be submitted as part of the Individual Plant Examination (IPE).

Very truly yours,



C. D. Terry
Vice President
Nuclear Engineering

JEB/krc
001727GG

xc: Regional Administrator, Region I
 Mr. R. A. Capra, Project Director, NRR
 Mr. D. S. Brinkman, Senior Project Manager, NRR
 Mr. W. L. Schmidt, Senior Resident Inspector
 Mr. D. R. Haverkamp, Chief, Reactor Projects Section No. 1B
 Records Management

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NINE MILE POINT UNIT 1

The following information is provided in accordance with Generic Letter 91-06.

1. Unit 1
2. a. The number of independent redundant divisions of Class 1E or safety-related dc power for this plant is 2. (Include any separate Class 1E or safety-related dc, such as any dc dedicated to the diesel generators.)
b. The number of functional safety-related divisions of dc power necessary to attain safe shutdown for this unit is 1.
3. Does the control room at this unit have the following separate, independently annunciated alarms and indications for each division of dc power?
 - a. Alarms
 1. Battery disconnect or circuit breaker open? Yes
 2. Battery charger disconnect or circuit breaker open (both input ac and dc output)? Yes
 3. dc system ground? Yes
 4. dc bus undervoltage? No. The need for this provision will be evaluated in the NMP1 IPE submittal.
 5. dc bus overvoltage? No. The need for this provision will be evaluated in the NMP1 IPE submittal.
 6. Battery charger failure? Yes
 7. Battery discharge? No. The need for this provision will be evaluated in the NMP1 IPE submittal.
 - b. Indications
 1. Battery float charge current? Yes
 2. Battery circuit output current? Yes
 3. Battery discharge? Yes
 4. Bus voltage? Yes
 - c. Does the unit have written procedures for response to the above alarms and indications? Yes
4. Does this unit have indication of bypassed and inoperable status of circuit breakers of other devices that can be used to disconnect the battery and battery charger from its dc bus and the battery charger from its ac power source during maintenance or testing? Yes



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NINE MILE POINT UNIT 1

5. If the answer to any part of question 3 or 4 is no, then provide information justifying the existing design features of the facility's safety-related dc systems. *See note below.
6. (1) Have you conducted a review of maintenance and testing activities to minimize the potential for human error causing more than one dc division to be unavailable? Yes and (2) do plant procedures prohibit maintenance or testing on redundant dc divisions at the same time? Yes

If the facility Technical Specifications have provisions equivalent to those found in the Westinghouse and Combustion Engineering Standard Technical Specifications for maintenance and surveillance, then question 7 may be skipped and a statement to that effect may be inserted here. No

7. Are maintenance, surveillance and test procedures regarding station batteries conducted routinely at this plant? Specifically:
- a. At least once per 7 days are the following verified to be within acceptable limits:
1. Pilot cell electrolyte level? Yes
 2. Specific gravity or charging current? Yes
 3. Float voltage? Yes
 4. Total bus voltage on float charge? Yes
 5. Physical condition of all cells? Yes
- b. At least once per 92 days, or within 7 days after a battery discharge, overcharge, or if the pilot cell readings are outside the 7-day surveillance requirements are the following verified to be within acceptable limits:
1. Electrolyte level of each cell? Yes
 2. The average specific gravity of all cells? Yes
 3. The specific gravity of each cell? Yes
 4. The average electrolyte temperature of a representative number of cells? Yes
 5. The float voltage of each cell? Yes
 6. Visually inspect or measure resistance of terminals and connectors (including the connectors at the dc bus)? Yes
- c. At least every 18 months are the following verified:
1. Low resistance of each connection (by test)? No, the need for this provision will be evaluated in the NMP1 IPE submittal.



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NINE MILE POINT UNIT 1

2. Physical condition of the battery? No, the need for this provision will be evaluated in the NMP1 IPE submittal.
3. Battery charger capability to deliver rated ampere output to the dc bus? No, the need for this provision will be evaluated in the NMP1 IPE submittal.
4. The capability of the battery to deliver its design duty cycle to the dc bus? No, the need for this provision will be evaluated in the NMP1 IPE submittal.
5. Each individual cell voltage is within acceptable limits during the service test? No, the need for this provision will be evaluated in the NMP1 IPE submittal.

Please note that c1, c2, c4, and c5 are verified every 24 months at NMP1.

- d. At least every 60 months, is capacity of each battery verified by performance of a discharge test? Yes
 - e. At least annually, is the battery capacity verified by performance discharge test, if the battery shows signs of degradation or has reached 85% of the expected service life? Yes
8. Does this plant have operational features such that following loss of one safety-related dc power supply or bus:
- a. Capability is maintained for ensuring continued and adequate reactor cooling? Yes
 - b. Reactor coolant system integrity and isolation capability are maintained? Yes
 - c. Operating procedures, instrumentation (including indicators and annunciators), and control functions are adequate to initiate systems as required to maintain adequate core cooling? Yes
9. If the answer to any part of question 6, 7 or 8 is no, then provide your basis for not performing the maintenance, surveillance and test procedures described and/or the bases for not including the operational features cited. *See note below.

*Note: For questions involving supporting type information (question numbers 5 and 9) instead of developing and supplying the information in response to this letter, you may commit to further evaluate the need for such provisions during the performance of your individual plant examination for severe accident vulnerabilities (IPE). If you select this option, you are required to:



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NINE MILE POINT UNIT 1

- (1) So state in response to these questions, and
- (2) Commit to explicitly address questions 5 and 9 in your IPE submittal per the guidelines outlined in NUREG-1335 (Section 2.1.6, Subitem 7), "Individual Plant Examination: Submittal Guidance."

Per (2) above, Niagara Mohawk will address questions 5 and 9 in the NMP1 IPE submittal in accordance with the guidelines outlined in NUREG-1335.



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NINE MILE POINT UNIT 2

1. Unit 2
2. a. The number of independent redundant divisions of Class 1E or safety-related dc power for this plant is 3. (Include any separate Class 1E or safety-related dc, such as any dc dedicated to the diesel generators.)
b. The number of functional safety-related divisions of dc power necessary to attain safe shutdown for this unit is 1.
3. Does the control room at this unit have the following separate, independently annunciated alarms and indications for each division of dc power?

a. Alarms

1. Battery disconnect or circuit breaker open? Yes
2. Battery charger disconnect or circuit breaker open (both input ac and output dc)? No
The need for this provision will be evaluated in the NMP2 IPE submittal.
3. dc system ground? Yes
4. dc bus undervoltage? Yes
5. dc bus overvoltage? Yes

Note: There is no direct bus overvoltage alarm; however, each charger is equipped with overvoltage protection and alarm. Bus overvoltage can occur only when one of the chargers is connected to the bus.

6. Battery charger failure? Yes
7. Battery discharge? Yes

b. Indications

1. Battery float charge current? Yes
2. Battery circuit output current? Yes
3. Battery discharge? Yes
4. Bus voltage? Yes

- c. Does the unit have written procedures for response to the above alarms and indications? Yes



NINE MILE POINT UNIT 2

4. Does this unit have indication of bypassed and inoperable status of circuit breakers or other devices that can be used to disconnect the battery and battery charger from its dc bus and the battery charger from its ac power source during maintenance or testing? No
The need for this provision will be evaluated in the NMP2 IPE submittal.
5. If the answer to any part of question 3 or 4 is no, then provide information justifying the existing design features of the facility's safety-related dc systems. *See note below.
6. (1) Have you conducted a review of maintenance and testing activities to minimize the potential for human error causing more than one dc division to be unavailable? Yes and (2) do plant procedures prohibit maintenance or testing on redundant dc divisions at the same time? Yes

If the facility Technical Specifications have provisions equivalent to those found in the Westinghouse and Combustion Engineering Standard Technical Specification for maintenance and surveillance, then question 7 may be skipped and a statement to that effect may be inserted here. Yes. As shown in Technical Findings for Proposed Integrated Resolution of Generic Issue 128, Electric Power Reliability (NUREG CR-5414)

7. Answer not required as provided above.
8. Does this plant have operational features such that following loss on one safety-related dc power supply or bus:
 - a. Capability is maintained for ensuring continued and adequate reactor cooling? Yes
 - b. Reactor coolant system integrity and isolation capability are maintained? Yes
 - c. Operating procedures, instrumentation (including indicators and annunciators), and control functions are adequate to initiate systems as required to maintain adequate core cooling? Yes
9. If the answer to any part of question 6, 7 or 8 is no, then provide your basis for not performing the maintenance, surveillance and test procedures described and/or the bases for not including the operational features cited. *See note below.

*Note: For questions involving supporting type information (question numbers 5 and 9) instead of developing and supplying the information in response to this letter, you may commit to further evaluate the need for such provisions during the performance of your individual plant examination for severe accident vulnerabilities (IPE). If you select this option, you are required to:

- (1) So state in response to these questions, and
- (2) Commit to explicitly address questions 5 and 9 in your IPE submittal per the guidelines outlined in NUREG-1335 (Section 2.1.6, Subitem 7), "Individual Plant Examination: Submittal Guidance."

Per (2) above, Niagara Mohawk will address question 5 in the NMP2 IPE submittal in accordance with the guidelines outlined in NUREG-1335.



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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of]
Niagara Mohawk Power Corporation]
Nine Mile Point Unit 1 and 2)]

Docket Nos. 50-220
50-410

C. D. Terry, being duly sworn, states that he is Vice President, Nuclear Engineering 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. D. Terry
Vice President
Nuclear Engineering

Subscribed and sworn to before me, a Notary Public in and for the State of New York and County of Onondaga, this 21st day of October, 1991.



Notary Public in and for
Onondaga County, New York

DIANE R. KIMBALL
Notary Public in the State of New York
Qualified in Onondaga County No. 4933503
My Commission Expires May 31, 1992

My Commission Expires: 5/31/92



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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
October 16, 1991

Docket No. 50-220

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

Dear Mr. Sylvia:

SUBJECT: POTENTIAL FOR SIMULTANEOUS WITHDRAWAL OF TWO CONTROL RODS AT NINE MILE POINT NUCLEAR STATION UNIT NO. 1 (TAC NO. A81825)

Approximately one year ago the NRC staff became aware of the potential for inadvertent simultaneous withdrawal of two control rods in the Oyster Creek and Nine Mile Point Unit 1 reactors. Oyster Creek had observed the simultaneous withdrawal of two control rods on December 16, 1989, and had performed a 10 CFR 50.59 evaluation of this situation which the NRC staff audited. While we found the Oyster Creek analysis to be correct, we considered reliance on operator action to meet the FSAR design basis for control rod withdrawal from low power and control rod drop safety analyses inadequate for long-term resolution to this problem. Therefore, although we permitted reliance on operator action until the end of the then-current fuel cycle, we required Oyster Creek to revise the control rod selection circuitry to provide more positive protection against simultaneous withdrawal of two control rods during its next refueling outage.

Our concerns regarding this issue were expressed to Mr. Brian Wolken, of your staff, on August 30, 1990. Although as an interim measure Nine Mile Point 1 instituted procedural controls to preclude the simultaneous withdrawal of two control rods, we understand that as a final solution a modification similar to the Oyster Creek modification is being considered for implementation at Nine Mile Point 1 to ensure compliance with the plant licensing basis. The foregoing information has been discussed with Mr. Nick Spagnoletti of your staff. A copy of our safety evaluation regarding the simultaneous withdrawal of two control rods at Oyster Creek is enclosed for your information.

We request that within 30 days of receipt of this letter, you respond and provide us with a description of your plans and schedule for implementing your proposed modification for resolving this issue at Nine Mile Point Unit 1.

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