Mr. John H. Mueller
Chief Nuclear Officer
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
Operations Building, Second Floor
P.O. Box 63
Lycoming, NY 13093

March 19, 199[illegible]

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING INDIVIDUAL PLANT EXAMINATION OF EXTERNAL EVENTS, NINE MILE POINT NUCLEAR STATION UNIT NO. 1 (TAC NO. M83645)

Dear Mr. Mueller:

The NRC staff, with assistance from Brookhaven National Laboratories, is reviewing your submittal of August 29, 1996, regarding the Individual Plant Examination of External Events performed in accordance with Generic Letter 88-20, Supplement 4, for Nine Mile Point Nuclear Station, Unit 1 (NMP1). We find that additional information is necessary to complete our review.

Your response to the enclosure is requested within 60 days of this letter to support our current review schedule. If you have questions regarding the enclosure or are unable to meet the requested response date, please contact me by phone at (301) 415-3049 or by e-mail at dsh@nrc.gov.

Sincerely,

ORIGINAL SIGNED BY:

Darl S. Hood, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-220

Enclosure: Request for Additional Information

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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Division of Reactor Projects - I/II
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cc:

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5. Please describe the method for generating the IPEEE in-structure response spectra, and include some spectra that have been used for the component high-confidence-of-low-probability-of-failure (HCLPF) calculations. Please also provide spectral comparisons between the IPEEE review-level-earthquake (RLE) input and the original design basis input.

   Please provide detailed HCLPF calculations for battery boards 11 and 12, containment spray raw water pumps, the battery racks, and masonry block walls #23, #27 and #53.

High Winds, Floods, and Other External Events

6. NMP1 does not meet the criteria in the 1975 Standard Review Plan for floods. Therefore, according to NUREG-1407, the hazard frequency must be shown to be acceptably low (the probability of flooding any safety-related equipment is to be less than 1E-6 per year), or a flood probabilistic risk assessment (PRA) should be performed. The maximum water height for which no safety-related equipment will be failed is not explicitly given (although the grade level is given as 261 feet). Nor is any estimate given of the frequency of exceeding whatever water level the plant can withstand without failure of any safety-related equipment. Please provide a determination of the maximum flood water level which will not fail any safety-related equipment, and estimate the frequency of exceeding this flood water level. Alternatively, provide a PRA for the flood hazard.

7. The revised probable maximum precipitation criteria given in hydrometeorological reports HMR-51 and HMR-52 were used to calculate a flood depth of 262.85 feet. Because the diesel generators will fail if flooding in the turbine building reaches 261'5", further analysis is required to determine if the plant can withstand a probable maximum precipitation event. Your submittal appears to argue that the water in the turbine building would first go to lower elevations in the building, and by the time the water level would reach 261'5", the water level outside the buildings would have subsided. However, no calculations are presented to justify this conclusion. Please provide calculations to justify this conclusion. Also, what are the consequences of water levels less than 261'5" in the turbine building?

REQUEST FOR ADDITIONAL INFORMATION
REGARDING INDIVIDUAL PLANT EXAMINATION OF EXTERNAL EVENTS
NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT NUCLEAR STATION UNIT NO. 1
OPERATING LICENSE NUMBER DPR-63
DOCKET NO. 50-220

Seismic

1. According to EPRI NP-6041-SL, "a preferred success path and an alternate success path based on operational and systems considerations" should be identified for seismic margin assessment, and "at least one of these paths must be able to cope with a small, seismically induced leakage unless such leakage can be ruled out by walkdown." (p. 3-1)

   Although two success paths are identified in the NMP1 IPEEE submittal, the equipment in only one path was included in the safe shutdown equipment list (SSEL) for seismic margin assessment. The reasons given in the submittal to exclude the other path from evaluation include statements that the systems in the path are "unlikely to support success during LOCA conditions" and that "the additional effort involved in demonstrating low probability of no LOCA could be significant and may not be successful." Your position is not consistent with the EPRI NP-6041-SL guidelines quoted above. According to the guidelines, one should select two paths, with both paths able to cope under no LOCA condition, but only one of them needs to cope with a small LOCA. Therefore, both NMP1 success paths are needed to meet the EPRI NP-6041-SL guidance.

   Please expand the SSEL to include the equipment in the second success path and provide information on the results of a seismic margin evaluation of the expanded list.

2. Table 7-1 of the NMP1 IPEEE submittal lists a number of plant improvements that were slated for implementation in the spring of 1997 during refueling outage 14. Please provide the current status of these improvements.

3. The Cardox system mercury relays are known to be poor performers during seismic events and could inadvertently actuate fire protection systems. Table 7-1 of the NMP1 IPEEE submittal calls for replacement of these relays or a procedure change. Please clarify the final resolution for these mercury relays. If a procedure change has been or will be implemented, please identify the specific operator actions involved and discuss the timing, stress, access and environmental concerns associated with operator actions following a seismic event.

4. Please discuss the reliability of operator initiation of the Automatic Depressurization System after it has been manually disabled early in the accident. You state that such reliability would be high because the operators have disabled the system previously, and thus, they would be cognizant of its status. However, there are issues of stress, timing, multiple demands on operator attention, etc., that are not discussed. Please verify that such issues have been properly considered and that such operator action will indeed be executed with high reliability.

Enclosure