REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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FACIL:50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe 05000220
AUTH.NAME AUTHOR AFFILIATION
DISE,D.P. Niagara Mohawk Power Corp.
RECIP.NAME RECIPIENT AFFILIATION
GAMMILL,W.P. Assistant Director for Standard & Advanced Reactors

SUBJECT: Forwards addl info re station electrical distribution sys, per NRC 791015 request.Addl deviations from NRC guidelines have not been found.Onsite distribution sys test should not be necessary.

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NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

December 7, 1979

Director of Nuclear Reactor Regulation
Attn: Mr. W. P. Gammill,
Acting Assistant Director
Operating Reactor Projects
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Gentlemen:

During our meeting of October 15, 1979, members of your staff requested additional information on the station electric distribution system. The attachment to this letter addresses your request.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

Donald P. Dise

Donald P. Dise
Vice President-Engineering

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7912180547

NINE MILE POINT UNIT 1
DEGRADED GRID VOLTAGE/ONSITE DISTRIBUTION SYSTEM

The following additional information is provided in clarification of our October 3, 1979 response regarding degraded grid voltage. Specifically, Enclosure 2 to your August 8, 1979 letter suggested that consideration be given to starting of large non-safety related loads under degraded grid conditions.

During 1974, analysis and testing was performed to demonstrate start-up of a feedwater string with power from a single generator at our Bennetts Bridge hydro station. This included a sequenced start of a 1000 horsepower condensate pump, a 1500 horsepower feedwater booster pump and a 2500 horsepower feedwater pump (largest motor at Nine Mile Point Unit 1). The test results showed start-up times of 1.6, 1.7 and four (4) seconds respectively. This condition represents a more severe condition than if the 115 KV offsite power grid were under minimum voltage conditions and full load on the station reserve supply. Start-up times under these conditions would be less than the four (4) seconds stated above.

During the 1977 refueling outage, undervoltage relays were installed for protection against a degraded grid condition. Since there is a ten (10) second time delay at 3150 volts associated with these relays and the starting time of the largest motor is less than four (4) seconds, the relay would respond but reset without initiating a transfer of engineered safeguards to onsite power (diesel generators).

We have re-reviewed our calculations with respect to your guidelines and have found no other deviations. In light of the above information, a test of the onsite distribution system is not necessary as stated in our response of October 3, 1979.