NIAGARA MOHAWK

NMP-1072

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

December 1, 1978

Mr. George H. Smith, Chief
Fuel Facility and Materials Safety Branch
United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA. 19406

RE: Docket No. 50-220
Inspection Report 78-15

Dear Mr. Smith:

This refers to the inspection conducted by Dr. M. Shanbaky of your office on Septeber 25-29, 1978, at the Nine Mile Point Nuclear Station Unit #1. The following responses are submitted to the alleged items of non-compliance as detailed in Appendix A of your letter dated November 9, 1978:

A. Section 3.2 and Table 3.2 of Appendix B (ETS) require, in part, that water samples from the Nine Mile Point Unit 1 intake, James A. FitzPatrick plant intake, and Oswego City water intake shall be collected and analyzed on a monthly basis for gamma emitters by germanium lithium detector spectroscopic analysis.

Contrary to these requirements, the analyses of the monthly lake water samples from the Nine Mile Point Unit 1 intake, the James A. FitzPatrick intake, and Oswego City water intake were inadequate in that the relatively high radiation background in the sample counting area, resulted in erroneous analytical results for several of months in 1977, including January, February, March, April, May, June, and July.

RESPONSE

This item was identified by the licensee and subsequently reported in the 1977 Annual Environmental Operating Report. The applicable section of that report is presented below. Corrective action had been effectively achieved by August of 1977, therefore, full compliance has been achieved. This was pointed out by the inspector during the course of the exit critique.

RESPONSE TO ITEM A (continued)

From Page 2 of the Annual Environmental Operating Report:

6) Lake Water - Tables 6, 6A, 6B

The gross beta, tritium and strontium results are presented in Table 6. Gamma isotopic results are presented in Table 6A and pH and solids data is presented in Table 6B. Preparation of samples in the plant labs and counting of samples after high concentration reactor water and in plant air samples were counted resulted in poor analytical sensitivities. Use of the environmental lab for sample preparation, counting on a clean GeLi system, and upgraded management control contributed to more valid analyses beginning with the August composite.

B. Section 6.8.1 of the Technical Specifications requires, in part, that written procedures and administrative policies shall be established, implemented, and maintained. Plant Operating Procedures No. N1 OP-19 requires in part that, prior to the plant flow reversal, the station load be reduced to 75% capacity by adjusting reactor recirculation flow. Section 2.1.5, ETS requires, in part, that following a flow reversal, the discharge temperature shall not exceed the ambient lake temperature by more than 50°F two hours following flow reversal and thereafter.

Contrary to these requirements, prior to a flow reversal on January 3, 1978, the station load was not reduced to 75% capacity and during the flow reversal period on January 3 and 4, 1978, the discharge temperature exceeded the ambient lake temperature by more than 50°F for seven hours during the period from 2300 hours on January 3 through 0500 hours on January 4.

RESPONSE

Plant Operating Procedure N1-OP-19 addresses flow reversal operation of the circulating water system, which is used to prevent the station from interrupted cooling water flow, during icing at the intake structure. The flow reversal operation requires rapid operator action to reduce reactor power and to manipulate gates in the screenhouse; the reduction to 75% reactor power is a guide for the operator which gives him a projected heat load for which the flow reversal operation can be conducted smoothly and successfully. The 75% level was not intended to be the exact point from which all operations had to initiate. The main parameter which will determine how much power can be reduced is the type of ice formation at the intake structure. Frazile ice forms rapidly with little warning whereas slush ice is more predictable and normally affords more time for reaction.

The Operating Procedure will be changed to reflect that the required power level for flow reversal is a guide value; full compliance will be achieved by January 1, 1979.

RESPONSE TO ITEM B (continued)

The discharge temperature exceeding the lake ambient temperature by more than 50°F after two hours following flow reversal has been previously reported in Licensee Event Report LER 78-01.

C. Section 5.5.1 of the Appendix B (ETS) requires, in part, that detailed written procedures including applicable checklists and instructions be prepared and followed for all activities involved in carrying out the environmental monitoring program. Procedures include sampling, data recording and storage, instrument calibration, measurements, and analyses. Site procedure No. S-RTP-29, "Radiation Protection Technical and Analytical Procedures", requires, in part, that the environmental station radiation monitors shall be calibrated semi-annually. Section 3.2 (Table 3.2) of the ETS requires, in part, that gamma dose be continuously monitored by radiation monitors at nine onsite and one offsite locations.

Contrary to the above, one of the required onsite environmental station radiation monitors (location J) was not calibrated semi-annually during the period from July 12, 1977 to March 15, 1978.

RESPONSE

Calibration of the environmental radiation monitors has been added to the master surveillance schedule. This schedule, in conjunction with the "tickler file" used by the technical staff, will prevent reoccurrence of this item. Therefore, full compliance has been achieved.

D. Section 2.1.1 of Appendix B (ETS) requires, in part, that maximum ΔT across the main condenser during normal station operation shall be limited to 32°F. If during normal station operation the main condenser ΔT exceeds 32°F for a period of eight hours in any given 24 hour period, the cause of this deviation shall be investigated and positive action shall be taken to reduce the ΔT to within the Specification. The temperatures at the main condenser inlet and in the screenwell bay (upstream from the discharge tunnel) shall be monitored by two RTD's in each location. The difference of these temperatures, ΔT_1, shall be computed. A ΔT_1 of 31.2°F corresponds to the ΔT Specification of 32°F, because of the water in the screenwell bays is a mixture of main condenser cooling water and service water.

Contrary to these requirements, the ΔT_1 exceeded 31.2°F for nine hours on March 5, 1978, and positive action was not taken to reduce the ΔT to within the Specification.

RESPONSE

Section 2.1.1 of Appendix B (ETS) allows for exceeding a ΔT of 31.2°F for a period of eight hours in any given 24-hour period. The underlined portion of the specification clearly states a period of eight hours and not eight one hour periods. The hourly computer printout shows that the limiting ΔT was exceeded only for a maximum of four consecutive hours and, therefore, the specification was not exceeded.

RESPONSE TO ITEM D (continued)

It should be further noted that the positive action required by the specification to bring the ΔT within the limit was clearly not necessary on March 5, since the ΔT was within the required specification for 15 of the 24 hours and most importantly, reactor power and electric output remained constant and thus the heat rejection to the condenser and therefore to the circulating water was not changed during this 24 hour period.

The deviation from the maximum ΔT was from .1 to .75°F and the average ΔT for the entire days was 30.29°F. A check of computer data on other days in this time period at the same reactor power shows the ΔT to be consistent with the average for March 5th.

It is assumed that a problem existed in the computation program during this period which caused erroneously high ΔT readings; this is further substantiated by the fact that when the limiting ΔT's are mathematically calculated, the resulting ΔT's are lower and in fact only 7 hourly ΔT's exceed the 31.2°F limit. Full compliance has been achieved.

E. Section 5.6.3 of Appendix B (ETS) requires, in part, that in the event a Specification limit or a report level is exceeded, a report shall be made within 24 hours by telephone, telegraph, or facsimile transmission to the Director of the NRC Regional Office, followed by a written report within 10 days to the Director of the Regional Office (with a copy to the Director, Office of Nuclear Reactor Regulation).

Contrary to these requirements, neither a telephone nor a written report were made and submitted to the NRC as required when the Specification thermal discharge limit was exceeded on March 5, 1978.

RESPONSE

The requirement to submit a report in accordance with Section 5.6.3 of Appendix B (ETS) does not apply to the thermal discharge on March 5, 1978 since the specification was not exceeded (see Paragraph D).

Very truly yours,

T.E. Lempges
General Superintendent
Nuclear Generation
for R.R. Schneider
Vice President -
Electric Production

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