

August 29, 1984

Mr. Thomas T. Martin, Director
Division of Engineering and Technical Programs
United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Re: Docket No. 50-220
Inspection Report 84-10

Dear Mr. Martin:

This refers to the routine inspection conducted by Mr. James Hawxhurst of your staff on June 11-15, 1984, at Nine Mile Point Unit #1, Scriba, New York of activities authorized by NRC License No. DPR-63, and to the discussions of your findings held by Mr. Hawxhurst with Mr. T. J. Perkins of our staff at the conclusion of the inspection.

ITEM A

The environmental surveillance requirements (3.1) for meteorological monitoring states in part: "The meteorological monitoring system shall measure parameters as prescribed by Table 3.1-1..." Table 3.1-1 indicates the accuracy requirements for the temperature difference measurements, as $\pm 0.2F^{\circ}$ (at 200-27 feet).

Contrary to the above on October 13, 1983 and April 14, 1984 (the last two semi-annual calibrations) temperature differences at 200-27 feet deviated by $-1.29F^{\circ}$ and $+1.45F^{\circ}$ respectively, which greatly exceeded the above requirements.

RESPONSE

The last two consecutive Site Meteorological Temperature/Delta Temperature calibrations have resulted in reportable findings (ie-delta temperature readings were greater than $0.2F^{\circ}$). The records for these calibrations have been examined and the following findings have been identified as probable causes of the calibration errors. This calibration is performed using simultaneous sensor immersion (Base and Delta Temperature sensors) in ice and warm baths, respectively.

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The equipment manufacturer, Teledyne Geotech was contacted to assist in the investigation of the problem. One item the manufacturer recommended checking was the stability of the calibration heat sinks (baths).

Instability of the warm bath has been identified as the major cause of the calibration errors. As a result, inaccurate calibration results were obtained. The calibration method has been examined to determine and insure its prudency. In response to findings, the procedure has been revised to insure that the stability of the warm bath is adequately maintained to prevent recurrences. Also, the procedure has been revised to clarify the collection of data and identification of values which have exceeded acceptable limits. Personnel involved with the activity have been reinstructed as to the importance of consistent work practices and data collection.

As of this date, other factors which represent potential sources for calibration errors have been or are being studied and evaluated to determine their significance. Subsequent reports will be written should any of these factors be found to have significant effect on the calibration(s). The procedural method prescribed for the calibration has been tested by the performance of a calibration/recalibration. The second performance of this procedure produced acceptable, in-tolerance "as found" results.

In addition, consideration is being given to the adequacy of the calibration apparatus (test equipment) as well as the long term stability of the hardware. Procedural changes will be made as necessary, should the need arise as a result of the actions taken thus far or in the future. The adequacy of the corrective actions will be verified by the normal, full calibration to be performed in October 1984. It is believed that complete resolution of this violation and compliance with the Technical Specifications will be achieved by that date.

As per the telephone conversation between Mr. T. Chwalek of our staff and Mr. J. Hawxhurst of your staff on August 28, 1984, the response concerning Appendix B items is being formulated and will be forwarded to you by October 1, 1984.

Very truly yours,

C. V. Mangan

C. V. Mangan
Vice President

Nuclear Engineering & Licensing

RGR/jkr