NIAGARA MOHAWK

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CARL D. TERRY
Vice President
Nuclear Engineering

April 10, 1995
NMP2L 1538

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

RE: Nine Mile Point Unit 2
Docket No. 50-410
NPF-69

Subject: ***Proposed License Amendment - Uprated Operation, Equipment Qualification***

Gentlemen:

In a letter to the Nuclear Regulatory Commission (NRC) dated July 22, 1993 (NMP2L 1397), Niagara Mohawk Power Corporation (NMPC) proposed a license amendment to allow Nine Mile Point Unit 2 (NMP2) to operate at an uprated power of 3467 megawatts thermal. During the course of the Staff's review of this proposed license amendment, the NRC has determined that additional information regarding equipment qualification, as identified in a telephone conference with NMPC on April 7, 1995, is required to complete its review of this matter. Attached to this letter is the requested additional information.

Niagara Mohawk has provided a copy of this response to the appropriate state representative.

Very truly yours,

C. D. Terry
Vice President - Nuclear Engineering

CDT/KWK/lmc
Attachment

xc: Regional Administrator, Region I
Mr. B. S. Norris, Senior Resident Inspector
Mr. L. B. Marsh, Director, Project Directorate I-1, NRR
Mr. G. E. Edison, Senior Project Manager, NRR
Ms. Donna Ross
Division of Policy Analysis and Planning
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ATTACHMENT

Request for Additional Information

Enclosure 3 of NMPC's proposed power uprate license amendment, dated July 22, 1993, is the General Electric (GE) Topical Report, NEDC-31994P entitled "Power Uprate Licensing Evaluation for Nine Mile Point Nuclear Power Station Unit 2, Revision 1, May 1993." Section 10.3 entitled "Equipment Qualification" of the above GE Topical Report discusses qualification of equipment inside (Section 10.3.1.1) and outside (Section 10.3.1.2) containment and qualification of non-metallic components of mechanical equipment (Section 10.3.2). For these three categories of equipment, NMPC has stated in its July 22, 1993 letter that evaluation of equipment qualification is ongoing. In addition, NMPC stated that qualification of equipment would be resolved by refined calculations (location specific) and/or by slightly reduced qualified life.

The Staff has requested additional information regarding the status of the ongoing evaluation of equipment qualification as discussed in Section 10.3 of the above referenced GE Topical Report.

Response

Niagara Mohawk has completed its evaluation of equipment qualification. This evaluation incorporated the proposed power uprate that is being implemented at the fourth refueling outage, which is currently in progress.

Specifically, the qualification of equipment inside and outside containment and the qualification of non-metallic components of mechanical equipment was evaluated considering thermal, pressure and radiation parameters during normal and accident conditions. This evaluation demonstrates that no replacements or modifications to equipment are required prior to startup from the fourth refueling outage. The impact of these parameters on equipment qualification is discussed below.

Equipment qualification radiation doses are insignificantly affected by the power uprate. Virtually all the calculated radiation doses increase by approximately 1.36% due to power uprate for both the normal and accident conditions. In a very small number of cases, increases of slightly more than 1.36% have been calculated for normal operation. However, in all cases the equipment qualification limits were not exceeded. Therefore, the previously defined normal and accident qualified radiation lifetimes for equipment are unaffected by power uprate.

For thermal and pressure accident considerations, the initial reactor vessel dome pressure for the primary containment analysis has not changed due to power uprate. The containment performance analysis used a dome pressure of 1040 psig at a power level of 3467 MWt (i.e.,

104.3% of the current rated power). The revised containment performance analysis also uses a dome pressure of 1040 psig for 3536 MWt (i.e., 102% of the uprated power). Therefore, the previously defined qualified thermal and pressure accident limits are unaffected by power uprate.

Normal pressure conditions are not used in calculating qualified life. However, for normal operating uprate conditions, due to a 15 psig increase in operating dome pressure there is a slight temperature increase which will affect certain qualified lifetimes. For virtually all equipment, the qualified lifetime is unaffected by the power uprate. In a very small number of cases for power uprate, the qualification lifetime of equipment has been reduced so that the earliest expiration date of equipment occurs at 2006. This is one year earlier than previously scheduled. Therefore, as previously planned, the preventative maintenance program will be modified prior to restart from the fifth refueling outage to ensure the replacement of equipment prior to expiration of its qualified lifetime.