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Richard B. Abbott  
Vice President  
Nuclear Engineering

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NMP2L 1888

Phone: 315.349.1812  
Fax: 315.349.4417

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:** *Request for Additional Information Regarding Improved Technical Specification (ITS) Section 3.7 for the Nine Mile Point Nuclear Station, Unit No. 2 (TAC No. MA3822)*

Gentlemen:

Niagara Mohawk Power Corporation (NMPC) transmitted an Application for Amendment regarding conversion of the Nine Mile Point Unit 2 (NMP2) Current Technical Specifications (CTS) to the ITS by letter dated October 16, 1998 (NMP2L 1830). Subsequently, by letter dated May 10, 1999, the NRC requested additional information pertaining to our Application for Amendment. The Staff requested information regarding several Sections, including Section 3.7, Plant Systems. Specifically, Request for Additional Information 3.7.2-2 was provided by the Staff regarding Control Room Envelope Filtration.

Attached to this letter is the required NMPC response.

Very truly yours,

Richard B. Abbott  
Vice President - Nuclear Engineering

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Attachment

xc: Mr. H. J. Miller, NRC Regional Administrator, Region I  
Mr. S. S. Bajwa, Section Chief PD-I, Section 1, NRR  
Mr. G. K. Hunegs, NRC Senior Resident Inspector  
Mr. D. S. Hood, Senior Project Manager, NRR  
Mr. John P. Spath  
NYSERDA 270007  
286 Washington Avenue Ext.  
Albany, NY 12203-6399  
Records Management

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3.7.2-2 ITS 3.7.2 LCO Bases, Control Room Envelope Filtration (CREF)

**Comment:** *The Bases section has been modified to correlate the operability of the outside air vents to main steam valve leakage rates. This is not part of the CTS. Further, the leakage rate specified in the Bases is inconsistent with the leakage rate of ITS SR 3.6.1.3.12. If two vents are required at 15 scfh of leakage, that should be specified in a specification. Additionally, if two vents are required under certain circumstances, how is that consistent with FSAR Section 9.4.1.2 which describes each vent as having 100% capacity? Finally, the Bases discusses "effective" MSIV leakage, a term which is not defined in the ITS and does not exist in the CTS.*

**NMPC Response:**

Current Technical Specification (CTS) Limiting Condition for Operation 3.7.3 requires two control room outdoor air special filter trains (CROASFTs) to be OPERABLE. The OPERABILITY of the CROASFTs requires the OPERABILITY of one or both outside air vents, since CTS 1.27, the definition of OPERABILITY, requires the CROASFTs to be capable of performing their specified safety function. Since CTS 3.7.3 does not specifically state the actual number of outside air vents that are required, Nine Mile Point Unit 2 (NMP2) uses the definition of OPERABILITY in CTS 1.27 to determine the actual number required. Therefore, determining the number of required outside air vents based on the actual Main Steam Isolation Valve (MSIV) leakage is effectively part of the CTS.

The offsite dose calculations assume leakage through each MSIV is  $\leq 24$  standard cubic feet per hour (scfh). Therefore, CTS Surveillance Requirement (SR) 4.6.1.2.2 and Improved Technical Specification (ITS) SR 3.6.1.3.12 require leak rate testing to be performed on the MSIVs to ensure MSIV leakage is  $\leq 24$  scfh to ensure the 10 CFR 100 limits are not exceeded. However, MSIV leakage can also affect the amount of dose the control room personnel receive during an accident.

Normally, either outside air intake can be used to provide makeup air to the control room envelope, since each outside air intake can provide 100% of the makeup air needed to maintain the control room envelope pressurized. The 100% capacity to which the Updated Safety Analysis Report (USAR), Section 9.4.1.2 is referring is this control room pressurization capability of the outside air intakes. The outside air intake is assumed to be in the radiation exposure pathway plume, thus the outside air makeup is contaminated air from the plume. However, this outside air makeup is filtered prior to it entering the control room envelope. With the MSIV leakage  $\leq 15$  scfh for all MSIVs, the dose the control room personnel receive will not exceed the dose assumed in the control room dose calculations regardless of which control room intake is used (i.e., the licensing basis control room dose calculations performed to ensure 10 CFR 50, Appendix A, GDC 19 requirements are not exceeded). If the leakage from any MSIV is  $> 15$  scfh, then there is a potential for the control room personnel to receive a dose in excess of the licensing basis limit if the outside air intake in the radiation exposure pathway plume is used to provide the makeup air.



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The two MSIV leakage limits, 15 scfh and 24 scfh, are associated with two separate dose calculations, performed to ensure two different CFR requirements are met. In addition, since the 15 scfh limit is only used in determining the number of outside air intakes needed, and the philosophy of the Standard Technical Specifications is to maintain all details relating to what constitutes an OPERABLE subsystem in the Bases, the ITS 3.7.2 LCO statement does not need to specifically describe when two outside air intakes are required. This is also consistent with the manner in which the CTS handles the outside air intake requirements. The Bases will be modified to more clearly state that normally only one outside air intake is needed, since each outside air intake is capable of providing 100% of the necessary makeup flow, and that under certain conditions (MODES 1, 2, and 3 with the "effective" MSIV leakage > 15 scfh), the accident analysis assumes the most contaminated outside air intake is isolated within 8 hours after the accident, thus two outside air intakes are needed to ensure the dose to control room envelope personnel does not exceed the limit. The remaining unisolated outside air intake continues to be capable of providing 100% of the necessary makeup flow.

In addition, as described in the Bases, under certain conditions, only one outside air intake is required even when the leakage through one or more MSIVs exceeds 15 scfh. If an analysis is performed that determines the "effective" MSIV leakage is  $\leq$  15 scfh, then only one outside air intake is required. The term "effective" is not described in the Bases. The "effective" MSIV leakage is the individual MSIV leak rate when all four main steam lines are assumed to leak at the same rate, and the doses in the control room are equivalent to those when the individual "as left" valve leak rates are used. The Bases will be clarified (Background Section) to define "effective" in order to provide a better understanding as to how the analysis is performed.

