

UNITED STATES NUCLEAR REGULATORY COMMISSION 50r410

WASHINGTON, D.C. 20555-0001

January 5, 1999

Mr. John H. Mueller Chief Nuclear Officer Niagara Mohawk Power Corporation Nine Mile Point Nuclear Station Operations Building, Second Floor Lycoming, NY 13093

SUBJECT: COMPLETION OF REVIEW REGARDING BULLETIN 96-03, "POTENTIAL PLUGGING OF EMERGENCY CORE COOLING SUCTION STRAINERS BY DEBRIS IN BOILING-WATER REACTORS," NINE MILE POINT NUCLEAR STATION, UNIT 2 (TAC NO. M96158)

Dear Mr. Mueller:

9902090313

On May 6, 1996, the U.S. Nuclear Regulatory Commission (NRC) issued Bulletin 96-03, "Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling-Water Reactors" to all holders of operating licenses or construction permits for boiling-water reactors (BWRs). The NRC issued Bulletin 96-03 to ensure that the emergency core cooling systems (ECCS) in BWRs can perform their intended safety function to mitigate the effects of a postulated loss-of-coolant accident. The Bulletin provided three options for resolving this issue including (1) installation of large capacity passive strainers, (2) installation of self-cleaning strainers, or (3) installation of a backflush system.

In Bulletin 96-03, the NRC staff specifically requested that licensees submit the following reports for each of their plants:

- 1. A description of planned actions and mitigative strategies to be used, the schedule for implementation, and proposed technical specifications, if appropriate.
- 2. A report confirming completion and summarizing actions taken.

In a letter dated November 4, 1996, Niagara Mohawk Power Corporation (NMPC) responded to Bulletin 96-03 for Nine Mile Point Nuclear Station, Unit 2 (NMP2), stating that NMPC planned to evaluate the adequacy of the existing NMP2 strainer design using the guidance in the Boiling Water Reactor Owners Group's document "Utility Resolution Guidance (URG) for Resolution of ECCS Suction Strainer Blockage." The NRC staff reviewed the URG and issued a safety evaluation on August 20, 1998. By letter dated January 6, 1999, NMPC informed the NRC staff that NMP2's strainer design, evaluated using the URG document, had been unsuccessful, and thus, during the 1998 refueling outage, NMPC replaced the strainers with new strainers designed by General Electric using the guidance provided in the URG. In the January 6, 1999, letter, NMPC further stated that all actions requested by Bulletin 96-03 are complete. These actions included:

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- 1. Inspecting and cleaning the suppression pool (in response to related Bulletin 95-02, I "Unexpected Clogging of a Residual Heat Removal (RHR) Pump Strainer While Operating in Suppression Pool Cooling Mode").
- 2. Issuing procedures and conducting training in foreign material exclusion practices (in response to Bulletin 95-02).

February 5,

3. Installing new large capacity strainers using the guidance provided in the URG (in response to Bulletin 96-03).

We have reviewed NMPC's response and have determined that the actions taken should | minimize the potential for clogging of ECCS suction strainers and ensure the capability of the ECCS to provide long-term cooling following a loss-of-coolant accident as required by 10 CFR 50.46. We note that General Electric's topical report NEDC-32721P, "Application Methodology for the General Electric Stacked Disk ECCS Suction Strainer" is still undergoing our review. Part I of our safety evaluation of the GE topical report was issued on February 3, 1999, approving GE's methodology for determining strainer head loss. However, the GE methodology for calculating strainer structural loadings due to hydrodynamic forces continues under staff review, and part II of our safety evaluation will be issued upon completion. However, we consider NMPC's actions for NMP2 responsive to the concerns raised in Bulletin 96-03 and no plant-specific concerns have been identified. Therefore, we are closing TAC No. M96158 which provided for our review of NMPC's response to Bulletin 96-03 for NMP2. If our further generic review of the GE topical report should determine the need for plant-specific information, that information would be requested under a separate TAC.

If you have any questions regarding this letter, contact me by phone on (301) 415-3049 or by electronic mail at dsh@nrc.gov.

Sincerely,

Darl S. Hood, Senior Project Manager Project Directorate I-1 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

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J. H. Mueller

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John H. Mueller Niagara Mohawk Power Corporation

CC:

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