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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

September 12, 1997

EA 96-079

Mr. B. Ralph Sylvia, Executive Vice President Generation  
Business Group & Chief Nuclear Officer  
Niagara Mohawk Power Corporation  
Nuclear Learning Center  
450 Lake Road  
Oswego, New York, 13126

Dear Mr. Sylvia:

This is a response to a July 16, 1996, letter, from Niagara Mohawk Power Corporation (NMPC), a transcribed public meeting held between NMPC and the Nuclear Regulatory Commission (NRC) at the NRC Headquarters offices on January 6, 1997, and a February 19, 1997, letter submitted by Winston & Strawn on behalf of NMPC. The subject of these letters and this meeting was the reportability of pressure relief panels on the Nine Mile Point, Unit 1 (NMP-1) reactor and turbine buildings being outside of their design basis<sup>1</sup>.

In October 1993, NMPC determined that oversized bolts (larger than specified in the plant's design) had been installed in the blowout panels for the reactor and turbine buildings. As a result, NMPC calculated that the blowout panels' relief function for both buildings exceeded the 45 pounds per square foot (psf)<sup>2</sup> as stated in the Final Safety Analysis Report (FSAR). Specifically, the NMP-1 FSAR provides in Section III.A.1. that the purpose of the Turbine Building blowout panels was to prevent failure of the superstructure due to steam line break. This pressure relief function is accomplished by a wall area of 1800 square feet being attached to the superstructure with bolts that will fail due to an internal pressure of

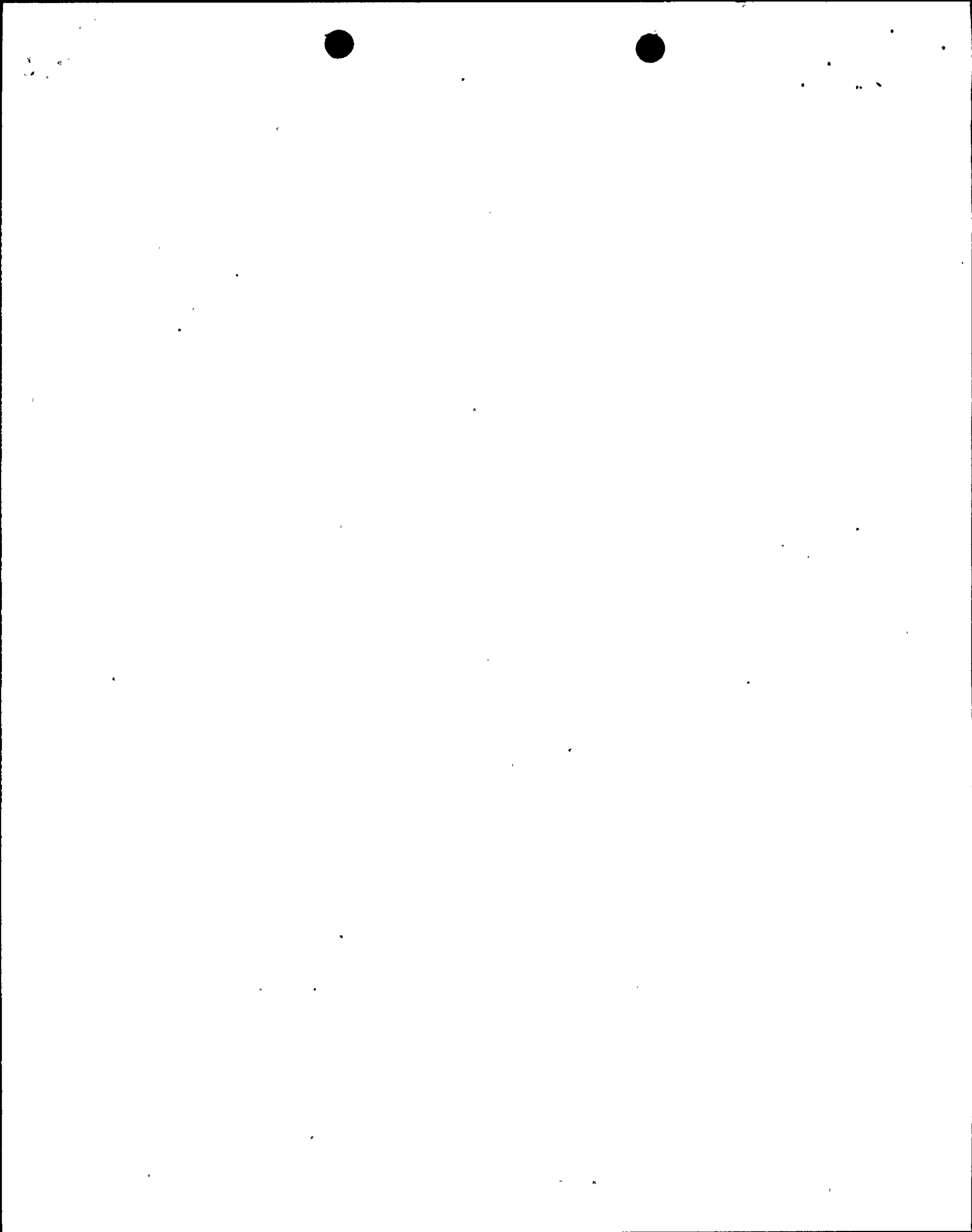
<sup>1</sup> This issue was originally cited as a single Severity Level IV violation of the requirements of 10 CFR 50.72 and 10 CFR 50.73 in a Notice of Violation (Notice) issued June 18, 1996. In a letter dated July 16, 1996, NMPC denied the violation (Violation II.B in the June 18, 1996, Notice). In a December 3, 1996, letter, the NRC informed NMPC that an adequate basis for the NRC to withdraw the violation had not been provided. Accordingly, the violation was not withdrawn.

<sup>2</sup> The blowout panels initiate the internal pressure relief function and prevent structural failure of the buildings. NMPC calculated the relief functions initiate at approximately 53 psf and 60 psf for the reactor and turbine buildings, respectively.

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approximately 45 pounds per square foot, thus relieving internal pressure. Wall or building structure failure would occur at an internal pressure in excess of 80 pounds per square foot.

Additionally, Section VI.B.1. states that pressure relief for the Reactor Building is provided to prevent collapse of the superstructure due to a break of an emergency cooling system, or other primary coolant system line in the reactor building. This pressure relief function is accomplished by a wall area of approximately 1800 square feet being attached to the superstructure with bolts that are designed to fail with an internal building pressure of approximately 45 pounds per square foot of wall area. Relief of pressure through this area in case of an energy release will prevent excessive internal pressure on the superstructure walls, roof and their supports which would fail at an internal pressure in excess of 80 pounds per square foot.

NMPC's contention is that the design bases for internal building pressure is only to provide pressure relief at or below 80 psf. However, the NRC concluded that the design bases include both the 80 psf building pressure relief and the 45 psf blowout panel pressure. The 45 psf blowout panel pressure provides the necessary margin to prevent the building's internal pressure from exceeding 80 psf. Absent the 45 psf blowout panel pressure or any other blowout panel pressure, the design bases of the buildings might not have been acceptable when previously reviewed by the NRC. Regardless of the acceptability of the blowout panel pressure, there should be no question that the blowout panel pressure was a technical consideration when evaluating the design bases; therefore, the NRC considers the blowout panel pressure to be part of the design bases. In general, the design bases include any information that was used to determine the acceptability of the nuclear power plant design. 10 CFR 50.2 defines design bases as follows:

*Design bases means that information which identifies the specific functions to be performed by a structure, system, or component of a facility, and the specific values or ranges of values chosen for controlling parameters as reference bounds for design. These values may be (1) restraints derived from generally accepted "state of the art" practices for achieving functional goals, or (2) requirements derived from analysis (based on calculation and/or experiments) of the effects of a postulated accident for which a structure, system, or component must meet its functional goals. (emphasis added)*



The NRC has concluded that the oversizing of the blowout panels' bolts affected all the blowout panels and, therefore, the entire function to be performed of protecting the buildings from superstructure damage in an overpressure condition. Further, the NRC determined that the blowout panel pressure of 45 psf establishes the reference for the acceptability of the facility's design.

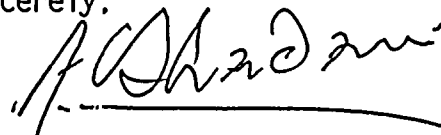
Therefore, based on our analysis, the NRC has concluded that this event was reportable. The description of this issue involving the blowout panels in the reactor and turbine buildings meets the reporting requirements of both 10 CFR 50.72(b)(1)(ii)(B) and 10 CFR 50.73(a)(2)(ii)(B), and, therefore, violations occurred.

Accordingly, the NRC has concluded that citations are warranted and is denying NMPC's request that the violation be withdrawn. Therefore, you are required to respond to the violation cited in the June 18, 1996, Notice, within 30 days of the date of this letter, by providing the corrective steps taken to avoid further violations.

The NRC recognizes the issues raised by NMPC concerning the undesirability of one hour reports for matters of relatively low safety significance. While overreporting information may, in certain circumstances, not be desirable, it is nonetheless important for the NRC to receive necessary information in a timely manner, in order to support decisions on actions pertaining to public health and safety. For that reason, the NRC would rather receive more information, reported pursuant to the requirements of 10 CFR 50.72, than less. However, the staff acknowledges that some information currently required to be reported within one hour may more appropriately be reported at a later time. In that regard, the staff is continuing to review this generic matter.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC's Public Document Room.

Sincerely,



Ashok C. Thadani  
Acting Deputy Executive Director  
for Regulatory Effectiveness

Docket No. 50-220  
License No. DPR-63

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cc:

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OE:EA (2)

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Nuclear Safety Information Center (NSIC)

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\*See previous concurrence

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*M. Rafferty  
J. Goldberg  
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*NLO subject  
to comments*  
*msg for H. Miller  
T. Walker*  
*msg for R. Zimmerman  
per comment*  
*msg for D. Ross  
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