

UNITED STATES
NUCLEAR REGULATORY COMMISSION

In the Matter of)

Niagara Mohawk Power Corporation)
Nine Mile Point, Unit 1)

) Docket No. 50-220
) License No. DPR-63
) EA 96-079

ORDER IMPOSING A CIVIL MONETARY PENALTY

I

Niagara Mohawk Power Corporation (Licensee) is the holder of Operating License No. DPR-63 (License), issued by the Nuclear Regulatory Commission (NRC or Commission). The License authorizes the Licensee to operate the Nine Mile Point Unit 1 nuclear facility in accordance with the conditions specified therein.

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An inspection of the Licensee's activities was conducted between February 17 and March 11, 1996. The results of this inspection indicated that the Licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the Licensee by letter dated June 18, 1996. The Notice states the nature of the violations, the provisions of the NRC's requirements that the Licensee had violated, and the amount of the civil penalty proposed for the violations.

The Licensee responded to the Notice in a letter dated July 16, 1996. In its response, the Licensee admitted the two violations assessed a civil penalty in Section I of the Notice, but requested that the penalty be mitigated. In addition, the Licensee denied the two violations in Section II of the Notice that were classified individually at Severity Level IV and not assessed a civil penalty. The Licensee provided a supplemental response, dated August 15, 1996,

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in which the Licensee subsequently admitted one of the Severity Level IV violations that it had denied in the July 16, 1996 response.

III

After consideration of the Licensee's response and the statements of fact, explanation, and argument for mitigation contained therein, the NRC staff has determined, as set forth in the Appendix to this Order, that the violations for which the civil penalty was proposed occurred as stated in the Notice, and that an adequate basis was not provided for mitigation of the civil penalty. Therefore, the penalty proposed for the violations designated in Section I of the Notice should be imposed.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The Licensee pay a civil penalty in the amount of \$50,000 within 30 days of the date of this Order, by check, draft, money order, or electronic transfer, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement; U.S. Nuclear Regulatory Commission, One White Plant North, 11555 Rockville Pike, Rockville, MD 20852-2738.



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The Licensee may request a hearing within 30 days of the date of this Order. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time must be made in writing to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and include a statement of good cause for the extension. A request for a hearing should be clearly marked as a "Request for an Enforcement Hearing" and shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission Washington, D.C. 20555, with a copy to the Commission's Document Control Desk, Washington, D.C. 20555. Copies also shall be sent to the Assistant General Counsel for Hearings and Enforcement at the same address and to the Regional Administrator, NRC Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the Licensee fails to request a hearing within 30 days of the date of this Order, or if written approval of an extension of time in which to request a hearing has not been granted, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the Licensee requests a hearing as provided above, the issues to be



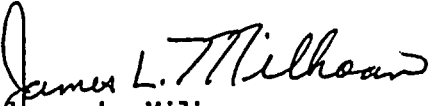
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be considered at such hearing shall be:

whether, on the basis of the violations set forth in Section I of the Notice that the Licensee admitted, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION


James L. Milhoan
Deputy Executive Director for
Nuclear Reactor Regulation,
Regional Operations and Research

Dated at Rockville, Maryland
this 3rd day of December 1996



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APPENDIX

EVALUATION AND CONCLUSION

On June 18, 1996, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of \$50,000 was issued to the Niagara Mohawk Power Corporation (licensee) for violations of NRC requirements. Two of the violations were classified in the aggregate at Severity Level III, and a \$50,000 civil penalty was proposed. Two other violations were classified individually at Severity Level IV. The licensee responded to the Notice on July 16, 1996, and admitted the two violations for which a penalty was proposed, but requested that the penalty be mitigated. The licensee also denied the two violations that were not assessed a penalty. In a supplemental response, dated August 15, 1996, the licensee admitted one of the Severity Level IV violations that it had denied in the July 16, 1996 response. The NRC's evaluation and conclusion regarding the licensee's requests are as follows:

1. Restatement of Violations

- A. Title 10 of the *Code of Federal Regulations*, Part 50, (10 CFR 50), Appendix B, Criterion III, "Design Control," requires that measures be established to verify the adequacy of design, such as by design reviews, alternate or simplified calculational methods, or suitable testing.

Nine Mile Point Unit 1 Updated Final Safety Analysis Report (UFSAR), Sections VI.C.1.2 and III.A.1.2, state that the reactor and turbine building pressure relief panels will blow out at 45 pounds per square foot (psf) to prevent failure of the building superstructures at an internal pressure in excess of 80 psf.

Contrary to the above, between October 1993 and March 1995, measures established failed to verify the adequacy of design for Unit 1 reactor and turbine building pressure relief panels to blow out at the specified pressures. Specifically, in October 1993, NMPC made an error in the assumptions for calculations regarding the installed, oversized bolts in the reactor and turbine building pressure relief panels. The error was not identified, during the review process, by either the independent engineering reviewer or approver. It was not recognized until March 1995 that the relief pressures were in excess of the designed blowout pressure of the superstructures. (01013)

- B. 10 CFR 50.59(a)(1), allows, in part, the holder of a license to make changes to the facility as described in the safety analysis report unless the proposed change involves an unreviewed safety question.

10 CFR 50.59(b)(1) requires, in part, the licensee to maintain records of changes in the facility, to the extent that these changes constitute changes in the facility as described in the safety analysis report. The records must include a written safety evaluation which provides the bases for the determination that the change does not involve an unreviewed safety question.



Nine Mile Point Unit 1 UFSAR Sections VI.C.1.2 and III.A.1.2 state that the reactor and turbine building pressure relief panels will blow out at 45 psf to prevent failure of the building superstructure at an internal pressure in excess of 80 psf.

Contrary to the above, from December 1969 to March 1995, the actual design configuration of the reactor and turbine building pressure relief panels was different from that described in the UFSAR, and Niagara Mohawk Power Corporation (NMPC) did not perform the required written safety evaluation to provide the bases for a determination that the deviation from the UFSAR description did not involve an unreviewed safety question. Specifically, in October 1993, NMPC identified that the wrong size bolts had been installed in the relief panels during initial construction. Calculations revealed that the reactor and turbine building pressure relief panels would not relieve until 53 and 60 psf, respectively. Subsequent calculations revealed that the panels would not relieve until the pressure was in excess of the superstructure design blowout pressure of 80 psf stated in the UFSAR, and the licensee neither performed the evaluation required by 10 CFR 50.59, nor did it undertake adequate corrective action to restore the facility to the licensing basis configuration as specified in the UFSAR. (01023)

This is a Severity Level III problem (Supplement I).
Civil Penalty - \$50,000

2. Summary of Licensee Response Requesting Mitigation of the Penalty

In its July 16, 1996 response, the licensee admitted the two violations for which the civil penalty was proposed and stated its belief that a civil penalty is not warranted. In support of this belief, the licensee noted that the deficiencies in the blowout panel construction do not represent a significant safety issue; the blowout panels would have functioned as designed to prevent failure of the building superstructures; and the panels would only function in the event of a high energy line break outside containment, a scenario that the licensee indicated is not considered a design basis event for NMP-1.

The licensee also expressed concern that the violations and civil penalty may be the result of applying a relatively recent regulatory position and philosophy to actions that occurred over three years ago. The licensee noted that it appears that the NRC is considering all statements and commitments in the UFSAR as "stand-alone" regulatory requirements, and has applied a new and restrictive interpretation to the definition of "margin of safety" terminology in 10 CFR 50.59. The licensee further notes that the plant condition was identified by its staff as a result of a proactive evaluation to resolve a minor discrepancy in the UFSAR.

The licensee further noted in support of its mitigation request that it had not been assessed a penalty since 1992; that it has demonstrated a proactive approach to safety; and, contrary to a statement in the NOV transmittal letter, that it took immediate actions to restore the pressure



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relief panels to a condition consistent with the UFSAR once the calculational error was discovered, and the NRC did not appear to give any credit for this.

3. NRC Evaluation of Licensee Response

The NRC has carefully considered the licensee's response and concludes that the licensee has not provided an adequate basis for mitigation of the civil penalty.

Although the licensee did not specifically contest the Severity Level classification of the two violations in Section I of the Notice, the licensee appears to take issue with that classification by indicating that the deficiencies in the pressure relief panel construction do not represent a significant safety issue. The NRC concedes that the pressure relief panels likely would have functioned as designed to prevent failure of the building superstructures¹, and the panels function only in the event of a high energy line break outside containment, which is not considered a design basis event for NMP-1. However, the NRC notes that the full resolution of this issue is still under the licensee's evaluation. Notwithstanding the result of that resolution, the NRC maintains that the two violations represent a significant regulatory concern and, therefore, were classified appropriately in the aggregate at Severity Level III.

In making this determination, the NRC considered the fact that this condition (the actual design configuration of the pressure relief panels was different from that described in the UFSAR) existed for approximately 26 years, without any written safety evaluation to provide the basis for a determination that the deviation from the UFSAR description did not involve an unreviewed safety question. A number of facts are most noteworthy: (1) the licensee identified, in October 1993, that the wrong size bolts (1/4-inch diameter, as opposed to the correct sized 3/16-inch diameter bolts) had been installed in the relief panels during initial construction, (2) the licensee's October 1993 evaluation of the wrong bolts utilized assumptions inconsistent with the assumptions described in the UFSAR² and (3) a subsequent review, in March 1995, of the evaluation performed in October 1993, revealed that the assumptions were incorrect

¹This NRC position is based on more recent licensee reviews performed after the enforcement conference, which determined that both the reactor and turbine buildings would be capable of withstanding internal pressures in excess of 100 psf without superstructure failure.

²The UFSAR description of the failure mode was the panel bolts shearing (one-way process analysis resulting in calculated failures of 94 psf and 92 psf for the reactor and turbine building, respectively). However, the licensee chose to analyze the panel relieving process by using a metal tearing failure mode (two-way process analysis resulting in calculated failures of 53 psf and 60 psf for the reactor and turbine building, respectively).

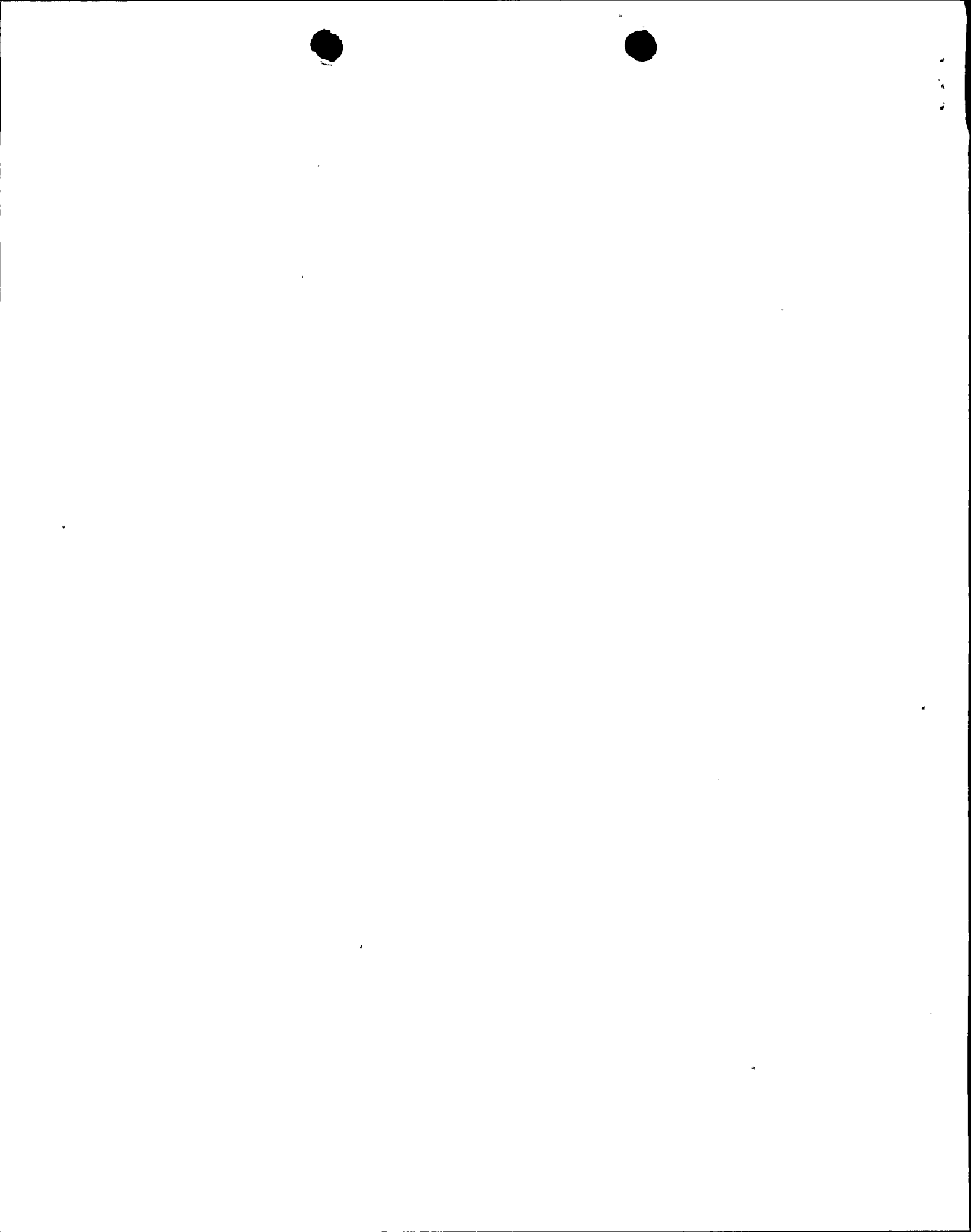


and that the panels would not relieve until the pressure was in excess of the superstructure design blowout pressure stated in the UFSAR (80 psf). Nonetheless, the licensee neither performed the required evaluation, nor undertook adequate corrective action to restore the facility to the licensing basis configuration as specified in the UFSAR. Given the length of time this condition existed, the inappropriate and inconsistent use of assumptions not described in the UFSAR, and the failure to promptly resolve and take appropriate action to address the issue of building overpressure when indications of a problem surfaced in 1993, the NRC contends that the violations represent a significant regulatory concern and were classified appropriately at Severity Level III.

With regard to the licensee's concern that the violations and imposition of a civil penalty may be the result of applying a relatively recent regulatory position and philosophy to actions that occurred over three year ago, Violations I.A and B involve the licensee's original construction installation of incorrect-sized bolts on the pressure relief panels, resulting in a change to the facility from that described in the plant's UFSAR, without preparing a written safety evaluation as required by 10 CFR 50.59. The NRC has always regarded such a change as requiring a written safety evaluation in accordance with 10 CFR 50.59. Thus, there has been no change in the NRC's interpretation of this requirement as it applies to the changes addressed in Violations I.A and B.

The NRC also acknowledges that this plant condition was identified by the licensee staff as a result of a proactive evaluation to resolve a discrepancy in the UFSAR, and the licensee has not been assessed a penalty since 1992. These factors were considered by the NRC as part of the civil penalty assessment process set forth in the NRC Enforcement Policy (NUREG-1600), as were the licensee's corrective actions. In addition, although the NRC acknowledges that the licensee took immediate actions to restore the pressure relief panels to a condition consistent with the UFSAR once the calculational error was discovered, the NRC maintains that no credit was warranted for these corrective actions. In October 1993, the licensee identified that the wrong bolts had been installed in 1969, and calculated the relief pressures to be 53 psf for the reactor building and 60 psf for the turbine building. This calculation was in error, and the relief pressures were actually in excess of 80 psf as the licensee identified in March 1995, at which time the licensee removed every other bolt to place themselves in a condition that the licensee believed was in compliance with the UFSAR. It was not until after being questioned by the NRC prior to the conference, that the licensee identified that the March 1995 calculations were also wrong. In addition, the calculations used to support the removal of every other bolt were flawed, yet the licensee, at the time of the enforcement conference, had not completed the evaluation required pursuant to 10 CFR 50.59 to change the UFSAR. Therefore, the NRC maintains that credit is not warranted for the licensee's corrective actions, which according to the Enforcement Policy, results in a civil penalty of \$50,000 being assessed. The NRC concludes that the penalty for this Severity Level III problem should not be mitigated.

4. Restatement of Violation II.B



10 CFR 50.72(b)(1)(ii)(B), requires, in part, that the licensee shall notify the NRC as soon as practical and in all cases within one hour of the occurrence of any event or condition, during operation, that results in the nuclear power plant, including its principal safety barriers, being seriously degraded or in a condition that is outside the design basis of the plant.

10 CFR 50.73(a)(2)(ii)(B) requires that the licensee shall submit a Licensee Event Report (LER) within 30 days of the discovery of any event or condition that results in the condition of the nuclear power plant, including its principal safety barriers being seriously degraded or in a condition that is outside the design basis of the plant.

Contrary to the above, in October 1993, NMPC did not notify the NRC within one hour of the discovery of a condition outside the design basis of the plant, nor did NMPC submit a LER within 30 days of discovery of a condition outside the design basis of the plant. Specifically, with the plant operating, NMPC determined that the actual blowout pressures of the reactor and turbine building pressure relief panels were in excess of the buildings' design basis pressures identified in the Unit 1 UFSAR, and NMPC failed to make and submit the required reports in the required time periods. (02024)

This is a Severity Level IV Violation (Supplement I).

5. Licensee Response Denying Violation II.B

The licensee, in disagreeing with this violation, noted that in October of 1993, the calculations associated with the oversized bolts in the blowout panels indicated that the reactor and turbine building panels would relieve at internal pressures of 53 and 60 psf, respectively, and the UFSAR indicated that the buildings' design basis pressure was in excess of 80 psf. The licensee, therefore, concluded that this situation was not reportable even though the calculated blowout pressures did exceed the 45 psf nominal value for bolt failure as indicated in the UFSAR.

The licensee stated that in reaching this conclusion, it considered the guidance in NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73," and various statements in the Federal Register (FR) related to the reportability rule. The licensee notes that NUREG-1022 provides an example where high energy line break restraints are not installed, but indicates that this would not be considered reportable if analysis shows that the particular missing restraints are not needed for compliance with the design basis. The licensee further indicates that the preamble to the final rule in the August 29, 1983, FR notes, in regard to this section of the rule, that "[i]t is not intended that this paragraph apply to minor variations in individual parameters or to problems concerning single pieces of equipment." The licensee also noted that an April 8, 1993 FR states: "Furthermore, the wording of the criteria and the guidance in the preamble to the final rule imply that this impact on plant safety should be at a fairly high level," and "Therefore, failure, specification problems, and loss of safety margins that apply to individual components



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are not reportable unless they effect the ability to satisfy plant safety functions³."

The licensee indicated that, based on the above guidance, it concluded in October of 1993 that the calculated blowout pressures of 53 and 60 psf for the reactor and turbine buildings, respectively, would still have the ability to satisfy the plant design basis. Specifically, the blowout panels would still protect the buildings' superstructure from failure, which was considered the plant design basis. The licensee contended that the 45 psf value is not considered the plant design basis for reportability considerations and none of the principle safety barriers was seriously degraded. Therefore, the licensee does not consider that this condition was reportable given the information available in October 1993, and therefore disagrees with this violation.

The licensee also notes that the description of the violation in the Notice of Violation, and particularly, the discussion of the violation in the transmittal letter, suggests that the NRC is applying a relatively recent regulatory position regarding the status of numerical values within the UFSAR. Specifically, the licensee states that it appears that the NRC is considering all statements and commitments in the UFSAR as "stand-alone" requirements. The licensee further notes that while stated in the second paragraph on page two of the NOV transmittal letter, but not cited as such in any of the violations, it appears that the NRC considers that the failure of the blowout panels to function at the UFSAR stated pressure of 45 psf is, in itself, a violation of regulatory requirements and a reportable situation. The licensee disagrees with this interpretation of the legal significance of the UFSAR, and is participating with the Nuclear Energy Institute (NEI) to initiate a dialogue with the NRC regarding the resolution of this generic issue. The licensee further states that notwithstanding its efforts to reach agreement on what the interpretation of information in the UFSAR should be, the licensee believes that it is clear that the NRC's regulatory interpretation is inconsistent with the previously issued guidance on reportability as referenced in the licensee's response.

6. NRC Evaluation of Licensee Response

The NRC agrees that the licensee, based on its erroneous calculations in October 1993, concluded that the pressure relief panels would provide relief at values below the reactor and turbine building superstructure failure pressure of 80 psf. While the licensee clearly should have been aware that the pressure relief panels would provide relief at values above the 80 psf superstructure pressures if the calculation had been adequately performed, it is also clear that the licensee could not report a condition that it was not aware of, even though it should have been aware of the condition. Nonetheless, the licensee was aware that the panels' pressure relief values calculated in 1993 were above the stated value of 45 psf

³58 Fed Reg. 18167, 18174, April 8, 1993



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stated in the UFSAR at which the panels were supposed to provide relief. The NRC maintains that the licensee was outside of its design basis and decreased the margin to the pressure that would cause building failure and, therefore, the deviation from the UFSAR should have been reported to the NRC.

The NRC maintains this position, notwithstanding the licensee's contention that the guidance in NUREG-1022 would suggest that the condition was not reportable. The NRC believes that the licensee misinterpreted the NUREG-1022 guidance and in so doing, failed to report the subject condition to the NRC. Simply stated, the licensee's analogy of a missing high energy line break restraint, which subsequently is analyzed as not being required for compliance with the design basis, is not applicable to the pressure relief panels, a single component which provides a significant function in protecting the building superstructure in the event of an overpressure transient of the reactor or turbine buildings.

7. NRC Conclusion

The NRC concludes that the licensee has not provided an adequate basis for mitigating the civil penalty. Accordingly, the NRC has determined that a monetary civil penalty in the amount of \$50,000 should be imposed for the violations in Section I of the June 18, 1996 Notice. In addition, the licensee has not provided an adequate basis for the withdrawal of Violation II.B in the Notice.

