

September 13, 1996

Mr. Michael B. Roche
Vice President and Director
GPU Nuclear Corporation
Oyster Creek Nuclear Generating Station
P.O. Box 388
Forked River, New Jersey 08731

SUBJECT: GPU NUCLEAR RESPONSE TO NOTICE OF VIOLATION 96-03-01,-02 AND -03

Dear Mr. Roche:

This letter acknowledges your letter of June 28, 1996, in which you agree with our Notice of Violation (NOV) 50-219/96-03-01 and 96-03-02 and take exception to our NOV 96-03-03. Thank you for informing us of the corrective and preventive actions documented in your letter for NOVs 96-03-01 and 96-03-02. These actions will be examined during a future inspection of your licensed program.

After consideration of your exception to NOV 96-03-03, we concluded that the actions taken by your staff, after noting significant vibration of the Oyster Creek containment spray subsystem after modification in November 1994, violated the requirement of 10 CFR Part 50, Appendix B Criteria XVI that "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, defective material and equipment, and nonconformances are promptly identified and corrected." Specifically, we concluded that your failure to perform a technically-based assessment of the impact of the containment spray subsystem vibration until a year later, after a service water system operational performance inspection (SWSOPI) team noted the condition in December 1995, is an inadequate response to assess a condition adverse to quality, because the measure established was not prompt. We are concerned that GPU Nuclear did not take sufficient action to assure that the vibration was not adverse to quality for over a year. However, we noted that your final, documented evaluation determined the vibration did not have an adverse effect.

The NRC inspector found that the vibration problem was first recognized during a post-modification test to support installation of an orifice plate during refueling outage R15 in November 1994. You indicated that system operability was informally determined based on engineering judgement. This determination and the basis for the conclusions were not documented. The system engineer recalled that the vibration of the containment spray system continued during each monthly surveillance test since that time and that no follow-up action or technical assessment was documented until identified by the SWSOPI team during an inspection in December 1995, over one year after the modification was installed.

During a special test on April 23, 1996, to obtain additional displacement measurements, audible and visible vibration was found by the NRC inspector in the general vicinity of the installed orifice plate. The inspector identified three small leaks on containment spray

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system instrumentation lines that were also visibly vibrating. A threaded rod attached to the emergency service water system pipe hanger had broken and required replacement after exhibiting extensive vibration during the containment spray test. Furthermore, vibration of two rod hangers under the floor structure was noted that could possibly be attributed to the containment spray system vibration.

Your response to the NOV indicated that the Oyster Creek Generic Mechanical Post-Modification Test Procedure (TP200/O) required observation of all equipment and piping while in operation to verify absence of excessive vibration. You furthermore indicated that the procedure did not specify collection of specific data. Vibration of the containment spray system was recognized by the test engineer and system engineer and was of sufficient concern that they requested evaluation by a structural engineer. In the absence of any documented measurement of the vibration, the structural engineer found that the vibration was not of sufficient significance to justify a more extensive study. As indicated above, this sequence of events and the basis for the operability determination were not documented.

On the basis of the SWSOPI, you instrumented and tested the piping system and found that the original engineering judgement was confirmed. You furthermore substantiated that the B31.1 stress limits were met and that the system would not fail due to fatigue. Your response to the NOV stated that you concluded that a condition adverse to quality did not exist and had not existed previously. Therefore, you concluded that Appendix B, Criterion XVI, was fully complied with.

In summary, at the time of the discovery of the vibration issue, there was no formal, documented record of the technical basis on which the noted vibration was deemed not to be a safety concern. The SWSOPI called into question the effect the vibration had on the containment spray system. The formal assessment of the vibration, subsequent to the SWSOPI, was the first documentation of a technically-based assessment concluding that the vibration was not excessive. Since this was not performed until one year after identifying the noticeable vibration, we have concluded that the violation cited for not making a timely, technically based assessment is justified. The observed leakage and pipe support failure further substantiated this conclusion.

NRC staff noted that your current actions are appropriate for assessing the impact of the vibration and verifying operability of the containment spray system. However, we also concluded that your corrective actions to address this violation are inadequate because they do not address the failure to make a timely, technically based assessment of a condition warranting such an assessment even though, in this case, the result did not generate an immediate safety concern. We further consider this to be an example of where a more formal approach should have been taken much earlier in the process.

Mr. Michael B. Roche

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Your cooperation and attention to this matter is appreciated. Please inform us within 30 days of receipt of this letter, what corrective actions you have taken to address the issues raised above regarding the timely implementation of formal, well-documented approach to assess conditions potentially adverse to quality.

Sincerely,

Original Signed By:

Richard W. Cooper, II, Director
Division of Reactor Projects

Docket No. 50-219

cc:

G. Busch, Manager, Site Licensing, Oyster Creek
M. Laggart, Manager, Corporate Licensing
State of New Jersey

Mr. Michael B. Roche

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2 changes,
as noted