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August 7, 1992

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Chief, Rules and Directive Review Branch

Subject: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Comments on Generic Letter 89-10, Draft Supplement 5

GNRO-92/00106

Gentlemen:

The Grand Gulf Nuclear Station (GCNS) Staff has reviewed the draft Supplement 5 to Generic Letter (GL) 89-10, "Inaccuracy of Motor-Operated Valve Diagnostic Equipment Resulting from Valve Stem Directional Effects," as noticed in Volume 57 of the Federal Register, dated July 8, 1992. Comments resulting from our review are delineated in the attachment.

We appreciate the opportunity to comment on this proposed supplement to GL 89-10 and request NPC consideration of these comments in formulation of the final document. Please contact M. K. Brandon at (601) 437-6488 should there be any questions regarding our comments.

Yours truly,

MKB/CEB/mtc

attachment: Comments on Draft Generic Letter 89-10, Supplement 5

cc: (See Next Page)

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August 7, 1992
GNRO-92/00106
Page 2 of 3

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ATTACHMENT

GRAND GULF NUCLEAR STATION
COMMENTS ON DRAFT GENERIC LETTER 89-10, SUPPLEMENT 5

SPECIFIC COMMENTS

1. 57FR30273, Column 2, Last Paragraph

An MOV calculated to have different than expected margin due to instrument error is not necessarily inoperable. This paragraph implies that NRC considers any infringement on a conservative margin as justification to declare a valve inoperable. If the NRC is taking the position that thrust settings that infringe on the calculated margins result in an MOV being inoperable, then this is a new interpretation which requires justification by an appropriate backfit analysis. The still undetermined long-term accuracy and repeatability of ANY diagnostic equipment available today leaves all thrust settings as no more than a ballpark estimate that the original manufacturers' supplied torque switch settings are reasonable, and that gross degradation is not present in the valve-actuator assembly.

In assessing the significance of margin reduction, licensees should rely on the guidance of Generic Letter 91-18 for dealing with degraded and/or nonconforming conditions.

Suggested Rewording

If a licensee finds an MOV does not have adequate margin, the licensee should take action as designated by their applicable 89-10 and/or nonconformance programs, as supplemented by the guidance of Generic Letter 91-18.

2. 57FR30273, Column 3, Reporting Requirements (General Comment)

Specific immediate action over and above the overall action required for GL 89-10 response is not justified. The uncertainty associated with any vendors' equipment will not be known until years of field data is accumulated and reviewed. This issue could easily be covered and commitments determined, as necessary, during each plants' follow-up inspections. A special report on just the use of MOVATS equipment without evaluating other vendor equipment errors seems somewhat narrow-focused and premature considering the limited amount of data available. An industry wide notice, such as a information-only Generic Letter or an NRC Information Notice, would seem more appropriate. This document should provide

ATTACHMENT

GRAND GULF NUCLEAR STATION
COMMENTS ON DRAFT GENERIC LETTER 89-10, SUPPLEMENT 5

guidelines on the information to be contained in a licensee's final GL 89-10 response ensuring that open vs. close errors have properly been addressed. This would also allow time for further information industry-wide to be collected, and give a structured method to respond to other diagnostic test equipment issues as they arise. It is certain that other vendor problems and other error mechanisms will develop as more valves are tested and more information is generated. The specific action time allotted for GL 89-10 response was done so because the industry and the NRC agreed that major safety concerns did not exist with MOVs, in general. Grand Gulf believes that this remains the case.

Additionally, the requested response time is overly restrictive and burdensome on a licensee. In light of the more reasonable time period allowed for actions in response to the original Generic Letter 89-10, the period of time which different test equipment inaccuracies have been recognized, and the everpresent remaining uncertainty in testing methodologies, a rapid response is not appropriate or beneficial.

3. 57FR30273, Column 3, Reporting Requirements, Items (c) and (d)

The identification and reporting of MOVs that are not sized and set to provide sufficient margins are currently controlled by the existing MOV programs to which each licensee has committed and which the NRC has audited and found satisfactory for most utilities. There are no new findings or problems addressed in the proposed supplement that would invalidate or require modification to a licensee's current program to determine reportability and acceptability of valve sizing concerns. Therefore, a request for specific reporting of individual MOV sizing outliers and specific corrective actions is inappropriate and inconsistent with currently accepted practices. It appears that the actions requested in items (c) and (d) could result in a new and continuous reporting burden that could be cycled indefinitely as different findings regarding the assumptions and margins associated with valve testing occurs.

Items (c) and (d) should be deleted as this action is currently addressed by existing programs.

ATTACHMENT

GRAND GULF NUCLEAR STATION
COMMENTS ON DRAFT GENERIC LETTER 89-10, SUPPLEMENT 5

4. 57FR30274, Column 1, Paragraph 2

To assume that MOVs set below actuator manufacturer's original recommendations have decreased confidence seems misleading and counter-productive. There have been substantial changes in the way switch settings are derived, such as re-establishing maximum expected differential pressure in present design vs. original design basis, applying calculated voltage drops rather than nominal design, and resetting torque switches with diagnostics that include all known errors and allowances. Therefore, Grand Gulf recommends that sentences 4, 5, & 6 be deleted or reworded. The inference that the industry as a whole has reduced their accident mitigation capabilities by premature diagnostic testing with unproven technology is inappropriate and unfounded.

Suggested Rewording for Sentences 5 and 6

The staff recommends evaluation of these MOVs to ensure their confidence to perform has not been reduced. If performance confidence has been reduced on any MOV, then an appropriate non-conformance evaluation should be implemented.

5. 57FR30274, Column 2, Last Paragraph

It is confusing that NRC has accepted ITI-MOVATS conclusion of Part 21 non-reportability, but NRC appears to be dogmatic on imposing a restrictive response time criteria (as would be associated with a safety-significant Part 21 reportable condition) on the licensees.

ATTACHMENT

GRAND GULF NUCLEAR STATION
COMMENTS ON DRAFT GENERIC LETTER 89-10, SUPPLEMENT 5

GENERAL COMMENTS

- 1) It appears that the main intent of supplement 5 is to help establish a means for determining the error caused by the differences between the open and closed strokes. If this truly is the case, then it appears that NRC may be premature in endorsing the equation from ITI/MOVATS. In their equation to compute the rate of loading for the close direction a licensee must use the calibration from the open direction. The direct application of this calibration to a close stroke has not been well established. It seems inconsistent to use a open and close error in your calculation, when the point of this whole problem is trying to find out what that error really is.
- 2) The NRC's comment about lowering torque switch setting when MOV's have only been statically tested, or Differential Pressure tested at less than design is unclear. The same values given to the MOV vendors to size the actuator are the same values used to set up an MOV (equipment error is also added during testing). If the NRC feels that setting the torque switch setting to a vendors recommended setting (based on a spring pack curve) is better than setting up a MOV to some measured value using diagnostic equipment, then NRC should explicitly endorse this as an acceptable means for establishing valve settings.
- 3) The ITI/MOVATS equation endorsed by NUMARC and by NRC in the draft supplement assigns pre-selected values to two "variables" in the equations, stem factor of 0.15 and the generic spring pack curve from Limitorque. Not all plants have or use stem factors of 0.15, their actual stem factors may be better or worse than those in the calculation. If a valve's stem factor is better, then it may not need the values that come from the calculation; however, if the stem factor is worse than 0.15, then the valve may not be able to achieve the values of the calculation.

The calculation also relies on the design spring pack curves. This practice may not provide credible results as some of the values are know to be erroneous.

In summary, the validity of this calculational methodology is questionable based on the fact that it uses an error to find an error and that it uses two other assumed but unknown values in it's computation.