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October 22 1985

PY-CEI/OIE 0129 L

Mr. James G. Keppler
Regional Administrator, Region III
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

RE: Perry Nuclear Power Plant
Docket Nos. 50-440; 50-441
Model BE-419 Pipe Clamps
[RDC 135(85)]

Dear Mr. Keppler:

This letter is the final report pursuant to 10CFR50.55(e) concerning BE-419 pipe clamps manufactured by Basic Engineers of Pittsburgh, Pennsylvania, a Division of National Valve and Manufacturing Company (NAVCO). On April 30, 1985, Mr. E. Riley of The Cleveland Electric Illuminating Company (CEI) telephoned Mr. R. Knop to report this deficiency which is being evaluated per Deviation Analysis Report 238, and an interim report was submitted on May 30, 1985. Subsequent to our notification of this problem to the Commission, a 10CFR21 Report was filed by Pacific Scientific on June 18, 1985.

Description of Deficiency

During the process of final hanger inspection, it was identified that there were instances where BE-419 pipe clamps would rotate about the axis of the pipe when subjected to a transverse compressive type load less than the allowable design load. This rotation occurs when the clamps are installed properly and the fastener bolts are torqued per the Vendor's specification requirements. Detailed review/evaluation by Basic Engineering and Project Organization has determined that this deficiency is applicable to two (2) models within the BE-419 clamp series utilized at the Perry Nuclear Power Plant (PNPP). The clamp models and respective size categories are BE-419 N-1 (3/4" and 1") and BE-419 N-2 (1").

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Analysis of Safety Implications

Under certain loading conditions, the functional integrity of the systems utilizing these supports cannot be assured without the components performing as designed.

Corrective Action

Upon initial discovery of the deficiency, Basic Engineering (BE) was contacted to provide background design information and to execute a testing program to determine the extent of the problem. The testing program identified that certain BE clamps would fail when transversely loaded. BE then provided a written report attesting to the subject failures.

Project Organization has taken the following steps to resolve this concern:

1) The Basic Engineering report was evaluated to determine which of the identified clamps were used at PNPP. Results of the review indicated that only two models and sizes of clamps impacted the as-installed component supports. The clamps in question are the BE-419 N-1, 3/4" and 1" sizes and the BE-419 N-2, 1" size. Subsequently, Nonconformance Reports were generated to identify all deficient clamps. No deficient clamps have been installed in Unit 2.

2) The clamp manufacturer, Basic Engineering, and the clamp supplier, Pacific Scientific, were requested to revise the pertinent Load Capacity Data Sheets (LCD's) and the installation manual, respectively. This action has been completed.

3) All contractors responsible for installation of the subject clamps were directed to revise appropriate procedures, providing guidelines for future installations.

4) The Nonconformance Reports which identify the installed supports have been dispositioned rework. Rework instructions provided for increased clamp bolt torque values, substitute bolting material, and specific inspection instructions. Necessary actions to change-out all of the installed bolts have been completed. Clamps presently located in the CEI warehouse have also been identified on Nonconformance Reports and placed on hold. These clamps will remain on hold pending substitution of new bolting material and contractor procedure revision detailing new installation instructions.

Based on the actions already taken and the present controls imposed on warehouse stock material, CEI considers this item resolved relative to Unit 1. This deficiency is not applicable to Unit 2. If you have any questions, please call.

Sincerely,

Murray R. Edelman

Murray R. Edelman
Vice President
Nuclear Group

MRE:sab

cc: J. A. Grobe
USNRC, Site Office SBB50

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