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JUN 1 1984

Mr. Thomas E. Murley
United States Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region I
631 Park Avenue
King of Prussia, Penna. 19406

Subject: Significant Deficiency Report #16
ASME Bolts, Nuts and Studs obtained from
unapproved sources
Unresolved Item 50-352/84-14-02
Limerick Generating Station Units 1 & 2
NRC Construction Permit #CPPR-106, 107

Reference: a) Telecon of August 26, 1980-H.R.Walters (PECO)
to R. McGaughy (NRC)
b) Letter J. S. Kemper (PECO) to B. Grier (NRC)
dated September 25, 1980
c) Letter J. S. Kemper (PECO) to B. Grier (NRC)
dated December 30, 1980
d) Letter R. W. Starostecki (NRC) to J. S. Kemper(PECO)
dated April 20, 1984 (NRC Region I Inspection
50-352/84-14; 50-353/84-04)

File: QUAL 2-10-2 (SDR #16)

Dear Mr. Murley:

Attached is an amended report on the above subject deficiency which was previously reported to the USNRC per the references above in accordance with 10 CFR 50.55 (e). This amended report was brought about as a result of field activities subsequent to our submission of the previous referenced final report.

If there are any questions on this matter we will be pleased to discuss them with you.

Sincerely,

John S. Kemper

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1.0 Introduction

Certain bolts, nuts, and studs have been furnished to the Limerick Jobsite for ASME service which did not comply with NA-3700 of ASME Section III, Winter, 1976.

In compliance with 10CFR 50.55(e), this Final Report is issued to describe the deficiency, analyze the safety implications, and describe the corrective action taken.

A written interim report was submitted on September 25, 1980 which committed us to send the previously submitted final report by December 30, 1980. This amended report supercedes all previous reports.

2.0 Description of Problem

The Limerick Project has been supplied ASME Section III bolts, nuts and studs by REC Corporation, New Rochelle, New York. These bolting materials were procured by REC from material manufacturers that do not have Quality Assurance programs that have been approved by Bechtel. Such approval is contingent upon either the material manufacturer holding a current ASME Quality System Certificate (Materials) or upon a satisfactory survey of the manufacturer by Bechtel.

Our interim report of September 25, 1980 indicated that approximately 25,000 items were involved with 10% installed.

At the time of our final report of December 30, 1980, our inventory indicated that 16,631 items were involved of which 492 were issued for installation (all for use at flanged joints). These items, all supplied by REC Corporation, came from the following material manufacturers or suppliers:

Allied International
Shigayama and Co., Ltd
Kurt Orban Co., Inc.
Wycoff Steel
Republic Steel (Cleveland Plant)
Colt Industries (Crucible Division)

B & G Manufacturing Co., which was listed on our interim report, supplied material for use only in balance of plant systems. B & G material is acceptable for its intended use. Kinki Marusi Nut Kyogyo Kumia, which was listed separately on our interim report, supplied material to Shigayama and Co., Ltd.

3.0 Analysis of Safety Implications

Because of the large number of bolts involved and the large number of applications where they were used or could have been used, it is not feasible to hypothesize and analyze individual applications regarding safety implications. However, our latest evaluation has determined that this condition is merely an administrative problem in that an ASME Code requirement was not satisfied. All the bolts were supplied with Certified Material Test Report's (CMTR's) to demonstrate that they meet the material specification requirements. The code requirement not satisfied was that the subtier suppliers were not ASME certified nor had we reviewed and approved their QA program. It should be noted that as required by our QA program our direct supplier was on the Approved Supplier's List.

As a result of this re-evaluation, it now appears that had this condition gone undetected, while safety may have been compromised in the event of a bolting failure, it is not likely that a bolting failure would have occurred because the actual material did meet the material specification requirements.

4.0 Corrective Action Taken

In the 1980 report we stated that 8 nonconformance reports which were mentioned in our interim report of Sept. 25, 1980 were dispositioned as follows: The NCR dealing with B and G was dispositioned to use B and G materials in balance of plant applications as they meet specification requirements for these applications. The other seven NCR's were dispositioned to return all non-conforming items to REC.

The NCR's indicated that all bolting material was being returned to REC, when in fact only the bolting material identified on shipping notices listed on those reports was to be returned to REC. It was later discovered that in one instance a lot of approximately 226 items that was listed on the shipping report had not been returned and this condition was identified on an additional nonconformance report. The original 7 nonconformance reports were revised to clearly indicate what material was returned to REC. Since the submission of our final report of 1980, several additional nonconformance reports have been written and the disposition of these nonconformance reports did not, in all cases, require the return of the unacceptable material to REC. Various methods were used to preclude the use of this material in systems where it would be unacceptable such as the obliteration of heat numbers and painting with color codes to identify material which will only be used in temporary or balance of plant installations.

All flanges that have been made up and accepted by Quality Control to date have been reviewed for the heat numbers relating to the above unacceptable material supplied by REC, and any unacceptable bolting material has been replaced. As additional means of assuring that unacceptable material will not be installed in the plant, a list of the unacceptable bolting material heat numbers has been provided to Quality Control with the requirement that unacceptable material be rejected where they occur in ASME systems. This procedure will ensure that all unacceptable material is replaced. Since the implementation of this procedure took place at approximately the time of our 1980 final report, there have been several instances where unacceptable material has been identified by Quality Control Inspectors and dispositioned in accordance with nonconformance reports which required the replacement of the material with acceptable material. This is supporting evidence that the Quality Control Procedures, which we have implemented are adequate and effective. It should be noted that since the time of our previous final report a substantially larger number of bolting materials have been received on site. However, existing warehouse procedures require the segregation of non-ASME materials from ASME materials after the material has been finally released by Quality Control. The final release by Quality Control is predicated upon review and approval of any documentation necessary to assure the acceptability of material.

5.0 Conclusion

The corrective actions described above will correct and eliminate the problem related to ASME bolts, nuts and studs obtained from unapproved sources.