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Edison

Fermi-2
6400 North Dixie Highway
Newport, Michigan 48166
(313) 586-4150

DMB

August 1, 1984
EF2-69286

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

Dear Mr. Keppler:

- References:
- (1) Fermi 2
NRC Docket No. 50-341
 - (2) Letter, D. A. Wells to J. G. Keppler,
April 1, 1981, EF2-49,963
 - (3) Letter, D. A. Wells to J. G. Keppler,
July 29, 1981, EF2-54130
 - (4) Letter, D. A. Wells to J. G. Keppler,
November 25, 1981, EF2-54714
 - (5) Letter, D. A. Wells to J. G. Keppler,
March 25, 1982, EF2-57155
 - (6) Letter, D. A. Wells to J. G. Keppler,
July 23, 1982, EF2-59381

Subject: Final Report of 10CFR50.55(e) Item 40
"Calibration of Torque Wrenches"

This is Detroit Edison's final report concerning calibration of torque wrenches. Item 40 was originally reported as a potential deficiency on March 3, 1981, and subsequently documented in Reference (2). Interim reports were provided in References (3), (4), (5) and (6). This report is a summary description of the deficiency and corrective actions.

Description of Deficiency

During an audit of Wismer and Becker concluding in February, 1981, a problem was identified in the specification of calibration tolerances for torque wrenches. Requirements

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indicated that wrenches were to be calibrated within plus or minus four percent. The calibration laboratory, Toledo Testing Laboratory, considered this requirement to mean plus or minus four percent of full scale. However, the wrenches should have been calibrated to plus or minus four percent of the reading. The calibration is normally performed at four positions on the scale.

In addition, a number of wrenches calibrated by Toledo Testing Laboratory did not meet accuracy requirements. The laboratory report contained no specific notations indicating that the wrenches were either acceptable or unacceptable. Wismer and Becker received the wrenches from the lab and issued them to the field without questioning the lab report. Thus, the following problems were identified:

- o Wismer and Becker failed to provide acceptance criteria to Toledo Testing Laboratory;
- o Toledo Testing Laboratory failed to adjust torque wrenches which were out of tolerance;
- o Wismer and Becker failed to recognize that the wrenches were out of tolerance when returned to the site;
- o Toledo Testing Laboratory failed to attest to the accuracy of the wrenches after completing calibration.

Analysis of Safety Implications

The use of out of tolerance torque wrenches could have caused bolts to be torqued incorrectly. This could result in the failure of a safety related component to perform its intended function.

Corrective Action

The following actions have been completed to correct the problems and prevent recurrence:

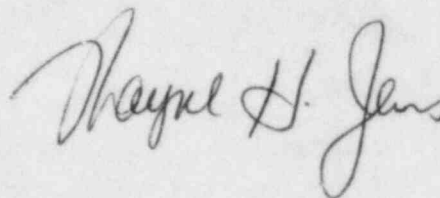
- o The remedial corrective action included an audit of site contractor torque wrench calibration programs to determine if similar deficiencies existed. No significant deficiencies were identified in any case except for Wismer and Becker.

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- o All Wismer and Becker torque wrenches were recalled from the field. Wrenches issued to the field in an out of tolerance condition were identified and recalibrated. An investigation was completed to determine where the defective wrenches were used and Deviation Disposition Requests (DDR's) were issued to obtain engineering evaluation.
- o Wismer and Becker procedures were revised to require torque wrench calibrations at a more frequent interval. Currently, torque wrenches are calibrated monthly.
- o Specifications were revised to clarify calibration tolerances and to require any necessary adjustment of the torque wrenches.
- o As a result of the disposition to the above DDR's, a retorquing program was established in March, 1981, and has been satisfactorily completed.

This is Detroit Edison's final report on this item. If you have questions concerning this matter, please contact Mr. Lewis P. Bregni, (313) 586-5083.

Sincerely,

A handwritten signature in cursive script, appearing to read "Wayne H. Jens".

cc: Mr. P. M. Byron
Mr. R. C. DeYoung
Mr. R. C. Knop