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June 9, 1980

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Mr J G Keppler, Regional Director Office of Inspection and Enforcement US Nuclear Regulatory Commission Region III 799 Roosevelt Road Glen Ellyn, IL 60137

MIDLAND PROJECT DOCKET NO 50-329, 50-330 IE BULLETIN 79-02 FILE: 0505.12 UFI. 99*02*05*10 SERIAL: 9107

References: S H Howell letters to J G Keppler; Midland Project; Docket No 50-329, 50-330; IE Bulletin 79-02;

- 1) Serial Howe-195-79; dated July 3, 1979
- 2) Serial Howe-233-79; dated August 15, 1979
- 3) Serial Howe-84-80; dated May 7, 1980

Reference 1 and 2 provided Consumers Power Company's response to IE Bulletin 79-02. Reference 3 stated that we had determined that further actions were needed to provide corrections to the response provided by Reference 2. Further investigation discovered a few specific cases where a statement in the attachment to Reference 1 was incorrect due to the specification requirements having been misapplied in the actual installation. The attachment provides a summary of the actions being taken to obtain the required information and the results to date.

Either a final response or a status of the actions being taken to provide the response will be transmitted to you on or before October 31, 1980.

Yours very truly,

ames W. Cook

JWC/blt

CC: Director, Office of Inspection & Enforcement Att: Mr Victor Stello, USNRC (15)

Director, Office of Management Information & Program Control, USNRC (1)



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Attachment to JWCook letter to JGKeppler dated June 2, 1980.

STATUS OF ACTIONS TO PROVIDE A CORRECTED RESPONSE TO IE BULLETIN 79-02

A Bechtel management audit was conducted during May to determine the extent that information supplied in the CPCo responses to IE Bulletin 79-02 required correction and to determine if there were programmatic breakdowns in the activities responsible for providing the initial responses. The formal audit report is expected to be released by June 30, 1980. The following statements on the responses to 79-02 are considered in error or they are not capable of substantiation at this time.

1 Anchor Bolt Use Prohibition

a From the response to Question 3 found on Page 2, to the attachment to letter Howe 195-79 dated July 3, 1979

"Expansion anchors are not used on the supports of pipes subject to high cyclic operating loads...., it will be verified by field inspection that no expansion anchors were used for these lines."

b Actual Condition: Specification 7220-C-305(Q) provides the type prohibition stated in the response. However, some engineering drawings specify the use of anchors at locations subject to vibration and there have been found several cases where expansion anchors were installed.

2 Determination of Proper Embedment Depth

a From the second paragraph of letter Howe 223-79, dated August 15, 1979:

"An inspection was made of 267 anchor bolts to determine their actual embedment depths."

- b Actual Condition: Two anomalies with the embedment depth inspection activity have been noted:
 - 1 Samples for UT testing of length for embedment depth determination were not chosen using random number tables as indicated in the report responding to IE Bulletin 79-02 and as requested by Engineering.
 - 2 The UT procedure specified by Engineering was not used. There is no evidence available to indicate Project Engineering approved the procedure actually used.

It is not anticipated that these anomalies will affect the initial conclusion that actual embedment depth is not a significant factor in the expansion anchors ability to meet the design requirement of a factor of safety of four. The initial response is considered not verified pending disposition of the anomalies.

3 Demonstration of Achievement of Required Factor of Safety

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a From the second and third paragraphs of letter Howe 223-79, dated August 15, 1979:

> "Out of approximately 10,000 anchor bolts installed, 8,091 bolts were torque tested at a torque equivalent to twice the design loads specified in C-305 for the given bolt size.

By design, anchor bolts used in seismic applications are limited to design loads of one half that specified for the given bolt size in C-305. The result of the torque test was that only five anchor studs failed the torque test. These five were torqued to the specified values and made acceptable to Quality Control. Thus, it is concluded that it has been physically demonstrated that the anchors have a factor of safety of 4 over their allowable design loads."

b Actual Condition: The 8,091 number does not represent a retest by Quality Control to demonstrate that the torque equivalent to twice the design loads had been developed in the bolts. In actuality, only 828 bolts were retested; the remaining number represented in the 8,091 having come from only a record review. Engineering had based their conclusions on the assumption that all 8,091 of the bolts had been actually retested. There are questions to be resolved on the availability of inspection records to completely document the retesting and reinspection activities and some question on the actual inspection techniques used. Some characteristics required to be verified by the 79-02 Revision 1 bulletin are considered unverified at this time and the conclusion that "the anchors have a factor of safety of four over their allowable design loads" must be reverified by further testing and inspection.

The following actions are planned to resolve the above items:

- 1 To resolve item 1 P&IDs will be reviewed to identity piping subject to vibratory loading; installation drawings will be reviewed for improper call out of expansion anchors and drawing revisions, reinspections, and rework will be accomplished as necessary. Anticipated completion of this task is April 1981.
- 2 To resolve Item 2 analysis and UT procedural qualification and retesting will be accomplished as necessary to disposition the conditions noted. This task will be accomplished in conjunction with Item 3 below.

3 To resolve Item 3 a new inspection and test program will be formulated and executed. Anticipated completion of this task is May 1981.

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- 4 Bechtel's Management Corrective Action Reports numbers MCAR 31 and MCAR 34 will remain open until all required actions for them are completed and verified.
- 5 Review the analysis and reinspection data for reportability criteria if the data indicates that significant numbers of anchors do not meet design requirements.
- 6 The corrective action program in response to MCAR 34 and the 50.55(e) item on drop-in anchors is in progress and is scheduled for completion in March 1981.