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Mr J G Keppler, Regional Director
Office of Inspection and Enforcement
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
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MIDLAND PROJECT

DOCKET NOS 70-329, 50-330

LETDOWN COOLER SUPPORTS

FILE: 0.4.9.38 UFI: 73*10*01, 15240(E), 02312(S) SERIAL: 12034

References: CPCo letters to J G Keppler, Same Subject:

- (1) Serial Howe-64-80, dated March 27, 1980
- (2) Serial 9180 dated June 19, 1980
- (3) Serial 9769 dated October 10, 1980
- (4) Serial 10994 dated December 30, 1980
- (5) Serial 11177 dated January 30, 1981
- (6) Serial 11967 dated April 15, 1981

The referenced letters were interim 50.55(e) reports concerning the overstressed condition in the letdown cooler supports. Corrective action has now been determined, and its implementation scheduled. This letter is therefore the final report on letdown cooler support overstress.

As it was originally determined, a deficiency existed in the design of the letdown cooler supports such that the application of design (specification) nozzle loads to the cooler would result in overstress of the lower support bracket, which is an integral part of the letdown cooler. The overstress resulted because the support platform, which mates the letdown cooler support bracket to the supporting structure, did not fully contact the letdown cooler support bracket, in effect rendering it a cantilever beam and thereby requiring it to sustain moments in excess of its capability. A detailed description of the deficiency is included in the attachment to reference 1.

Since the actual loads applied to the cooler would be less than the design loads, the possibility existed that the application of the actual loads would not cause an overstress condition. An analysis done by the equipment manufacturer later confirmed that this was not the case (reference 2).

In subsequent analysis, actual piping loads calculated by Bechtel were used. Actual piping loads were provided to the letdown cooler manufacturer (reference 3) who used them in combination with the loads due to the cooler

itself to analyze the cooler support bracket. These loads were then provided to Bechtel (reference 4 and 5) by B&W for use in designing the support platform.

B&W and the letdown cooler manufacturer also informed Bechtel of their requirement that the fixed cooler support bracket be encompassed by the support platform, to eliminate the cantilever condition, and that complete contact between the bracket and the platform be maintained. To accomplish this, three additional attachment bolts will be used.

Bechtel has determined that the support platform can be modified to meet these requirements.

The action to be taken to correct this deficiency is to drill three additional holes for attachment bolts in the letdown cooler support bracket, and to modify the support platform to fully contact the support bracket, and provide bolt holes and bolts to match the additional holes to the bracket. The design details are presently being finalized, and the installation of the support modifications is scheduled to be complete by February 26, 1982.

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HWD/lr

CC: Director of Office of Inspection & Enforcement
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