Detroit Edison

Donald A. Wells
Manager-Quality Assurance
(313) 237-8657

2000 Second Avenue
Detroit, Michigan 48226
(313) 237-8000

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

Subject: Final Report of 10CFR50.55(e) Item on Rockbestos Coaxial Cable Problem (#45)

Dear Mr. Keppler:

This is an amendment to revise the disposition reported on the final report of this item submitted November 20, 1981, on Rockbestos Coaxial Cable shorting the center conductor to the braided shield.

Rockbestos coaxial cable RSS-6 series 100 through 112 may be subject to failure at temperatures above 230°F according to the manufacturer.

The four cables (Rockbestos Catalogue "RSS-6-110") installed inside the primary containment were for Source Range Monitor (SRM) circuits. The original disposition was to replace these cables with cables meeting the environmental requirements. Further investigation by the Detroit Edison Environmental Qualification Group for an acceptable alternate triple shielded cable, required per GE for the SRM circuits to allow proper SRM operation, revealed that acceptable replacement cable was not available. Since the SRM circuits involved are not safety related, continued use of these cables was recommended.

Ten additional cables (Rockbestos Catalogue "RSS-6-103") used for main steam line radiation monitors, were located in the steam tunnel area. The Environmental Qualification Group has recommended the continued use of the existing cables inside the steam tunnel. The basis for retaining these cables was determined by the nature of the cable failure mechanism and the occurrence of the environmental conditions that caused the failure. The failure of the cable involves a short circuit of the conductor to the shield during elevated temperatures. A failure of this type would cause the radiation monitor to trip, similar to a low level trip. The low level trip, however, does not initiate reactor scram, but rather provides an alarm in the control room. The failure of the cable will not degrade nor inhibit other Reactor Protection System (RPS) functions.

The radiation monitors provide a reactor scram via RPS on high-high radiation levels in the main steam lines. The accidents postulated to occur that cause high radiation levels in the main steam lines are LOCA and Control Rod Drop.

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Only in the case of Control Rod Drop is credit taken for MSIV closure initiated by the radiation monitors. However, neither of these accidents cause a coincident increase in steam tunnel temperature sufficient to cause a failure of the cable.

The only postulated event that could cause temperatures in the steam tunnel to approach 230°F would be a main steam line break. In this event, even if the radiation monitors failed, other trip functions are available to mitigate the break, namely flow and temperature, and again the failure of the cables will not degrade other RPS functions.

In summary, the two events, high temperature (230°F) and high radiation are not postulated to occur simultaneously in the steam tunnel, and failure of the cable will not preclude the safety functions of the RPS.

If you have questions concerning this matter, please contact Mr. G.M. Trahey, Assistant Director-Project Quality Assurance.

Very truly yours,

DAWells

DAW/DF/cp

cc: Mr. Richard DeYoung, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Mr. Bruce Little, Senior Resident Inspector
U.S. Nuclear Regulatory Commission
6450 North Dixie Highway
Newport, Michigan 48166