

ENCLOSURE

BELLEFONTE NUCLEAR PLANT UNITS 1 AND 2  
HEADER SUPPORTS FOR RB COOLERS  
NCR NEB 80-10  
10 CFR 50.55(e)  
FINAL REPORT

Description of Deficiency

Support braces, as fabricated, for the cooling water headers for all the reactor building coolers in both Bellefonte units are of angle steel. However, American Air Filter (AAF), the cooler manufacturer, performed the seismic analysis of the coolers and supports based on the support braces being fabricated from box cross-section tubing.

The discrepancy between the as-fabricated braces and the brace design used in the seismic analysis was discovered by AAF when they were performing a general review of their seismic analysis methods used for all customers, including the Bellefonte units. This discovery was made subsequent to the shipment of the coolers to Bellefonte.

The Bellefonte units are the only B&W plants for which B&W contracted to supply the AAF reactor building coolers.

Safety Implications

The safety concern is that in the event of a seismic occurrence, the braces could possibly be overstressed causing the cooling water headers to become detached from the coolers. The coolers would, therefore, be unable to perform their cooling function if a LOCA accompanied the seismic event, and the reactor building temperature and pressure would exceed the values used in the plant safety analysis.

Corrective Action

The defective support braces have been returned to the vendor for modification to conform to the design used in the seismic analysis.

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