

DUKE POWER COMPANY
CATAWBA UNITS 1 AND 2

Report No.: SD/413-414/79-1

Report Date: July 20, 1979

Facility: Catawba Nuclear Station-Units 1 & 2

Identification of Deficiency: Main Control Boards
Defective Welds

Description of Deficiency:

During the installation of wiring and equipment on the 1MN1 section of the main control board for Unit 1, an apparent deficient skip weld of a wire duct to the board structure was detected. During further inspection, other welds were observed on main control boards for both units which appeared deficient. The manufacturer was called in to reinspect these control boards and investigate the cause of any deficient welds. The inspection identified 60 welds broken or of questionable quality. These were found in various random locations and included welds between structural members and welds between stiffeners and the panel surface metal.

This deficiency was reported to NRC Region II on June 21, 1979 as a reportable item under 10CFR50.55(e).

The panels were manufactured by Frank Electric Co. at their York, Pa. plant, over a period of time from July 1, 1977 to September 1, 1978.

Designation of Apparent Cause of Deficiency:

The manufacturer's investigation and analysis confirmed the apparent cause of the deficiency to be an inadequate welding process where a welder or welders did not follow the proper procedure (i.e. obtain sufficient heat during welding to obtain proper base metal penetration of the steel.)

Analysis of Safety Implications:

The total number of deficient welds was less than 1/2 of one percent of the total welds involved in the main control boards. There was no evidence of loose members or plates, or changes in shape and position of the board elements and the overall structural integrity of the boards was intact. Additionally, the seismic low level verification testing which is to be done prior to operation had not yet been performed on these boards. Since the plant was still in the construction stage, seismic verification testing was yet to be performed and the deficiencies were detected and corrected prior to operation, the health and safety of the public was not affected.

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