



Commonwealth Edison

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October 15, 1984

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Byron Generating Station Units 1 and 2
Braidwood Generating Station Units 1 and 2
Polar Crane Speeds
NRC Docket Nos. 50-454/455 and 50-456/457

Dear Denton:

This letter provides advance copies of an FSAR page which has been revised to correctly state the speeds of the polar crane trolley, bridge, and hoists at Byron and Braidwood Stations. This correction is necessary to clear up a discrepancy which has been noted by Region III Inspectors and is being tracked as Unresolved Item 454/84-38-02 (DRS).

Enclosed is revised page Q10.6-1 of the Byron/Braidwood FSAR. This revised page will be incorporated into the FSAR in the next amendment.

One signed original and fifteen copies of this letter and the enclosed page are provided for NRC review.

Very truly yours,

T. R. Tramm
Nuclear Licensing Administrator

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QUESTION 010.6

"Provide a description of the containment polar crane and indicate whether it is accordance with guidelines of Branch Technical Position ASB 9-1."

RESPONSE

The containment polar cranes are designed for Class A service per CMAA 70, with a design load of 230 tons on the main hook and 40 tons on the auxiliary hook. In addition, the cranes have been designed to withstand OBE and SSE stresses and the containment test pressure. Vents have been provided where needed. The cranes are also designed for a 40-year dose of 3.5×10^8 rads plus a 1-year dose of 10^8 rads. Brakes are designed in accordance with AISE except for the trolley brake and are rated at 100% of full motor torque for the hoist brakes, 150% for the bridge brakes, and 50% for the trolley brakes.

Each crane is shop tested per ANSI B30.2 at 125% of rated load, and each hook tested at 200% rated load.

Load movements are controllable to within 0.125 inch vertically and 0.6 inch horizontally from either the operator's cab or the pendant station. Safety lugs are provided in the event of axle failure. Upper and lower geared limit switches are provided for each hoist, and track limit switches are provided to prevent the trolley from powering into the end stops.

All structural steel is A36 or better.

The nominal speeds ($\pm 10\%$) of the main hoist, auxiliary hoist, trolley and bridge are 4.25, 25.50, 28.60, and 50 fpm, respectively. The main hoisting cables are 1.25 inches, 6 x 37 IWRC, with a breaking strength of 176,000 pounds. The hoist block contains seven sheaves. The auxiliary hoisting cables are 0.875 inch 6 x 37 IWRC, with a breaking strength of 87,600 pounds. The hoist block contains four sheaves.

The crane is designed such that no nuts, bolts, screws, etc., can fall into the fuel pools or reactor cavity if they work loose.