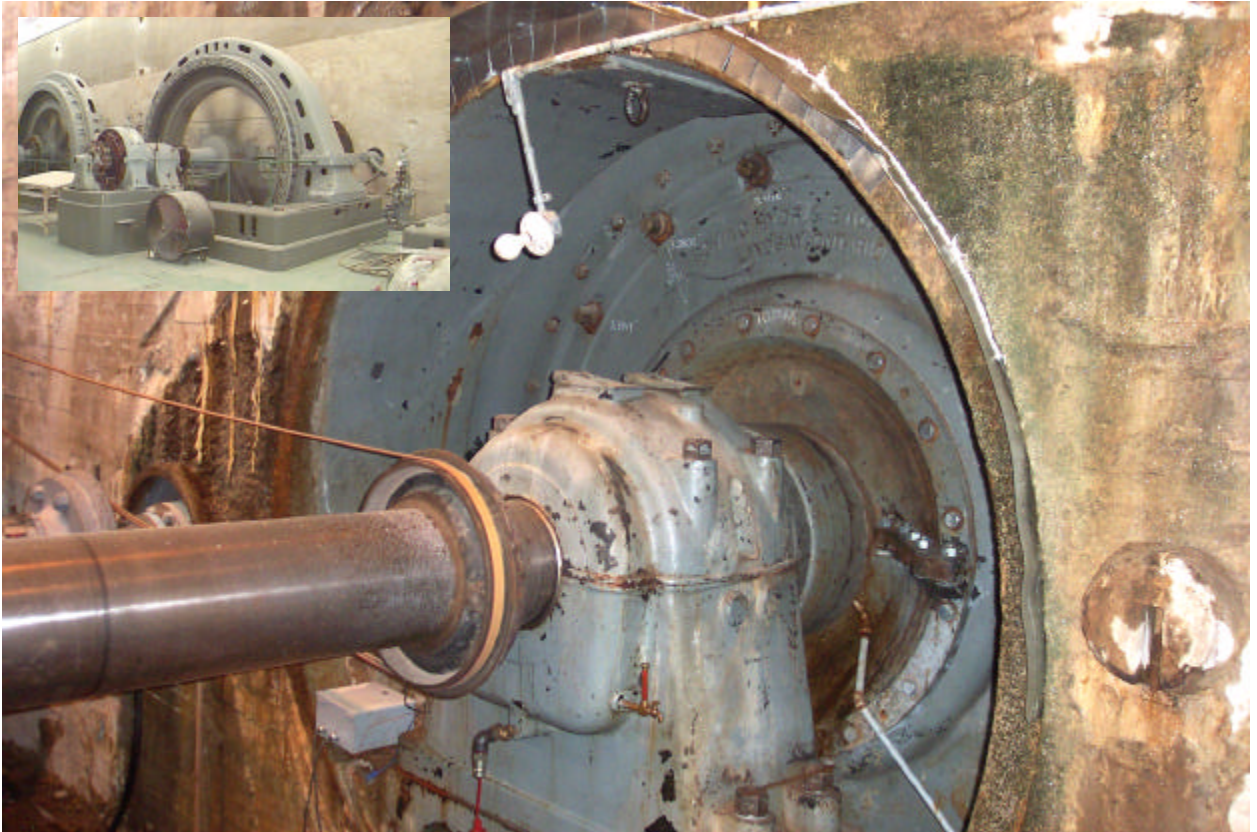


POINTE DU BOIS GENERATING STATION

HEAD COVER DESIGN

Manitoba Hydro

Pointe du Bois, Manitoba



Project Description

KGS Group assessed the existing and designed a new head cover for units 15 and 16 at their Pointe du Bois Generating Station. Owalling of the embedded wall casing head cover flange steel in the wall between the turbine pit and the generator hall has occurred due to ongoing Alkali Aggregate Reaction (AAR) concrete growth. The distortions in the embedded steel led to overstressing and cracks in the original cast iron head cover. The scope of work included field measurements and assessment of the head cover and its embedded steel, finite element assessment of the existing head cover, and design of a new head cover to accommodate continuing AAR growth of the surrounding concrete.