

1 Q. Reference: Prudence Review - Hydro's Response to Liberty's Report - Circuit Breaker
2 Performance in Cold Weather - page 13, lines 16-18
3 Please supply the manufacturers' specifications for the operating temperature for
4 Breaker B1L03 and comment on the use of this breaker in other Canadian
5 jurisdictions, particularly those that experience colder weather than in
6 Newfoundland.

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9 A. Breaker B1L03 was a 1966 Brown Boveri, Type DCVF Air Blast Circuit Breaker
10 (ABCB). The Brown Boveri Manual A11521 (*Instructions for Erection and Operation,*
11 *Types DCF & DCVF*) indicates the breaker is rated for a temperature range of -40 °C
12 to 50 °C. However, several utilities across Canada report low temperatures pose
13 challenges for air blast circuit breaker (ABCB) operation, as was experienced in
14 January 2014. Two Canadian utilities have placed restrictions on ABCB operation
15 (unless for protection reasons or absolutely necessary) when temperatures are low.
16 One utility uses -10 °C and another uses -20 °C as a guide. See also Hydro's
17 response to PR-V-NLH-003.