

1 Q. Reference: ESRA Nov. 2016, pages 22-23

2 Citatation:

3 Hydro has experienced multiple unit outages as a result of fuel valve failures in the
4 newly installed fuel contro valves at Hardwoods. Failure analysis conducted by the
5 valve OEM determined that the valve was being operated in excess of its pressure
6 rating. This was determined to be the likely cause of valve failure, as opposed to a
7 specific issues with the valve. By moving the fuel supply to the valve to downstream
8 of a pressure regulator rather than upstream from the regulator, the valve was able
9 to be supplied at a lower pressure level. There have been no subsequent pressure
10 induced valve failures.

11 Question:

12 Please confirm that this analysis demonstrates that the multiple unit outages at
13 Hardwoods were caused by incorrect installation of the fuel valve upstream of the
14 pressure regulator.

15 Has Hydro determined the source of this error? Was it due to incorrect information
16 from the manufacturer, or to error on the part of Hydro's management or
17 personnel?

18 If it was due to information from the manufacturer, have any steps been taken to
19 recover the additional system costs resulting from these outages? If due to Hydro's
20 errors, please describe the steps taken in this regard.

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23 A. Hydro does not confirm that *all* unit outages at Hardwoods were caused by the
24 location of the fuel valve. The analysis demonstrates that the fuel valves were
25 incorrectly installed due to an error in the location of supply. The correction of the
26 problem was carried out by the installation contractor, and the cost of the required
27 valve repairs was also borne by the contractor. The source of the error results from

1 the installation contractor purchasing a replacement fuel valve from the
2 manufacturer that was not suitable for the operating pressure at the location it was
3 installed.