

1 Q. On page A-19, section 3.3.1, of Babcock & Wilcox *Engineering Study Report* on  
2 Holyrood Units 1, 2, and 3 it is stated as a conclusion that *“fouling of the Holyrood*  
3 *units leading to reduced maximum load capability has occurred between 2015 and*  
4 *2018, following discontinuation of fuel oil MgO injection.”*

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6 Hydro’s *Near-Term Generation Adequacy Report* dated May 22, 2018 provides some  
7 explanation as to why the fuel additive was discontinued in 2014. Page 18 of the  
8 report states that *“B&W also observed that the decline in unit performance is due to*  
9 *the impact of discontinuing the use of fuel additive, a decision which occurred in*  
10 *2014 and was based on the improved fuel oil supply specification. Hydro deemed the*  
11 *cost of supplying this additive was no longer required since the quantities of*  
12 *vanadium and other metals in the fuel had dropped to near zero. The impact on*  
13 *fouling at the air heaters was not known. Fuel additive will be reinstated before the*  
14 *2018-2019 operating season.”*

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16 As noted above in the Babcock & Wilcox *Engineering Study Report* fouling of the  
17 units occurred from 2015-2018 resulting in their current de-rated capacities. Why  
18 did it take approximately four years to make a correlation between increased  
19 fouling and the discontinuation of the fuel additive in 2014?

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22 A. Some fouling from combustion products is normally expected to accumulate inside  
23 a boiler during operation and is accounted for in the design with additional capacity  
24 margins and installed soot blowing equipment. In this case, it took considerable  
25 time for the accumulating hard ash in the back end of the boiler to reach the point  
26 where it became the limiting factor on boiler capacity. Additionally, the hidden

- 1 nature of the economizer fouling coupled with other boiler capacity limiting issues
- 2 during the development period inhibited earlier identification.