

1 Q. Reference: Upgrade Powerhouse Roofing, Volume I, Section C, Page C-12  
2 *“Given the roofing systems’ age and noted condition, the occurrence of leaks is*  
3 *imminent.”*

4 Have there been recorded leaks in the powerhouse roof? If so please provide  
5 details including date, location and damage experienced.  
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8 A. There have been no recorded leaks in the powerhouse roof. As is outlined on page  
9 3 of the report, a proactive approach is required to ensure that the roof  
10 replacement can be completed prior to the failure of the roofing membrane  
11 system.  
12

13 In 2013, Hydro engaged AMEC to complete a Level 2 condition assessment of  
14 various civil structures and the Unit 3 generator. When completing the assessment,  
15 AMEC considered the future of the plant and optimization of the plan when  
16 identifying the prioritized list of replacement items. The assessment found that the  
17 majority of the powerhouse’s 23 roofing areas are at the end of their service life  
18 and their replacement is recommended within the next five years.  
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20 Given the roofing systems age and noted condition, the development of leaks are  
21 likely and the probability of a “blow-off”, whereby the roofing system could become  
22 completely detached from the structure during periods of high wind, is greatly  
23 increased. While spot repairs can be enacted to address the occurrence of leaks,  
24 any repairs completed on the roof would be topical in nature and will not address  
25 the risk associated with the complete failure of the membrane. Detachment of the  
26 roofing membrane could prove disastrous, leaving the building contents fully  
27 exposed and/or resulting in significant damage to persons and/or equipment.