

- 1 Q. For each instance listed in the response to Request for Information  
2 NP-NLH-008, please provide evidence to indicate whether the additional thermal  
3 production for hydraulic reservoir support contributed to the amount of spill.  
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- 6 A. The following describes in more detail the causes of the spill events listed in Hydro's  
7 response to NP-NLH-008, by reservoir and discusses whether or not the additional  
8 thermal production was a contributing factor.  
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- 10 Granite Reservoir and Burnt Pond are relatively small storage reservoirs compared  
11 to their drainage areas and the channels joining them to the major reservoirs  
12 upstream and downstream are also relatively small. Under normal conditions, the  
13 water levels in Granite Reservoir and Burnt Pond are regulated by gate openings at  
14 the Victoria Control Structure and generation at Granite Plant and tend to vary  
15 independently of the major storages. Spill is a result of unexpected high inflows  
16 from rain and sometimes exacerbated by snowmelt. The levels of the two water  
17 bodies at the start of those two events were unrelated to thermal generation.  
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- 19 The capacity of the plant at Star Lake is relatively low compared to the annual  
20 inflows. The reservoir has filled and spilled in most of the years of its operation.  
21 Star Lake Plant ran a maximum capacity through the fall of 2015 and all through  
22 2016 (except for brief outages) and thus spill in April through July of 2016 was  
23 unavoidable and unrelated to thermal generation.  
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- 25 Cat Arm Reservoir was close to full at the end of 2015 and the plant ran at near full  
26 capacity through the late fall of 2015 until late March 2016. Its level was not

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1 especially low during the time of the increased thermal and its generation was not  
2 reduced. Thus the spill in October and November 2016 was unrelated to thermal  
3 generation.

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5 Long Pond is at the downstream end of the Bay d’Espoir system and the Bay  
6 d’Espoir Plant is the swing plant for the system. Long Pond is generally targeted to  
7 be at approximately 90 to 92% full to maximize head while keeping some storage  
8 room for unexpected inflow events. The increased thermal use in early 2016 was  
9 primarily as a result of low levels at Long Pond. The additional thermal generation  
10 was used to displace generation primarily at the Bay d’Espoir Plant. The water level  
11 in Long Pond varied as usual through the rest of the year and was at 90% of  
12 maximum normal level when Hurricane Matthew occurred on October 10 to 11,  
13 2016. Additional thermal generation in the spring had no impact on this level. The  
14 Long Pond area received in excess of 200 mm of rain in those two days which  
15 resulted in rapid rise in the water level and the requirement to spill. Thus the spill  
16 in October, November, and December 2016 was unrelated to thermal generation.