

1 Q. **Project: Holyrood - Replace Economizer Inlet Valves – \$521,100**

2 Reference: Report to the PUB, *“Replace Economizer Inlet Valves – Units 1 and 2,*
3 *Holyrood, April 2013”*

4 In section 3.2 of the report it states that unit 1’s economizer valve has been
5 inoperable since 2007 and unit 2’s economizer valve was repaired using the
6 Furmanite process in 2010. Section 4.2 of the report shows that the installation of
7 the two new valves is scheduled for 2015. This is two winter seasons prior to
8 Muskrat Falls being in full production.

9 a) Please explain the rationale for replacing unit 1’s economizer valve for two
10 years of operation after using it in a seized state for eight years.

11 b) Please explain the rationale for replacing unit 2’s economizer valve for two
12 years of operation after using it in a repaired state for five years.

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15 A. As stated in the capital budget proposal, the reason for replacing both Unit 1 and 2
16 economizer inlet valves is to meet the ASME B31.1 code which states: “the
17 feedwater piping for all boilers ... shall be provided with a check valve and stop
18 valve or cock between the check valve and the boiler” and “the relative locations of
19 the check and stop (or cock) valves, as required may be reversed on a single boiler
20 turbine unit installation”. The ASME B31.1 code is adopted under the Boiler,
21 Pressure Vessel and Compressed Gas Regulations under the Public Safety Act for
22 Newfoundland and Labrador. During the 2012 outage period at Holyrood, the
23 acceptable isolation was to use the check valve located in the feed water line to the
24 boiler and the stop valve from the No. 6 high pressure (HP) heater. During the
25 process of issuing work protection permits in the past outage season, the stop valve
26 on the discharge of the No. 6 HP heater feed water line to the boiler on both Units 1
27 and 2 failed to provide a complete isolation. The discharge valve on No. 6 HP heater

1 is an electrically actuated valve of the same nominal pipe size (NPS) of 10" as the
2 economizer inlet stop valve with the same pipe schedule (sch. 160). However,
3 replacing the discharge stop valve on the No. 6 HP heater would require replacing
4 the electric actuator as well as the stop valve. This would require purchasing a
5 different valve capable of having an actuator connection, a new actuator for the
6 stop valve and integrating the new valve with the control room. The replacement of
7 the economizer inlet valves on Units 1 and 2 would be a mechanical replacement
8 not requiring any other resources to complete the installation. By not replacing the
9 economizer inlet valves on Units 1 and 2, Holyrood is not in compliance with ASME
10 B31.1 nor the Boiler, Pressure Vessel and Compressed Gas Regulations under the
11 Public Safety Act for Newfoundland and Labrador.