

1 Q. Reference: Inspect Fuel Storage Tanks, Volume I, Section C, Page C-41
 2 *“While the inspection findings are not yet known, anticipated refurbishment costs*
 3 *have been included for the Hardwoods and McCallum sites.”*

4 Provide full details on the basis for the \$1,761,100 budget estimate including details
 5 on sites to be addressed in 2015.

6
 7
 8 A. The basis for the \$1,761,100 budget estimate including details on sites to be
 9 addressed in 2015 is shown in Table 1.

10
 11 **Table 1: 2015 Tank Inspection Cost Breakdown (\$000)**

Hardwoods					
Material Supply	Labour	Consultant	Contract Work	Other Direct	Sub-Total
-	108.0	-	720.8 ¹	12.5	841.3
McCallum					
Material Supply	Labour	Consultant	Contract Work	Other Direct	Sub-Total
-	72.3	-	200.0 ²	8.6	280.9
Port Hope Simpson					
Material Supply	Labour	Consultant	Contract Work	Other Direct	Sub-Total
-	35.3	-	90.0	8.2	133.5
L'Anse Au Loup					
Material Supply	Labour	Consultant	Contract Work	Other Direct	Sub-Total
-	35.3	-	83.0	8.2	126.5
Interest and Escalation					102.5
Contingency					276.4
TOTAL					1,761.1
Note 1: \$235,000 of the \$720,800 contract estimate has been carried to cover potential costs to complete identified tank upgrades. This amount is in addition to the estimated cleaning and inspection costs. Note 2: \$40,000 of the \$200,000 contract estimate has been carried to cover potential costs to complete identified tank upgrades. This amount is in addition to the estimated cleaning and inspection costs.					

1 Given the criticality of both tanks, Hydro has anticipated the upgrade costs when
2 preparing the contract estimates for Hardwoods and McCallum. Estimates
3 prepared for the completion of tank upgrades are based on both industry
4 experience and historical information provided by past inspections. This
5 information indicates that for vertical tanks, such as those at Hardwoods and
6 McCallum, the floors and ceilings of tanks are affected the most by oxidation.
7 Trapped water at the bottom and air voids above the fuel oil result in corrosion of
8 the tank floor and ceiling. Generally, the walls of the steel storage tanks do not
9 experience corrosion from the inside because they are continuously coated with
10 fuel oil through refilling.

11
12 As noted on page 3 of the report, the fuel supply for both McCallum and
13 Hardwoods is provided by a single tank. The return to service of these tanks is
14 critical to the reliable operation of the respective generating facilities, as without
15 them the facilities are unable to operate. Consequently, any required
16 refurbishments must be enacted upon immediately to enable the facility to resume
17 normal operation.