

1 Q. **Refurbishment of Day Tank.**

2 With reference to the 2022 CFM report (Schedule 1, Attachment 3), CFM states that in
3 accordance with the API 653 calculations, a minimum of 10% of the existing floor area is
4 required to be replaced. Is Hydro proposing a complete floor replacement? Did Hydro consider,
5 and cost, a 10% replacement?

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8 A. Due to the long lead time for floor plates (up to eight months), Newfoundland and Labrador
9 Hydro (“Hydro”) believes it is necessary to order sufficient plates and plan for a complete floor
10 replacement to mitigate the risk that, during work on the floor, the floor is discovered to be in
11 worse condition than expected and requires full replacement. In addition, the full floor
12 replacement will allow for inspecting and replacing any contaminated sand bedding under the
13 floor due to leakage of fuel oil, which will mitigate the environmental risk. Hydro estimated that
14 the budget for a partial replacement of the tank floor could reduce the budget by up to 20%.
15 The cost to clean, inspect, and prepare the tank for the floor work (including jacking up and
16 temporarily supporting the tank) constitutes the bulk of the cost in the proposed project, and
17 would be the same for 100% floor replacement as it would be for 10% floor replacement.
18 Because of this, the potential savings that would be associated with a partial versus a full
19 replacement is small. The corrosion rate of the tank floor critical area (see Figure 1) which was
20 repaired by patching in 2013, indicates that the remaining life of this area cannot exceed ten
21 years. As well, the API 653¹ does not permit installation of patches on top of patches in the
22 critical area; therefore, the previously-repaired sections of the critical area must be replaced.

23 Hydro will inspect and assess the condition of the floor during the proposed project. If the floor
24 is found in considerably better condition than expected, installation of patch plates in some
25 areas may be cheaper than 100% floor replacement, and may realize some cost savings. Hydro
26 will avail of any opportunity to reduce costs by reducing the amount of floor replaced.

¹ *Tank Inspection, Repair, Alteration, and Reconstruction*, API Standard 653, 2014.

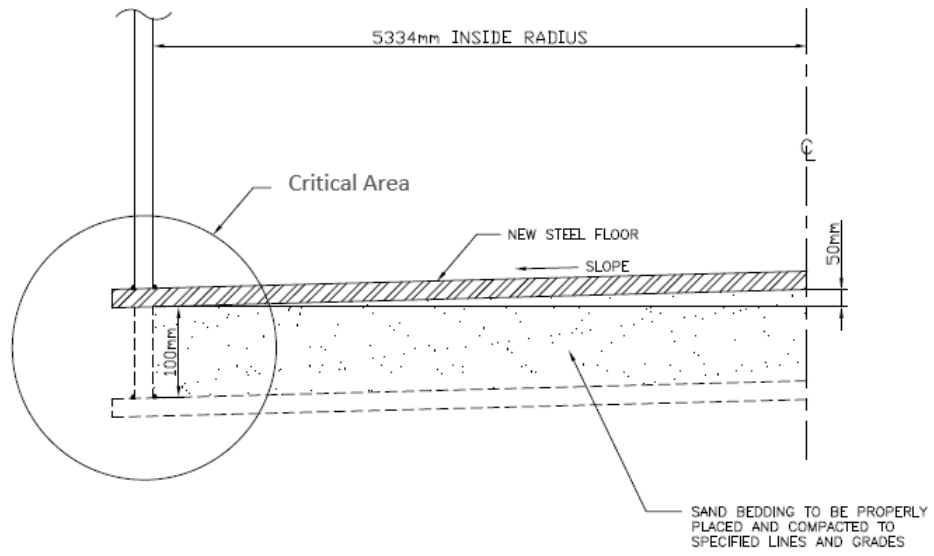


Figure 1: Corrosion Rate of Tank Floor Critical Area