Board Staff Interrogatory #151

Interrogatory

Reference:
Exhibit D2 / Tab 2 / Schedule 10 / Attachment 2q / pp. 2-3

Preamble:

OEB staff adapted the following table based on the scanned document provided at the above reference.

Question(s):

a) Please confirm the accuracy of OEB staff's adapted table below.

	Date	Total Cost with Contingency ($k)
Developmental Release	November 2006	36,863
Full Definition Release	June 2012	108,148
Partial Execution Release	August 2012	108,051
Full Execution Release	May 2013	110,015
Superseding Full Execution Release	March 2015	381,100
Superseding Full Execution Release	January 2018	498,500

b) For each release, starting with the Full Definition Release dated June 2012, please briefly outline key changes in project scope and / or design from the previous release.

c) For each release, starting with the Developmental Release, please indicate the corresponding estimate of Project Close-out Complete date.

Response

a) Confirmed.

b) The changes from BCS to BCS are explained with references to the BCS in Chart 1 below, except for the changes from 2006 to 2012. As both the evidence and the BCS make clear (See Ex. D2-2-10, pp. 37-38 and Attachment 2k), the 2006 BCS covered an operational improvement project that predated the decision to refurbish

Darlington. As a result, the 2006 and 2012 project scopes are fundamentally different.

Chart 1: Description of Scope Changes

BCS	Date	References for Discussion of Changes
Full Definition Release	June 2012	n/a
Partial Execution Release	August 2012	Ex. D2-2-10, Attachment 2n, p. 15 – no change in scope and minor cost reduction.
Full Execution Release	May 2013	Ex. D2-2-10, Attachment 2o, p.17 • Change in Scope – two-stage vapour recovery, standalone instrument air/service air • Increased EPC costs to design and execute additional scope • Reduced contingency
Superseding Full Execution Release	March 2015	Ex. D2-2-10, Attachment 2p pp. 2-3 and 17-20 • Increased OPG Support and Engineering due to longer schedule and greater scope • Increased design costs due to increased scope and integration of new EPC contractor to assume design and supply specifications • Contractor support during period between EPC contractors • Increased material costs for increased scope (e.g. piping, valves, HVAC system) and due to previous contractor underestimate of costs • Movement of building seven metres to the west and, design/construction of the pipe chase • Underestimate of effort for project management and specific activities (relocation of the buried services)

Superseding Full Execution Release	January 2018	Ex. D2-2-10, Attachment 2q pp. 16-18
		• OPG costs due to schedule extension and increased oversight – project management, engineering, interest and TRF support
		• Increased EPC contractor costs:
		  ○ Underestimation of effort
		  ○ Costs associated with redesign
		  ○ Scope changes
		  ○ Underreported costs

c) Please see the requested chart below:

1 **Chart 2: Estimate of Project Close-out Complete**

BCS	Close-out Date
2012 Developmental Release	2011
2012 Full Release Definition	April-2016
2012 Partial Release Execution	April-2016
2013 Full Release Execution	April-2016
2015 Superseding Release Execution Release	Nov-2017
2018 Superseding Release Execution Release	May-2020

2