Appendix
# TABLE OF CONTENTS

5 Incident Description ........................................................................................................... 3

6 Site Observations .................................................................................................................. 7

6.1 Unit 2 - June 2016 Site Visit .......................................................................................... 7

6.2 Unit 2 - August 2016 and October 2016 Site Visit ....................................................... 8

6.3 Unit 1 ................................................................................................................................ 10

6.3.1 Unit 1 - Maintenance Issues ....................................................................................... 10

6.3.2 Unit 1 - Tower Buckling ............................................................................................. 18

6.3.3 Unit 1 - Compression Failure ..................................................................................... 20

6.4 Unit 3 ................................................................................................................................ 23

6.4.1 Unit 3 - Lumber Weathering ....................................................................................... 23

6.4.2 Unit 3 - Gaps in Built-up Tower Leg Joints ................................................................. 25

6.4.3 Unit 3 - Fabrication Workmanship ............................................................................ 26

6.5 Unit 4 ................................................................................................................................ 28

6.5.1 Unit 4 - Installation Workmanship ............................................................................. 28

6.5.2 Unit 4 - Fabrication Workmanship ............................................................................ 35

6.6 General Observations of Graft Tube Formwork Material ............................................... 38

6.6.1 Identification of Lumber ............................................................................................. 38

6.6.2 Grade of Lumber ......................................................................................................... 39

7 Commentary on Project Timeline .......................................................................................... 40
INCIDENT DESCRIPTION

Unit 2 draft tube - View from the North West corner of unit, looking below
Picture from Nalcor
Taken May 22, 2016
Unit 2 draft tube - View from North West corner of unit, looking below

Picture from Nalcor

Taken May 28, 2016
Muskrat Falls Powerhouse — Four Draft Tubes

Picture from Nalcor

Taken May 29, 2016 at 15:44
Unit 2 draft tube - View from North West corner of unit, looking below

Picture from Nalcor

Taken May 30, 2016
6.1 Unit 2 - June 2016 Site Visit

Unit 2 draft tube - View of South East corner of unit, looking below
Picture from aDB Engineering
Taken June 15, 2016
6.2 UNIT 2 - AUGUST 2016 AND OCTOBER 2016 SITE VISIT

Unit 2 - Shoring Tower weathering
Picture from aDB
Taken August 25, 2016
Unit 2 - Shoring tower rotten lumber

Picture from aDB

Taken August 25, 2016
6.3 Unit 1

6.3.1 Unit 1 - Maintenance Issues

Unit 1 - Ice built up within ribs of panels A9

Picture from aDB

Taken June 16, 2016
Unit 1 - Fungi growth on lumber of tower B6

Picture from aDB

Taken June 16, 2016
Unit 1 - Fungi growth on lumber of tower B4

Picture from aDB

Taken June 16, 2016
Unit 1 - Decayed wood on tower B3
Picture from aDB
Taken June 16, 2016
Unit 1 - Decayed wood on tower B2
Picture from aDB
Taken June 16, 2016
Unit 1 – Mushroom growth on tower B3

Picture from aDB

Taken June 16, 2016
Unit 1 – Mushroom growth on tower B3

Picture from aDB

Taken June 16, 2016
Unit 1 - Dry rot on shoring tower
Picture from aDB
Taken June 15, 2016
6.3.2 Unit 1 - Tower Buckling

Unit 1 - Tower B2, buckling at top of post

Picture from aDB

Taken June 16, 2016
Unit 1 - Tower B3, buckling at top of post

Picture from aDB

Taken June 16, 2016
6.3.3 Unit 1 - Compression Failure

Unit 1 - Tower B3, buckling at bottom of post
Picture from aDB
Taken June 16, 2016
Unit 1 - Tower B1, compression failure below steel beam

Picture from aDB

Taken June 16, 2016
Unit 1 - Tower B5, compression failure below steel beam

Picture from aDB

Taken June 16, 2016
6.4 UNIT 3

6.4.1 Unit 3 - Lumber Weathering

Unit 3 - Installed shoring tower weathering
Picture from aDB
Taken June 16, 2016
Unit 3 - Installed shoring tower weathering

Picture from aDB

Taken June 16, 2016
6.4.2 Unit 3 - Gaps in Built-up Tower Leg Joints

Unit 3 - Built-up tower with a gap between two planks

Picture from aDB

Taken June 16, 2016
6.4.3 Unit 3 - Fabrication Workmanship

Unit 3 - Saw cut mark in lumber

Picture from aDB

Taken June 16, 2016
Unit 3 - Saw cut mark in lumber

Picture from aDB

Taken June 16, 2016
6.5 UNIT 4

6.5.1 Unit 4 - Installation Workmanship

Unit 4 - Tower misaligned with steel beam

Picture from aDB

Taken June 15, 2016
Unit 4 - Tower misaligned with steel beam

Picture from aDB

Taken June 15, 2016
Unit 4 - Missing shim between post and steel beam

Picture from aDB

Taken June 15, 2016
Unit 4 - Insufficient shim between post and steel beam

Picture from aDB

Taken June 16, 2016
Unit 4 - Tower brace installed on site – Insufficiently nailed

Picture from aDB

Taken June 15, 2016
Unit 4 - Tower brace installed on site — Insufficiently nailed

Picture from aDB

Taken June 15, 2016
Unit 4 - Damage to tower during formwork or tower alignment

Picture from aDB

Taken June 16, 2016
6.5.2 Unit 4 - Fabrication Workmanship

Unit 4 - Uneven tower top
Picture from aDB
Taken June 16, 2016
Unit 4 - Inappropriate location for built-up post joint

Picture from aDB

Taken June 15, 2016
Unit 4 - Inappropriate location for built-up column joint

Picture from aDB

Taken June 15, 2016
6.6 GENERAL OBSERVATIONS OF GRAFT TUBE FORMWORK MATERIAL

6.6.1 Identification of Lumber

Wood Identification Stamp
Picture from aDB
Taken June 16, 2016
6.6.2 Grade of Lumber

Nuts on Lumber
Picture from aDB
Taken June 15, 2016
CEI Shop - Nalcor Visit
Picture from Nalcor
Taken November 18, 2014
Draft Tube Unit 1 and 2

Picture from Nalcor

Taken September 19, 2015
Draft Tube Unit 2
Picture from Nalcor
Taken October 10, 2015
Powerhouse View from North Transition Dam
Picture from Nalcor
Taken March 16, 2016