## **Muskrat Falls Generation Project**

SAFETY PERFORMANCE - 2 YEARS LTI FREE 21 March 2019





# Take a NOTATION NOTATION



### Canada and NL - All Sectors

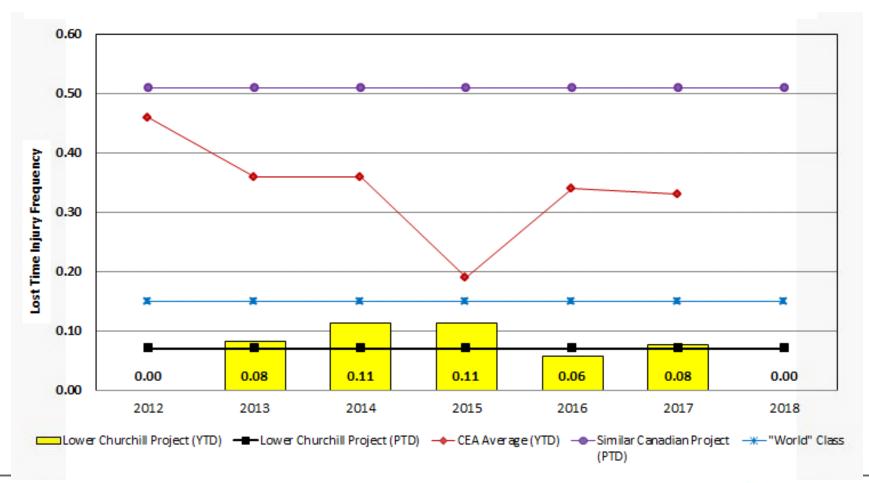
 The graphic shows LCP LTI Frequency compared to All Sectors (NL + Canada)

Lost Time Incident Frequency – LCP Project compared to NL and Canada (all sectors)

	2013	2014	2015	2016	2017	2018
Newfoundland & Labrador  *As per WorkplaceNL  LTI's x 100 / Employment Level)	1.6	1.6	1.5	1.5	1.5	Not Available
*As per Association of Workers' Compensation Boards of Canada LTI's for assessable employers / total estimated number of workers for assessable employers)	1.60	1.56	1.51	1.54	Not Available	Not Available
C1 Muskrat Falls Generation LTI's x 200,000/hours worked)	0.12	0.06	0.09	0.08	0.10	0.00
C3 HVDC Specialties LTI's x 200,000/hours worked)	0.00	0.00	0.00	0.00	0.14	0.00
C4 LIL/LTA LTI's x 200,000/hours worked)	0.00	0.36	0.20	0.06	0.00	0.00

# **LCP LTI Frequency Comparisons**

 The following graph shows LCP LTI rate compared to CEA, similar Canadian Sector and World Class Concept.





Sharing our ideas in an open and supportive manner to achieve excellence.

# **Teamwork**

# Open Communication Fostering an environment where information

moves freely in a timely manner.

# Honesty and Trust

Being sincere in everything we say and do.

Relentless commitment to protecting ourselves, our colleagues, and our community.

# Safety

# Respect and Dignity

Appreciating the individuality of others by our words and actions.

# Leadership

Empowering individuals to help, guide and inspire others.

Holding ourselves responsible for our actions and performance.

Accountability



# **Backup Material**

### **Lower Churchill Project – Safety Excellence**

- The overall Health, Safety and Well-Being of all persons who work on the Lower Churchill Project is our #1 Priority.
- Safety is a Core Value of the Project and it is a priority that's intentionally set and administered ahead of production, schedule and cost. Nothing is more important to us than ensuring that each person employed on the Project is not endangered as a result of working on the Lower Churchill Project.
- An injury and incident free workplace is our ultimate goal and we have developed and implemented strategic safety measures to attain this goal. The LCP Management Team is fully committed to the relentless pursuit of Health and Safety Excellence on the Lower Churchill Project.



The Lower Churchill Project Management
 Team has developed and implemented a
 significant number of Health and Safety
 Initiatives in an effort to attain an injury and
 incident free workplace.

 Some of these initiatives are included in the following slides.



- Project Wide Health and Safety Plan and associated Safety standards/procedures.
- Project Wide Emergency Response Plan.
- Drug and Alcohol Standard in keeping with Canadian D/A Model for Safe Workplaces (Includes Pre-Site Access, Post Incident and Reasonable Grounds).
- Safety Management System Audit Program and Audit Schedule (designed to evaluate Contractor Safety Management relative to Provincial OHS Regulations, Industry Best Practices and LCP Safety Plan).
- Incident Investigation and Reporting Standard (consistent with Canadian Electricity Association Standard for recording and measuring Occupational Illness and Injury).



- LCP Safety Department involved in Evaluation of Contractors Bid and Contractor Safety Plan Review prior to Work Commencement.
- Pre Site Access Kick Off Meetings, Onboarding and Orientation Process.
- In-Situ Security, Medical, Emergency Response and High Angle Rescue Staff/Services.
- Safety Absolute Program and Last Chance Agreement.
- Site Handbook and Work Rules.
- ¼ Site Steering Committee's (contractors involved).
- Technical Health and Safety Requirements/Guidance included in Contract Documents.



- Fit for Duty Requirements of Contractors
- Safety Promotion and Recognition Program (focused on reinforcement of positive safety culture)
- Dedicated LCP field safety advisors for oversight and implementation of LCP Health and Safety Plan.
- Field Focus Health and Safety Inspection Programs and Procedures
- Critical Risk Controls Protocols
- Development and Implementation of a ToolBox Talk Assist Program designed for Supervisors and Lead.
- FELT Leadership Program
- Circle for Safety Program



- Field Level Risk Assessment and Job Safety Analysis Program
- LCP Management Safety Walks
- Contractor Safety forum and information Sessions.
- Incident/Near Miss Trend analysis and associated Safety Stand Downs, Safety Reviews, meetings, bulletins, hazards alerts, Safety Campaigns, etc...
- LCP Benefits Incident Reporting and Notification System
- Site specific safety training and Supervisor training
- Permit to Work Program
- MOCK Emergency Response Drills and Exercise with Contractor engagement/involvement.

These and more safety measures have yielded World Class Health and Safety performance on the Lower Churchill Project. The following slides highlight this:



# **World Class Safety Performance**

- Nalcor Energy has established Safety & Health performance metrics based on Dupont's Management concepts for World Class Safety.
- Based on these concepts, Nalcor has identified Work Class Safety Performance to be 0.15 or below (sustained) as a Lost Time Injury Frequency Rate.
- The Lower Churchill Project has a cumulative LTI Frequency on 0.07. Specific performance year over year is reflected in the following slide.



# **World Class Safety Performance**

 The following graphic depicts LCP LTI Frequency since 2012.

PROJECT OVERALL - LOST TIME INCIDENT RATES								
YEAR	C1 LTI'S	C3 LTI'S	C4 LTI'S	Project Overall LTI's	Annual Project Hours	Annual Project LTI Rate		
2012	0	0	0	Ö	2,167,769	0.00		
2013	1	0	0	1	2,436,430	0.08		
2014	1	0	2	3	5,352,112	0.11		
2015	2	0	3	5	8,836,932	0.11		
2016	2	0	1	3	10,454,915	0.06		
2017	3	1	0	4	10,508,909	0.08		
2018	0	0	0	0	5,597,339	0.00		
2019	0	0	0	0	242,343	0.00		

16 LTI's X 200, 000/45, 596,749 = 0.07 LTI Cumulative Frequency for the Lower Churchill Project.



### **Construction Sector - NL**

 The graphic depicts LCP LTI frequency compared to NL Construction Industry

Lost Time Incident Frequency – LCP Project compared to NL Construction sector

	2015	2016	2017	2018	2019
Construction Industry Newfoundland & Labrador *As per WorkplaceNL (Rate calculation: # Lost Time claims x 100 / Employment Level)	1.9	1.8	1.9	Not Available	Not Available
C1 Muskrat Falls Generation (Rate calculation: # Lost Time Incidents x 200,000/hours worked)	0.09	0.08	0.10	0.00	0.00
C3 HVDC Specialties (Rate calculation: # Lost Time Incidents x 200,000/hours worked)	0.00	0.00	0.14	0.00	0.00
C4 LIL/LTA (Rate calculation: # Lost Time Incidents x 200,000/hours worked)	0.20	0.06	0.00	0.00	0.00

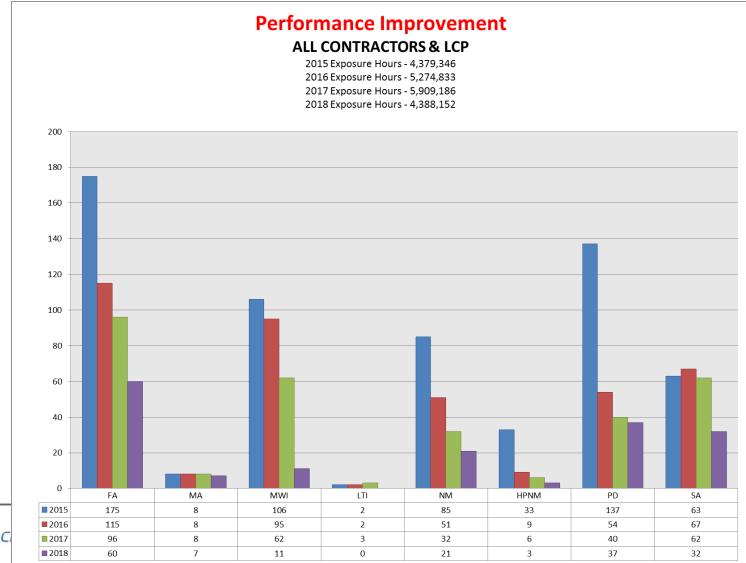
Note: Workplace NL uses an Incidence Rate based on 100 employees in the province.





# Safety Trends - Positive CIMFP Exhibit P-03941

• The following graphic depicts safety trends for 2015 to 2018 inclusive. As person hours increased the safety incidents decreased. Person hours decrease in 2018.





# Days without a Lost Time Incident

 The Lower Churchill Project has just celebrated a 2 year period without incurring a Lost Time Incident on any part of the Project.

 This accomplishment is outstanding and reflects the exceptional work that the entire LCP Project Delivery Team is doing to ensure an Incident and Injury Free Workplace!

