GO Transit Incident Investigation and Root Cause Analysis

Project
GO Transit Incident Investigation and Root Cause Analysis

Client
Metrolinx / GO Transit

Location
Toronto, Canada

Start Date
March 2016

End Date
August 2016

Duration
4 months

Services Provided
Root cause analysis, safety / rules and regulations review

Background

GO Transit, a division of Metrolinx, is the regional public transit system in Southern Ontario, Canada operating in the Greater Toronto and Hamilton Area. GO Transit's operations include an extensive network of train lines and bus routes that range as far as Niagara Falls to the south, Waterloo to the west, Peterborough to the east, and Barrie to the north. GO Transit carries approximately 69.5 million passengers annually across multiple modes.

GO's network includes seven commuter rail lines, 65 stations, including the iconic Union Station in Downtown Toronto. In fact, 91 % of the 194,000 train commuters ride to and from Union Station. GO trains are pulled or pushed by MP40 locomotives, which have the capacity to accommodate 12 bi-level locomotives. Each bi-level car has the capacity to seat 162 passengers and with substantial standing capacity as well. Trains are staffed with a qualified train operator, conductor and customer service ambassador.

Train operations, maintenance, and track maintenance are provided by third-party vendors who execute the day-to-day operations. These vendors are essential in operating, maintaining, and fixing equipment. Beginning in late 2015, the operator of the GO Transit trains experienced an increase in critical rule violations over an 8-month period.

Scope of Works

Due to Network Rail's strong safety record and industry recognition as one of the safest railroad in Europe, GO Transit asked Network Rail Consulting to conduct a number of independent root cause analyses and review the overall safety of their train operations.

Through an impartial analysis and investigative techniques, Network Rail Consulting provided concrete findings and actionable recommendations both for the short and long term.

To perform the root cause analysis on critical rule violations, our team underwent an exhaustive investigation and interviewing process that required listening, documenting, benchmarking, and analyzing each casual factor involved in the incident. The output was based on solely on our team's fact-based conclusions.

As part of this effort, the Network Rail Consulting team remained completely impartial. Best practice solutions were provided based on GO Transit's specific challenges and time scales for improvement implementation.

Key Project Outputs

The key output was the successful completion of the root cause analysis report which included a number of safety improvement recommendations. Specific outputs included:

▶ Detailed diary of incident findings for analysis

▶ Root Cause Analysis for each incident

▶ List of safety improvement recommendations

▶ Multiple versions of the Interim and Final Report

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