

DC METRO ELECTRICAL FIRE

Cause Map

1 Problem

What	Problem(s)	Electrical fire in Metro tunnel
	When	March 14, 2016
	Time	~4:30 AM
Where	Different, unusual, unique	?
	Facility, site	DC Metro tunnel near McPherson Square station
	Unit, area, equipment	Track power cables
	Task being performed	Transporting passengers
Impact to the Goals	Safety	Potential for injuries
	Customer Service	Significant disruption to commute
	Production/ Schedule	Delays on three Metro lines
	Property/ Equipment	Damage to equipment
	Labor/ Time	Inspections, investigation and repairs
	Frequency	Similar incident on January 12, 2015

DC Metro shut down for entire day after fire for inspections

A fire in a DC Metro tunnel early on March 14, 2016 caused delays on three subway lines and significant disruption to both the morning and evening commutes. There were no injuries, but the similarities between this incident and a deadly smoke incident on January 12, 2015 led officials to order a 24-hour shutdown of the entire Metro system for inspections and repairs.

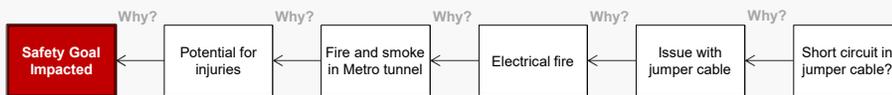
"The investigation into yesterday's [March 14, 2016] cable fire at McPherson Square is ongoing. As a preliminary matter, the conditions appear disturbingly similar to those in the L'Enfant incident of a year ago, and our focus is squarely on mitigating any risk of a fire elsewhere on the system."

"While the risk to the public is very low, I cannot rule out a potential life safety issue here, and that is why we must take this action immediately. When I say safety is our highest priority, I mean it. That sometimes means making tough, unpopular decisions, and this is one of those times. I fully recognize the hardship this will cause."

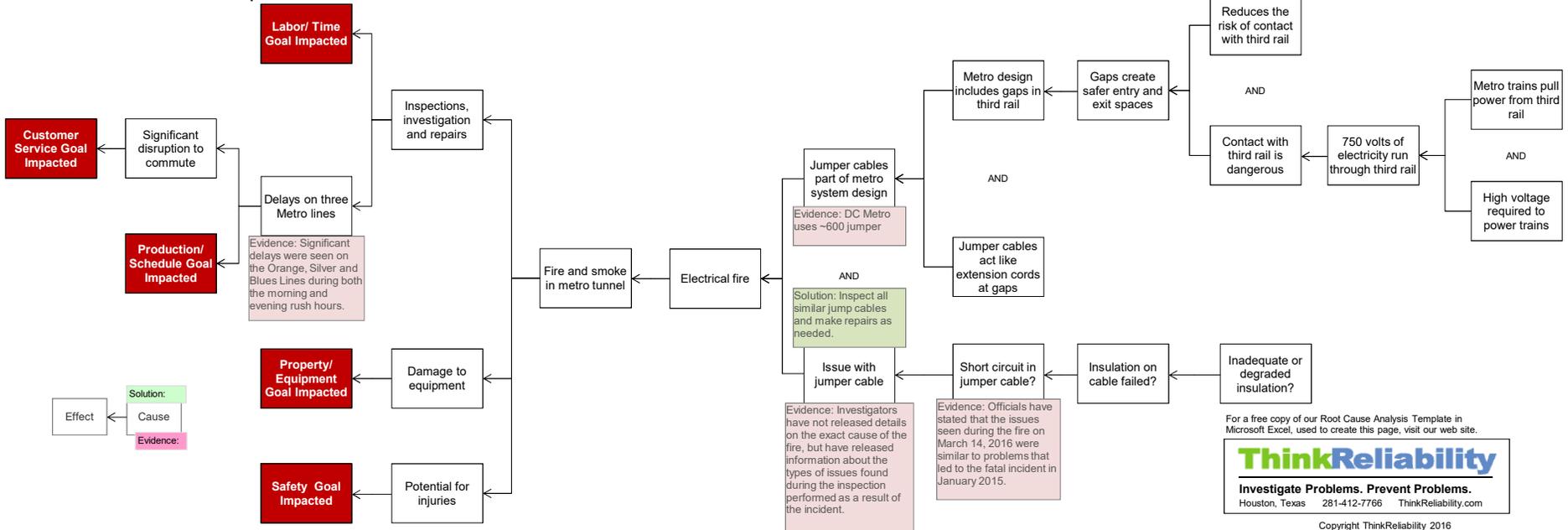
- DC Metro General Manager/CEO Paul J. Wiedefeld

2 Analysis

Basic Level Cause Map - One simple way to start an investigation is



Intermediate Level Cause Map - Add detail as information becomes available.



For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.

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3 Solutions

The final step in the Cause Mapping process is to develop and implement solutions that will reduce the risk the problem will reoccur again in the future. In this example, Metro officials determined that risk of another fire was high enough that all jumper cables needed to be inspected immediately. The DC Metro system was shut down on Wednesday March 16 (causing a commuting nightmare for many) and all 600 jumper cables were inspected. Twenty-six issues were identified and repaired. Three locations had severe enough damage that Metro would have immediately stopped running trains through them if the extent of the damage had been known.