

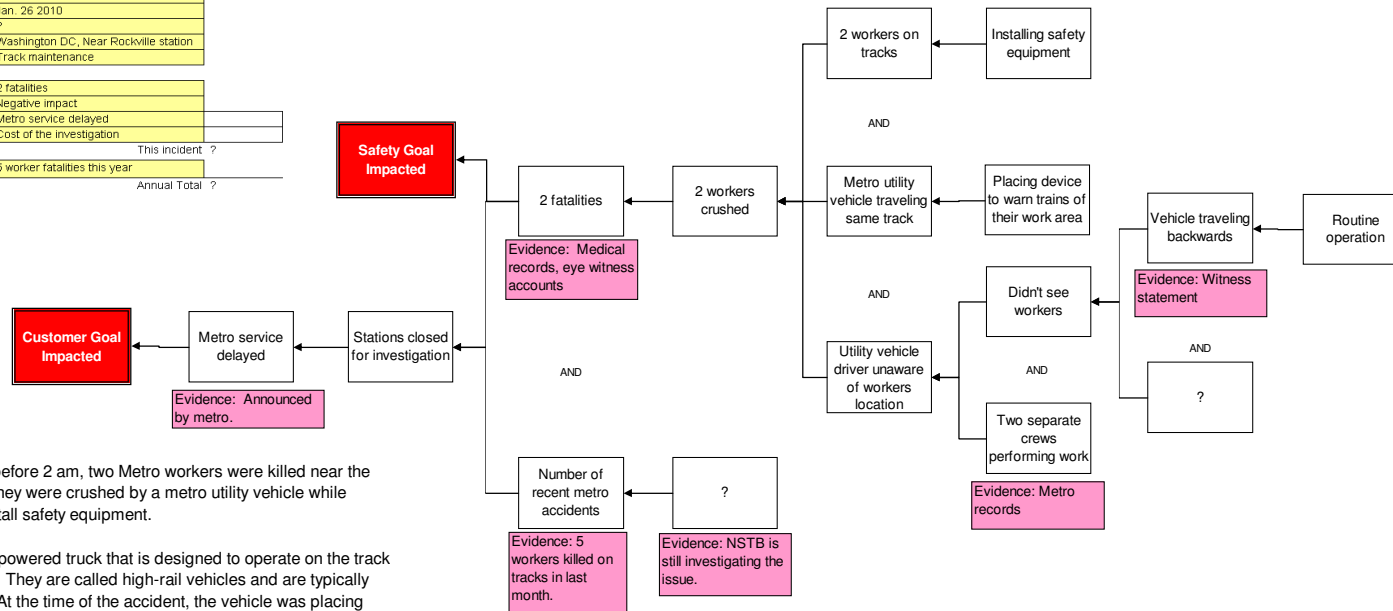
**Metro Worker Fatalities**  
**Washington DC**  
**January 26, 2010**

A thorough root cause analysis built as a Cause Map can capture all of the causes in a simple, intuitive format that fits on one page.

Even more detail can be added to this Cause Map as the analysis continues. As with any investigation the level of detail in the analysis is based on the impact of the incident on the organization's overall goals.

**Step 1. Outline the Problem**

<b>What</b>	Problem(s)	2 Metro workers killed
<b>When</b>	Date	Jan. 26 2010
	Differences	?
<b>Where</b>	Physical Location	Washington DC, Near Rockville station
	Work Being Done	Track maintenance
<b>Impact to the Goals</b>		
	Safety	2 fatalities
	Cost: Services	Negative impact
	Production: Schedule	Metro service delayed
	Material, Labor Cost	Cost of the investigation
	Frequency	This incident ? 5 worker fatalities this year Annual Total ?



On January 26, 2010 just before 2 am, two Metro workers were killed near the Rockville metro station. They were crushed by a metro utility vehicle while working on the track to install safety equipment.

The utility vehicle is a gas powered truck that is designed to operate on the track when electricity is shut off. They are called high-rail vehicles and are typically used to carry equipment. At the time of the accident, the vehicle was placing devices that tell approaching trains that there is a work crew in the area.

Many details of this accident are not available yet, but a preliminary root cause analysis can be started. The basic information can be documented in an Outline and an initial cause map can be started.

The men killed and the workers in the vehicle were not part of the same crew and it's not clear why the driver of the truck wasn't aware that workers were in the area. At the time of the accident the vehicle was traveling in reverse, which is a routine mode of operation.

Safety regulations require all vehicle operators to be informed about work crew locations, but it isn't clear if that is being done effectively.

The National Transportation Safety Board (NTSB) has begun to investigate this incident and more details should be available as their investigation progresses. The NTSB is currently reviewing employee work history and training and gathering all relevant data such as radio recordings and work procedures.

The DC Metro system has the worst safety record of any metro system in the country. Five workers have now been killed while on the tracks in the last seven months. There was also a metro train accident that killed 9 people on June 22, 2009.

**Cause Map**  
**Intermediate Level**



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