

D.C. Metro Train Collision June 22, 2009

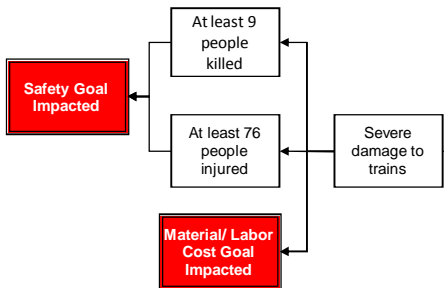
Yesterday I posted a blog about the Metro train collision in Washington, D.C. More information on the accident has been released today, so we can use this information to update the Cause Map. (Changes are shown in green.)

Step 1. Outline the Problem

What	Problem(s)	Train collision
When	Date	June 22, 2009
	Differences	Lead car was "B" configuration
Where	Physical Location	Washington D.C. Metro's Red Line
	Work Being Done	Transporting passengers
Impact to the Goals		
	Safety	At least 9 people killed
		At least 76 80 people injured
	Material, Labor Cost	Severe damage to trains
	Frequency	Last fatal D.C. Metro collision in 1982

The injury count has increased to at least 80, so we update the outline. Also, we have discovered that the lead car in the train was a "B" car. (Metro cars are put in pairs, with the lead car ordinarily being an "A" car.) While this might be a cause of the accident, we don't yet have enough information to link it on our Cause Map. Instead, we can add it to the outline as a "difference".

Investigators have discovered that the operator had successfully engaged the emergency brake. Our previous information, obtained from the unofficial testimony of passengers on the train, was that there was no attempt to stop or slow the train. Now that new evidence contradicts the old evidence, we can remove "No attempt to stop/slow train" as a cause. Instead, the cause for "Train rear-ended stopped train" is "Striking train did not stop".



One of the causes for "striking train did not stop" is that the emergency brake was ineffective. It was ineffective because it was pulled too late, because the operator was not aware of the stopped train, or because the braking system was not functioning, or both. The causes for "operator unaware of stopped train" have not changed (yet) since our previous version. However, it has been released that the crash happened on a curve, which is a possible cause for the operator being unable to see the other train. Right now there is no evidence to show that the operator was otherwise distracted.

Cause Map Detail Level



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