

FREIGHT TRAINS COLLIDE HEAD-ON IN ARKANSAS

"We will be looking at train signal information. We're going to be looking at the train braking, the railroad track and inspection information. We'll be looking at train operations and how the crew operated the train."

-Mike Hiller, NTSB investigator

1 Problem

What	Problem(s)	Train collision, 2 killed
When	Date	August 17, 2014
	Time	2:36 AM
	Different, unusual, unique	??
Where	Facility, site	Hoxie, Arkansas
	Unit, area, equipment	Freight trains
	Task being performed	Transporting freight
Impact to the Goals		
	Safety	2 killed, 2 injured
	Environmental	Potential for release of toxic chemicals
	Customer Service	500 evacuated
	Regulatory	?
	Production/ Schedule	Delay in train schedules
		Highways closed
	Property/ Equipment	Significant damage to trains and freight
	Labor/ Time	Significant response effort/ investigation required

3 Solutions

The final step in the Cause Mapping process is to develop solutions that can be implemented to reduce the risk of a similar problem recurring in the future. The NTSB is investigating this issue and talk of solutions is premature at this point. Once more is known about the causes that contributed to this issue, the lessons that are learned can be used to develop solutions.

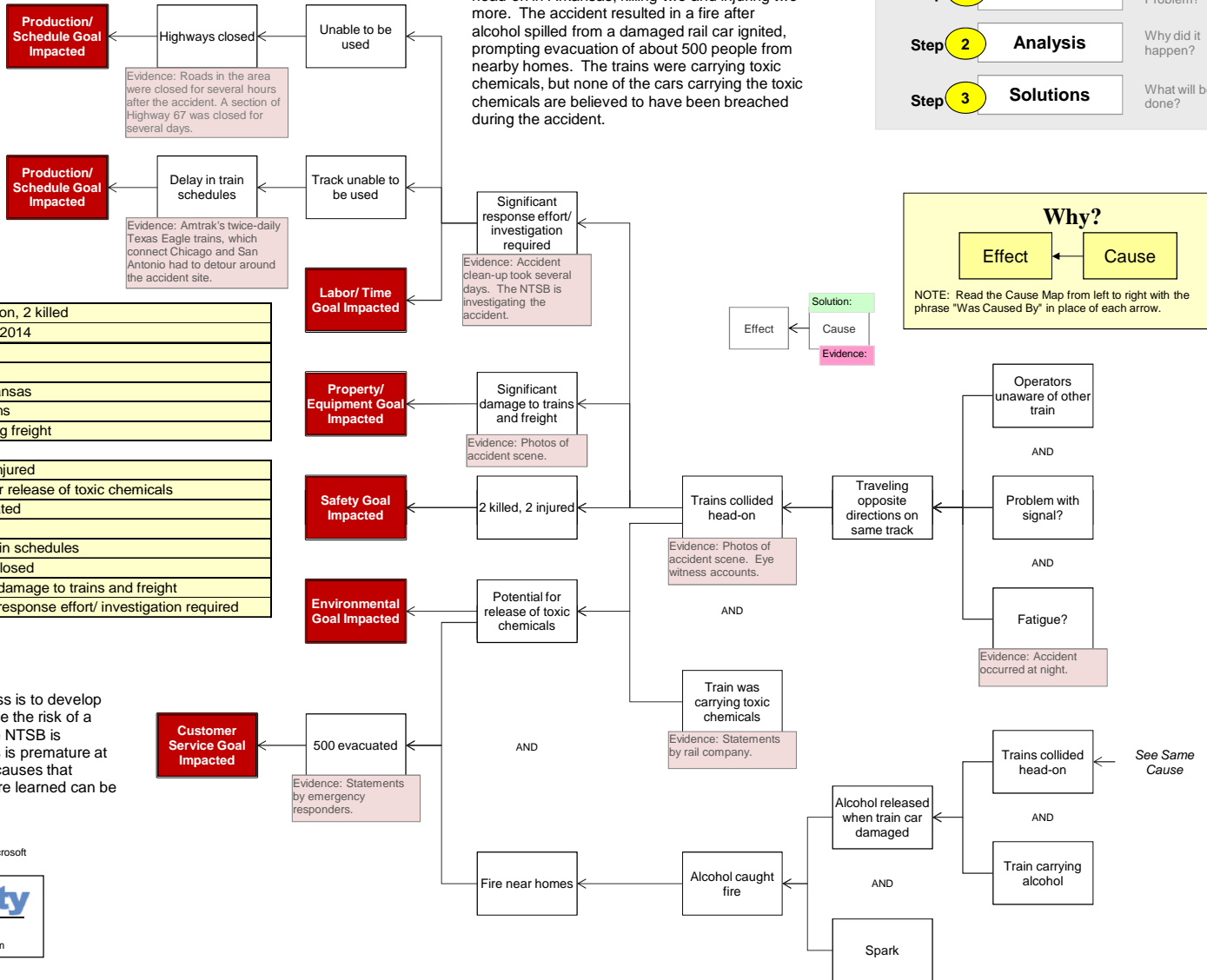
For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.

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2 Analysis



On August 17, 2014, two freight trains collided head-on in Arkansas, killing two and injuring two more. The accident resulted in a fire after alcohol spilled from a damaged rail car ignited, prompting evacuation of about 500 people from nearby homes. The trains were carrying toxic chemicals, but none of the cars carrying the toxic chemicals are believed to have been breached during the accident.

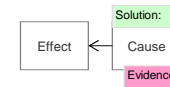
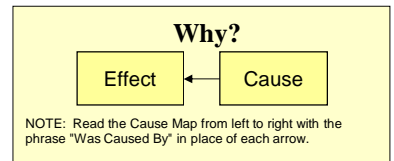
Cause Map

Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

CAUSE MAPPING

Problem Solving • Incident Investigation • Root Cause Analysis

- Step 1 Problem** - What's the Problem?
- Step 2 Analysis** - Why did it happen?
- Step 3 Solutions** - What will be done?



See Same Cause