

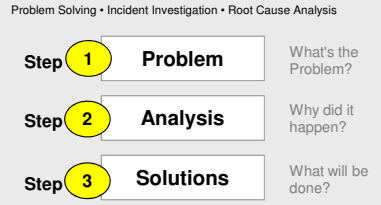
1 Problem

EXPLOSION KILLS 75

Cause Map

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

CAUSE MAPPING



What When	Problem(s)	Auto parts factory explosion
	Date	August 2, 2014
	Time	7:37 AM
	Different, unusual, unique	High levels of dust
Where	Facility, site	Kunshan, China
	Unit, area, equipment	Auto parts factory
	Task being performed	Polishing hubcaps

Metal Dust Believed to Be Responsible

75 workers were killed and about 186 were injured by an explosion at an auto parts factory in Kunshan, China. At the time, the workers were polishing hubcaps, a process that is known to create metal dust that can lead to dust explosions if safety regulations aren't carefully followed.

"The explosion at the factory in Kunshan illustrates once again that although there are many laws and regulations outlining health and safety standards in the workplace those standards are not properly enforced by local authorities."

- Geoffrey Crothall, China Labor Bulletin

Impact to the Goals

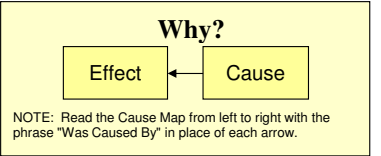
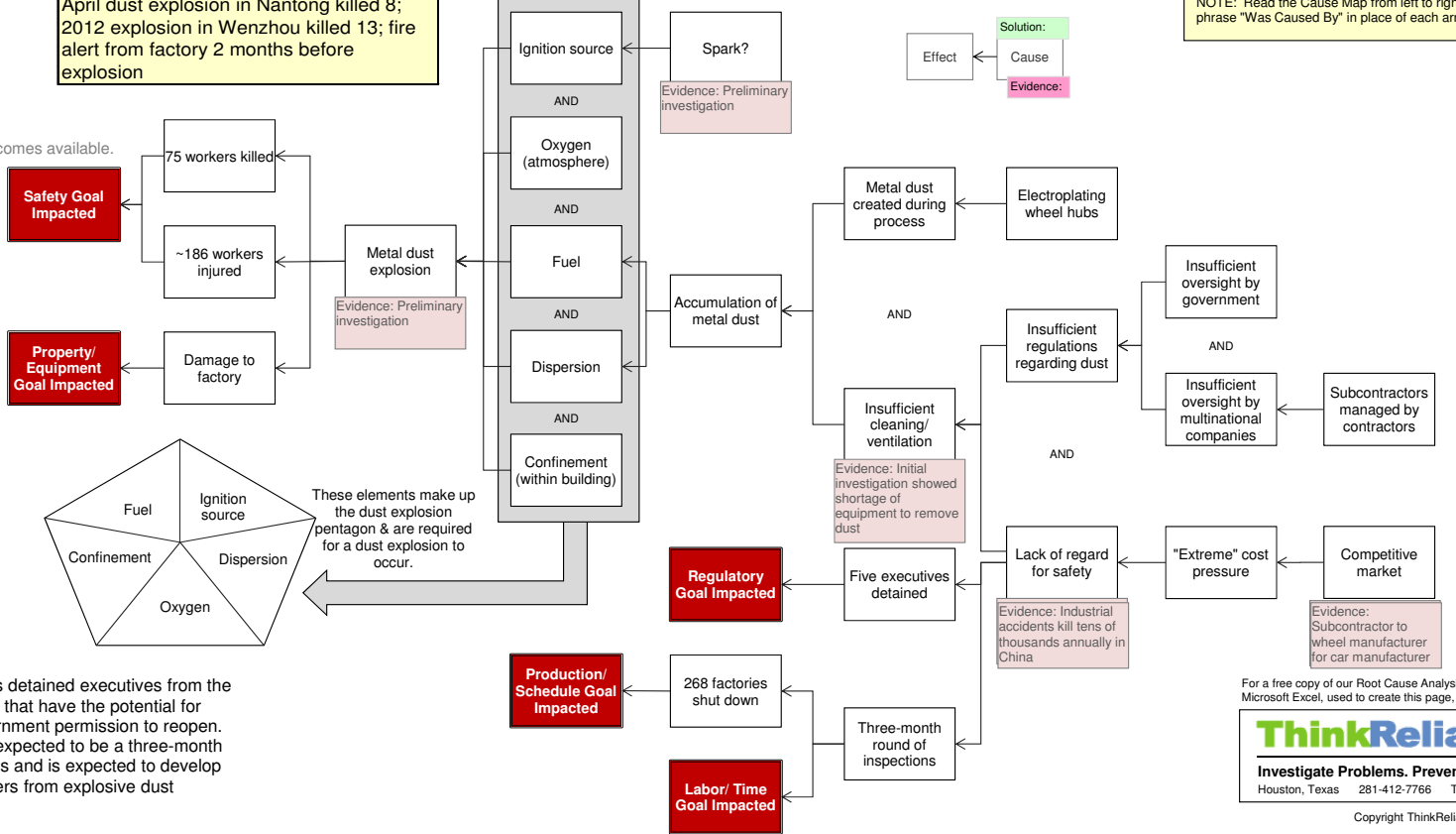
Safety	75 workers killed ~186 workers injured
Regulatory	Five executives detained
Production/ Schedule	268 factories shut down
Property/ Equipment	Damage to factory
Labor/ Time	Three-month round of inspections

Frequency

April dust explosion in Nantong killed 8; 2012 explosion in Wenzhou killed 13; fire alert from factory 2 months before explosion

2 Analysis

Cause Map - Add detail as information becomes available.



3 Solutions

In response to the explosion, China has detained executives from the company, and has closed 268 factories that have the potential for similar issues until they are given government permission to reopen. The government is conducting what is expected to be a three-month round of investigations of these factories and is expected to develop regulations that will better protect workers from explosive dust conditions.

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

