

Massachusetts Gas Explosions

The Massachusetts communities of Lawrence and Andover were rocked by a series of explosions and fires, resulting in one fatality, 21 injured, the destruction of five homes and damage to more than 113 other houses. The incident, which happened around 4 p.m. on Sept. 13, 2018, led to the evacuation of thousands of residents and more than \$1 billion in damage.

5-Why Cause Map



Start Simple An analysis breaks a problem down into basic cause-and-effect relationships. The 5-Why Cause Map (above) is a simple and quick way to start an investigation, but with the exception of the simplest incidents you need to continue asking questions and expand the Cause Map. Adding more causes naturally leads to a wider range of solutions being considered. A quick 5-why may focused on what caused the leak and missed the fact that the natural gas leak was undetected because the gas is odorless and colorless.

Expand as Needed By continuing to ask "why" questions, the 5-why Cause Map quickly becomes a 46-why Cause Map, including more useful detail.

46-Why Cause Map

