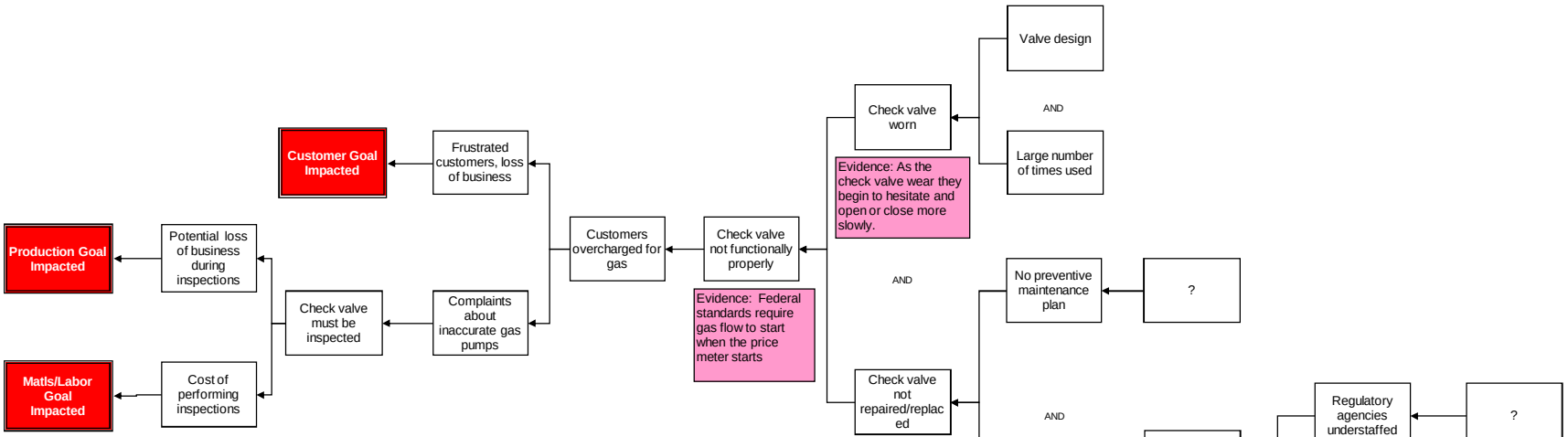
Gas Pump Glitch
Associated Press Article
April 25, 2008



An Associated Press article, published on April 25, highlighted a common, often ignored problem of customers getting a different amount of gas then what they paid for. Gas pumps contain a check valve that allows gas to start flowing at the same time the price meter starts. As the check valves age, they can begin to hesitate and wait a period of time before gas flow begins. This results in the consumer being overcharged because the price meter is turning before gas is flowing. Worn check valves usually only cost consumers pennies per fill-up, but there have been instances of overcharges of 30 to 40 cents a gallon. This issue doesn't cost the consumer large amounts of money, but it adds frustration to a public already aggravated by record high gas prices.

To be fair, it should be mentioned that worn check valves sometimes help the consumer as well. When a check valve hesitates at the end of a fill up, the price meter is stopped and a small amount of gas will continue to flow. Also, to clarify, this isn't a case of gas stations purposely gorging consumers. It's a situation where a common piece of machinery is wearing out and not functionally properly.

Cause Map
Detail Level

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Why?
Effect ← Cause

NOTE: Read the Cause Map from left to right with the phrase "Was Caused By" in place of

To help prevent these types of errors, gas pumps are regularly inspected to ensure that consumers are charged for the correct amount of gas. Regulations allow gas pumps to pass inspection if they overcharge by no more than 6 cents for every five gallons delivered. Most states require gas pumps to be inspected every year to ensure accurate measurement of gas delivered. Many counties try to inspect more frequently, but have difficultly because of staffing shortages and financial pressure.

This cause map is intermediate level root cause analysis of the worn check valves in gas pumps. It was built using the facts that were available in media reports. As more details are known, the Cause Map can be expanded.