

# The Hidden Costs

*While saving a few bucks can seem tempting, you can't put a price on safety.*

BY PHIL KIMBLE

In today's business environment, companies need to work smarter, faster, more efficiently. Processes such as Lean Manufacturing and Just In Time manufacturing help companies stay competitive and profitable. Even when one thinks they have all of the facts, the lure of saving a few dollars today can lead to huge safety issues later on.

For example, at a processing plant, one of eight assemblies that collects heated water from processing equipment developed a very small leak. These lines connect to a heat exchanger where the water is chilled and pumped back to the processing equipment. In an effort to avoid future production interruptions, the decision was made to change all eight assemblies.

With the leak temporarily under control, the department manager supplied all pertinent information along to the purchasing department. He requested exact replacements because these assemblies had served him well for many years. The purchasing agent received quotes with similar pricing from his regular suppliers. He then remembered the salesman from a new outfit in town who stated he could beat any price. To the purchasing agent's amazement, the new guy's price beat his regular vendors by 40 percent. When questioned, the new salesman revealed that his quote met all requirements except that the hose had a 150-degree Fahrenheit temperature rating instead of the requested 200°F. Since the stated operating temperature was 120°F, it didn't seem like a problem. The order was placed.

The minute the new assemblies arrived, the department manager was on the phone with the purchasing agent to find out why his instructions had not been followed. During this conversation, the purchasing agent replied that the new assemblies met every criteria as stated, and then he gloated about how much money he saved the company. Fearful that another line failure might interrupt production, the department manager grudgingly decided to install the new assemblies.

At the end of the next day, workers shut down the processing equipment including the chiller. Before the daily cleanup was complete, one of the new assemblies ruptured, spraying a worker with scalding hot water. The company's investigation into the accident revealed that the shut-down process did not follow the equipment manufacturer's proce-



cedure for stopping the processing equipment first and the chiller last. The workers shut down the chiller before the processing equipment because it was easier. The residual heat in the processors raised the water temperature to 180°F at the collectors. The hoses on the new assemblies, which were made of a thermoplastic material, literally melted.

Temperature spikes, although harder to detect, can be just as dangerous as pressure spikes. Strive to ask questions beyond the obvious. The prospect of being a "hero" can cloud one's judgment while inadvertently putting others in harm's way. Safety trumps savings every time. ■