

## Unapproved Procedure Change = Fire

November 2004

Visit the CSB document on MOC at:

[http://www.csb.gov/safety\\_publications/docs/moc082801.pdf](http://www.csb.gov/safety_publications/docs/moc082801.pdf)

### What Happened?



This small stripper was used to separate a light solvent from a heavier oil. Annually, the unit was shut down for internal inspection and cleaning. The practice had been to allow 24 hours for cooling down before starting maintenance work and opening the stripper.

This time, the shutdown team decided to shorten the cool down period to 12 hours to reduce the time the unit would be out of service.

The unit was shut down, allowed to cool for 12 hours and then the stripper was opened. Almost immediately, smoke began to come out of the open manway. There were no visible flames and no one was injured, but it was obvious that something had caught on fire.

### Why did this Happen?

*A Long Standing Procedure was Changed without Understanding ALL Consequences!*

? It was believed that the 24 hour cool down period was to protect workers from hot surfaces. No one understood that those same hot surfaces might cause residual solvent or oil to catch on fire.

? Oxygen was introduced in to the vessel before the temperature had dropped below the autoignition point of some of the residual materials. This completed the fire triangle by adding oxygen to the fuel and heat already present.

### What you can do

▲ Understand the reason for each processing and maintenance preparation step.

**Don't assume—KNOW!**

▲ Know how and when to use your facility's management of change (MOC) process. Ask to be sure that all changes have been reviewed and approved **before taking action**.

▲ The process safety information should contain autoignition temperatures if the process operates above them. If your process does, make sure you are well below those temperatures before allowing air to enter.  
**Equipment containing chemicals must be cooled below the autoignition temperature before opening!**

PSID members see: Free Search—MOC and Free Search—Vacuum Column

**Thoroughly Evaluate Changes—Know, Don't Guess the Consequences!**