

Delayed Coker Unit Fire Problems

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AND SOLUTIONS!

Fact

- In the last seven years 15 refinery workers have died in coker unit fires.
- In 1998 alone, eight refinery workers were killed in five separate coker fires.
- Beyond the tragedy of lives lost, these disasters represent more than \$1 billion in property loss **last year alone**, not counting lost production.

- Drum
- Derrick
- Cutting Deck
- Switching Deck
- 750 GPM Oscillating Monitor

- Ground Level
- Sprinkler and Stand Pipe
- Booster Feed Manifold

- 8" pipe elbow failed at grade level allowing heated (750) reduced crude to escape at 250 PSI for nearly 6 minutes before igniting.

- When it flashed it flashed from grade level all the way up to the Cutting Deck (151 feet).
- The worst fire was at the top of the unit where a 6" quench oil line carrying either naphtha or diesel stock ruptured

- What appears to be steam is actually yellow smoke from the galvanized metal used in the drilling and derrick.

- It took only 10 minutes for a derrick to fail!

- Units have been destroyed in recent years due to the lack of ability to reach them with an adequate fire stream.

What is the Solution?

Big Water !

Big Guns !

- Not just big guns, but big guns that have the ability to
 - go vertical,
 - go below horizontal,
 - be able to move 360 degrees around
 - and a true full fog to protect itself and its operators.













