

Process Safety Beacon

Messages for Manufacturing Personnel

April 2002





10,...9,...8,...7,..."Houston, we have launch!

The Incident....

An operator was supposed to remove one of the two FM-200 fire suppression cylinders from service, but things didn't go exactly according to plan. As you can see in the first picture. there's only one of them. During removal of its twin, the cylinder managed to escape and make a clean get away. clear through the ceiling and onto the roof! Look carefully at the second picture and you can identify the need for roof repairs!

The cylinder that got away

How'd that happen?

Compressed gas cylinders have an enormous amount of stored energy just waiting to be mishandled, dropped, or vigorously abused. If this energy is released suddenly, they act like a jet engine; not just like - they pretty much are a jet without the combustion process. Exhaust vapor from a broken valve creates a force that moves the jet, or cylinder here, in an opposite direction of the exiting vapor. It was fortunate that this cylinder selected to travel up instead of across the room. The pictures speak for themselves — the forces involved are significant, and major damages to property and people are potential outcomes when this energy is released suddenly.

What do you look for?

Remember this story and the pictures next time you're working with compressed gas cylinders. They have an incredible amount of power-jet power. That's why it's important to practice all those precautions you hear about – keep them chained up, make sure valve covers are in place when moving, follow manufacturer's recommended practices, etc. And especially, don't allow something to occur which knocks the valve off. If that happens it could be "Houston, we have a problem".

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