



Safety Alert

From the International Association of Drilling Contractors

ALERT 00-30

SERIOUS FIRE EXTINGUISHER ALERT

WHAT HAPPENED:

Recently a person on Fire Watch was killed when he attempted to use a hand held cartridge type fire extinguisher to extinguish a small smoldering fire. When the internal CO₂ cylinder was opened (225 psi/17 bar) to energize the fire extinguisher, part of the bottom of the fire extinguisher cracked open striking the individual in the chest. A similar fatality and other similar near miss incidents have happened in the past with this type of fire extinguisher.

WHAT CAUSED IT:

The cause of the incident was corrosion of the outer cylinder under the rubber protective foot. Water entered the rubber lining causing corrosion. The vendor had distributed a warning to all owners of these types of fire extinguishers saying that annual inspection must include removing the rubber foot to conduct a visual inspection of the bottom of the cylinder. Although fire extinguisher training must include a warning and user instruction to avoid such a hazard, in this case however the individual was a professional, certified Fire Watch.

CORRECTIVE ACTIONS:

- Fire Extinguishers should be inspected at least monthly.
- Extra attention must be taken in the inspection of fire extinguishers that are unprotected from the weather or are stored in areas of high humidity such as around a drilling rig
- Fire extinguishers should be mounted off of the deck in a mounting device that reduces the chances of moisture from being trapped under the fire extinguisher base.
- In addition, the vibration of engines and machinery should be considered and the fire extinguishers mounted in such a way that the effects of machinery vibration on the fire extinguishers is kept to a minimum. For example, free standing mounts or mounts on walls or elsewhere away from engine or machinery skids.
- Employees must be instructed to look for signs of corrosion on all types of fire extinguishers used at their work site.
- A person who is trained and considered to be competent in fire extinguisher inspection should inspect fire extinguishers per the manufacturer's specifications (or regulatory requirements).
- Fire extinguishers that utilize a cartridge to charge the main fire extinguisher cylinder should be handled with care when activating them.
 - The fire extinguisher should be placed on the deck at arms length from the body.
 - Point the top of the extinguisher away from the body while holding the handle and hose in one hand.
 - Trigger the CO₂ charging cylinder with the other hand.
 - **Do not energize these types of fire extinguisher near the body.**
- Consideration should be given to using constant pressure type of fire extinguishers as opposed to CO₂ cartridge charging type.
- Fire extinguisher cylinder should be tested as per applicable industry and regulatory standards.

Be sure to remind your employees and subcontractors of this hazard.

The Corrective Actions stated in this alert are one company's attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices.
Copyright © 2000 International Association of Drilling Contractors. All Rights Reserved

Issued October 2000