

Safety Alert

Number: 21-11

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Subject: Fatality Caused by Explosion of Corroded Fire Extinguisher

What Happened / Narrative

A person discharged a corroded handheld cartridge-type, dry chemical powder fire extinguisher which had been condemned during an annual third-party inspection. When the internal carbon dioxide cylinder was activated to energize the fire extinguisher, the unit ruptured at the corroded base, exploded, and struck the IP causing critical head injuries.

Why Did it Happen / Cause

- The base of the extinguisher was corroded.
- Although condemned during a third-party inspection, the extinguisher was not removed from the rig.
- The individual discharging the extinguisher did not recognize the danger involved.

Corrective Actions Taken / Recommendations

- Minimize Corrosion: During monthly inspection, rig personnel shall inspect fire extinguishers exposed to the weather for corrosion. Fire extinguishers shall be mounted off the deck/floor in manufacturer approved mounting devices that reduce the chance of moisture from being trapped under the fire extinguisher base.
- Third Party Inspections and Condemnations: Fire extinguisher disposal shall only be conducted by qualified third-party personnel as per the manufacturer's specifications (or regulatory requirements). Third party fire equipment inspection companies shall manage condemned fire extinguishers from time of identification until the time they are removed from the rig. Condemned fire extinguishers shall never be discharged by rig personnel.
- Use of Cartridge-Type Fire Extinguishers that utilize a cartridge to charge the main fire extinguisher cylinder shall be handled with care: The fire extinguisher should be placed on the deck at arm's 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 carbon dioxide charging cylinder with the other hand. Do not energize these types of fire extinguishers near the body.
- Consideration should be given to using stored pressure type fire extinguishers as opposed to the carbon dioxide cartridge type.

Photographs / Supporting Information



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