

Safety Alert

From the International Association of Drilling Contractors

ALERT 00-09

GROUND/BONDING WIRE

WHAT HAPPENED:

A contract service company that cleans tanks and vessels experienced an explosion inside a special high-capacity vacuum truck used to collect solids and very thick liquids.

WHAT CAUSED IT:

Lack of a proper grounding device was determined to be the primary cause of this incident. The truck did not have a bond wire to attach to the vessel being cleaned. The oil producer that reported this incident stated that although this particular incident did not involve a rig, a similar incident could have easily happened on a rig. Static electricity from the lack of bonding between the cyclone chamber and the cyclone insert was suspected as the source of ignition. Believed to be another major factor was the product being vacuumed -- light gassy crude. Normally these specialized trucks are used for thick sludge or solids. With light, gassy crude oils, a standard vacuum truck should be preferred.

CORRECTIVE ACTIONS:

- 1. It is critical that proper grounding devices are utilized and are properly attached when working with flammable liquids.
- All trucks performing this service should be bonded to the vessel they are collecting from at all times.
- 3. All trucks performing this service should verify that the cyclone insert makes good contact with the cyclone with the cyclone chamber.
- 4. Specialized high-capacity trucks should be used primarily on heavy, thick materials or loose solids.
- Use of these specialized trucks in light oil or other light end service should be avoided if possible. Standard vacuum trucks may be more effective with light oil service and present fewer hazards.

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.