

Safety Alert

MMS

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Contact: Frank Pausina
504-736-2560

Stainless Steel Tubing-Related Fires

In two separate incidents, tubing-related failures resulted in fires that caused damage to their respective facilities.

In one incident, the investigation revealed that a ½-inch stainless steel tubing between the glycol pump and the glycol tower parted from a fitting located at the base of the glycol tower and upstream of the tower SDV, resulting in glycol, condensate, and gas spraying onto the glycol reboiler and igniting. Most of the glycol equipment required replacement. PSV's within the glycol unit's skid were piped locally and resulted in difficulty extinguishing the fire. The cause of the parting of the tubing from the fitting was concluded to be vibration caused by the glycol pump.

In the other incident, the investigation revealed that a 1-inch stainless steel supply tubing to a gas scrubber parted from a swagelock nut and feral. The resultant gas escape was ignited by an unknown ignition source but self-extinguished. Although the exact cause of the separation of the tubing is not known, gas metering pressure charts indicate a period, near the time of the incident, of over-pressure from an unexplained source that is concluded to be a possible cause of the separation. Furthermore, since the skirting of the helideck was damaged during the previous hurricane season, it was concluded that weather-related incidents could have either damaged or at least weakened the tubing at the point of separation.

Considering the conclusions from both investigations, MMS makes the following recommendations:

- Safety policy and procedures regarding tubing sizing, configuration, operational stability, maintenance, and inspections should be reviewed for adequacy.
- All such reviews should take into consideration the possibility that facilities with known damages resulting from the recent 2005 hurricanes could have also incurred nominal, undetected damages that to date have worsened and may currently represent a potential safety hazard.

All of the MMS investigation reports on these incidents are available for viewing at the following MMS website: <http://www.gomr.mms.gov/homepg/offshore/safety/safety.html>