

SAFETY ALERT

E&P (Onland)

No. 14/12

Title: *Fire in Electrostatic Emulsion Treater*

Location: *On land Central Tank Farm*

Activity Type
(Result/outcome): *Major Fire*

What Happened?

A major fire incident took place in the Electrostatic Emulsion Treater (EET) Unit at a Central Tank Farm (CTF). The fire with sound of explosion was observed at EET. Firefighting system available at the installation was put in to operation. Fire tenders from other nearby agencies / companies were mobilized for firefighting and the fire was extinguished.

What Caused It?

The pilot burners which were continuously burning might have gone off unnoticed whereas due to malfunctioning of control system, the fuel gas was continuous to main burners. Gas might have accumulated in the fire box and formed dense gas clouding which exploded when ignited possibly due to hot soot deposition inside the chimney or during making an effort to reignite the pilot burner.

Upon explosion, entire burner lines were parted from the heater unit and gasket packing of the fire tube connecting joint to the heater damaged resulting in crude oil leakage through it. Water cut monitor fitted to the heater vessel was also got damaged and disconnected resulting in crude oil leakages that provided fuel for fire for about 2 ½ hours.

Corrective Actions:

1. Detailed inspection & maintenance schedule with timeline should be developed for all the critical equipment in line with OEM recommendation. These are to be followed by all concerned diligently.
2. Online gas detectors to be installed in the heater area to monitor LEL levels and provide signals in the control room and local audio visual alarms.
3. Work Permit System should be followed diligently. Work Permit should be issued to the supervisor who has to supervise the job after assessing his competency.
4. Job Safety Analysis meeting among inter-departmental personnel is required to evolve job specific plan.
5. Site specific SOPs should be developed and displayed in local language near the equipment.
6. Only properly trained persons to be deployed for operation & maintenance of safety critical equipment.
7. Log book should be maintained for all safety critical equipment to assess the health of equipment.