



# SAFETY ALERT

## Worker Burned by Propane fire

<b>Safety Alert:</b> #21 - 2010	<b>Release Date:</b> June 29, 2010
<b>Incident Type:</b> Faulty Equipment	<b>Country of Origin:</b> Western Canada

### Description of Incident:

- A propane truck arrived at camp to refill the propane tanks that were mounted on the ends of two trailers, one being a spare sleeper and the other a recreation trailer, both were separate from the camp complex. The propane tanks that were mounted on the trailers were positioned facing each other.
- The worker filled the tanks on the spare sleeper trailer without incident but the worker noticed an odd smell, moments after starting to fill the recreation trailer.
- He saw sparks coming from his steel braided hose, which was hooked to propane tank on the recreation trailer and laid across the skid on the sleeper trailer. There was then an immediate fire and the Driver received minor burns to his face. The driver then ran and shut off the propane flow at the truck, got into the cab, and backed the truck away from the fire. The camp crew and water hauler extinguished fire.

### What Caused it:

Examination of the scene revealed that two situations contributed to this incident.

1. Improper and unsafe installation of three electrical wires on an air conditioner mounted on the recreation trailer.
  - These wires ran from the control panel to the compressor through an opening in the housing at the bottom of the air conditioner. The wires were pulled tight, so that they rubbed against the edge of the opening. With the vibration of the air conditioner, over time the plastic insulation on the wires wore through, allowing energy to flow to the steel frame of the trailer, energizing the trailer unit.
2. Lack of grounding of the recreation trailer.
  - The recreation trailer was set down on planks preventing grounding and was not grounded back to the generator building. When the worker connected his steel braided hose to the propane tank on the recreation trailer it laid over the skid of the spare sleeper, a connection was now made that allowed the electrical energy to flow from the recreation trailer, through the propane hose and to the spare sleeper.
  - Electrical arcing started where the propane hose met the skid, this started to melt the rubber inside the propane hose. The integrity of the hose was lost and propane was released. With the hose still sparking it ignited the propane causing the fire.

### Recommendations:

- Ensure that when rigging up buildings, that they are properly grounded either through the electrical cable, or with a ground rod with sufficient depth to achieve proper ground.
- Ensure equipment is bonded together when transferring hydrocarbons

### Contact:

For more information of event, please contact [safety@enform.ca](mailto:safety@enform.ca)

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