

Incident Summary #II-1659120-2024 (#43277) (FINAL)

SUPPORTING INFORMATION	Incident Date	October 30, 2023	
	Location	Langford	
	Regulated industry sector	Gas - Natural gas system	
	Impact	Qty injuries	0
		Injury description	N/A
		Injury rating	None
	Damage	Damage description	Copper gas line melted creating an uncontrolled release of gas and minor burning of control wiring conductor.
		Damage rating	Minor
Incident rating	Minor		
Incident overview	An energized conductor contacted the gas line on a direct vent fireplace resulting in a perforation of the copper line. This resulted in the release and ignition of the fuel which was quickly extinguished by the service technician.		
INVESTIGATION CONCLUSIONS	Site, system and components	<p>A direct vent fireplace was installed in a row housing development. On a call for heat, the pilot is ignited, proven and main burner established.</p> <p>All control wiring is factory installed and equipped with a three prong plug to connect to the house wiring.</p>	
	Failure scenario(s)	<p>During the fireplace service, the technician bumped the factory 120V line voltage wiring contacting the gas line resulting in an arc. This arc perforated the gas line resulting in a release of gas and ignition.</p> <p>Further investigation revealed a damaged factory crimp/joint in the wiring with the un-insulated conductor exposed.</p>	
	Facts and evidence	<ul style="list-style-type: none"> Image below shows damaged wiring. The gas line was cut and capped to make safe and was not available for review. 	
	Causes and contributing factors	An open conductor due to a manufacturing defect or possible field damage allowed the energized wire to contact the copper gas line creating an arc, a hole, and igniting the escaping gas.	



Image – Damaged conductors below fireplace.