

## Incident Summary Reference for II-757706-2018 (9168)

SUPPORTING INFORMATION	Incident Date	October 14 2018	
	Location	Hope B.C.	
	Regulated industry sector	Electrical –Low Voltage electrical system (30V to 750V)	
	Impact	Qty injuries	None
		Injury description	N/A
		Injury rating	None
	Damage	Damage description	There was minor damage to the ESSO sign There was fire damage on the inside of the letter "O" within the sign channel (neon tube inside the channel) There was some minor damage(charring) to the canopy behind the letter "O"
		Damage rating	Minor
	Incident rating	Minor	
	Incident overview	This was a minor fire in the Electric Neon ESSO Sign on the canopy of an ESSO Service Station	
INVESTIGATION CONCLUSIONS	Site, system and components	The Neon Signs was fed with a 14 gauge 2 conductor non-metallic sheathed cable on a 15 amp breaker. The neon sign was built with each letter as a separate sign The letter had a plywood back with sheet metal sides and a plastic front There was a neon tube run in the sign supported on the plywood back. There were 3 Neon ESSO Signs on the canopy Each Neon ESSO Sign had its own High Voltage Neon Power Supply and Each letter of the ESSO sign had its own neon tube and high voltage connection The power supply for the neon sign increases the 120 volts up to as high as 15,000 volts The high voltage arcs through the gas within the glass tube of the sign which produces the bright light of the sign	
	Failure scenario(s)	<p>Before the fire it is thought that a large vehicle had stuck the canopy. The striking of the canopy caused the glass tube with the high voltage neon wiring light connection to break, allowing the high voltage connection to touch the plywood backing of the sign.</p> <p>Over time with the high voltage neon sign wiring in contact with the plywood backing, and with the signs being turned on and off, this would cause a slow burn of the plywood.</p> <p>On the night of October 14 2018 there was a fire at the letter "O" of one of the 3 signs.</p>	
	Facts and evidence	<p>Facts and Evidence are based on the following</p> <p>Observations made at the site -Charring of the plywood backing</p> <p>Statements from the Hope Fire Department -They observed the damage to the canopy near the sign</p>	

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	Statements from Dickson Signs -The operation and the wiring connection used on these signs and the damage to the canopy
Causes and contributing factors	It is possible that this fire was caused by the high voltage wiring coming in contact with the plywood backing of the sign from previous damage to the canopy.

Photo of the ESSO Sign and the missing "O"



A Photo provided by to Hope Fire Department taken the night of the fire



A photo of the letter "O" after the fire

