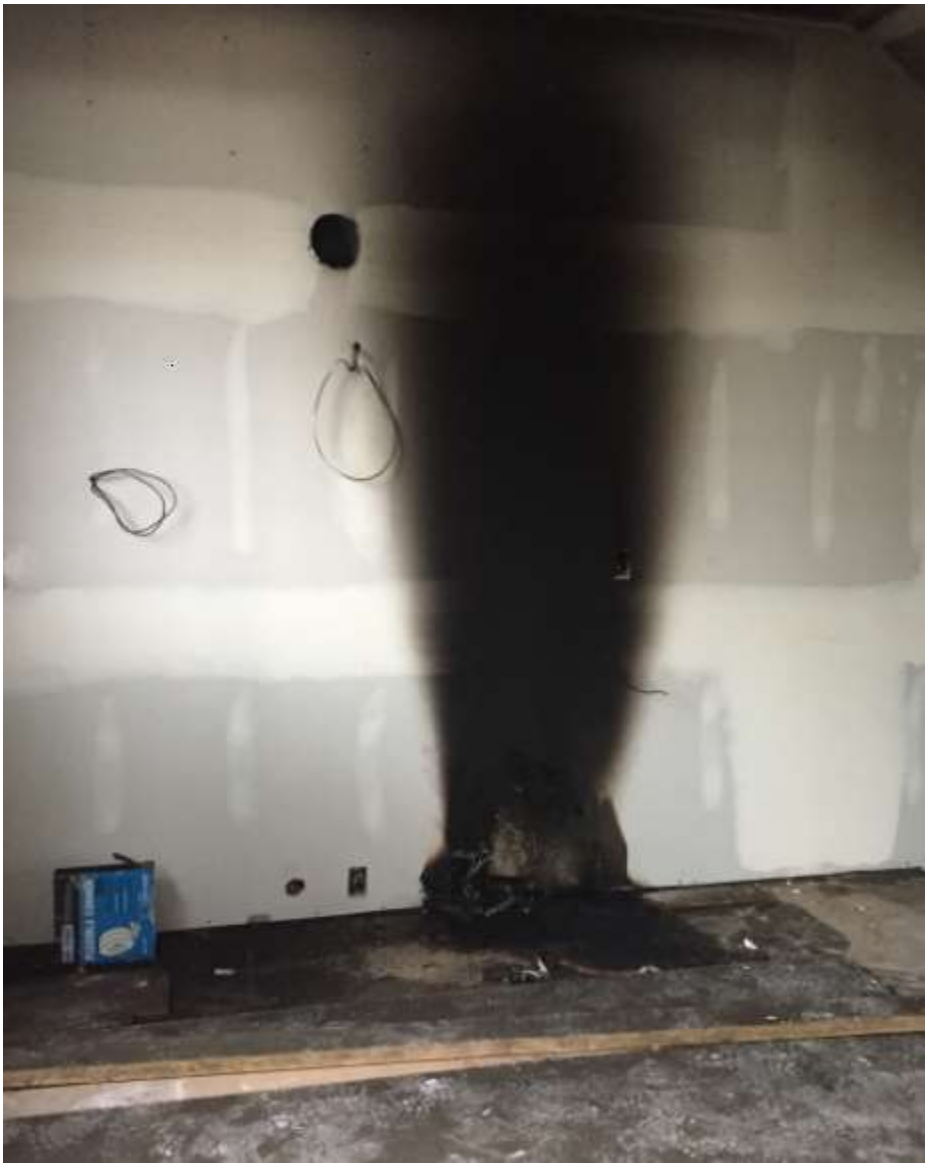
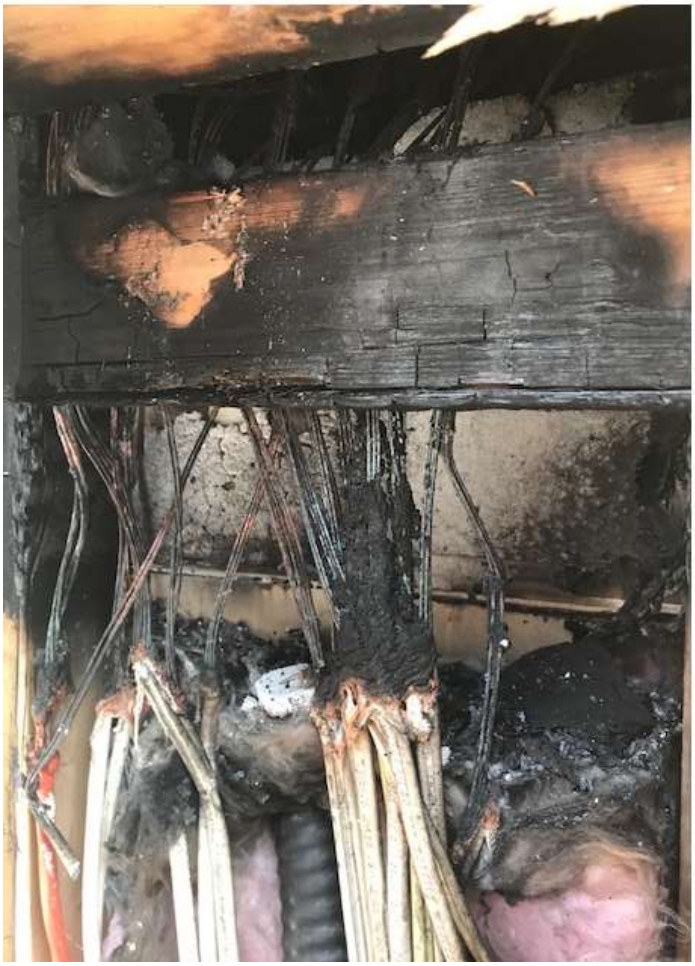
Incident Summary (II-651246-2018) (Final)

SUPPORTING INFORMATION	Incident Date		*February 12, 2018*
	Location		*Gibsons, Sunshine Coast*
	Regulated industry sector		*Electrical – Low Voltage Electrical System (30V – 750V)*
	Impact	Injury – Qty injuries	*None*
		Injury – Injury description	*None*
		Injury – Injury rating	*None*
		Damage – Damage description	*The main floor of a single family dwelling suffered fire & smoke damage in the kitchen as well as the interior wall cavity directly above the panel-board in the downstairs exterior wall.*
		Damage – Damage rating	*Moderate*
	Incident rating		*Moderate*
	Incident overview		*The extension cord connected to a temporary construction heater (installed to heat a single family dwelling at drywall stage) caught fire.*
INVESTIGATION CONCLUSIONS	Site, system and components		*A temporary construction heater to heat a single family dwelling at drywall stage should be equipped with a CSA approved cord end and corresponding receptacle. Additionally, the construction heater should be fed with an appropriately sized circuit breaker with rated branch circuit conductors.*
	Failure scenario(s)		*Without the direct supervision of a qualified individual, a temporary construction heater was fed from a lite gauge (under-sized) copper extension cord which was hardwired into a range outlet. The branch circuit feeding the range outlet was fed with a 2 pole 40 amp circuit breaker with aluminium branch circuit conductors. The construction heater was rated for a 2 pole 30 amp circuit breaker. The extension cord was not rated for this type of installation.*
	Facts and evidence		*Interview with General Contractor:* - *The general contractor described that the junctions were made to the electrical system at the range outlet which connected the temporary construction heater with an extension cord.* - *The general contractor stated that an unqualified individual connected the regulated to the electrical system without supervision.* - *The general contractor stated the cord and heater had deteriorated over time from use.*
	Causes and contributing factors		*It is likely the junction made between copper and aluminium by an unqualified and uncertified individual created enough heat to spark the fire to track back onto the extension cord and then to the dwelling.*

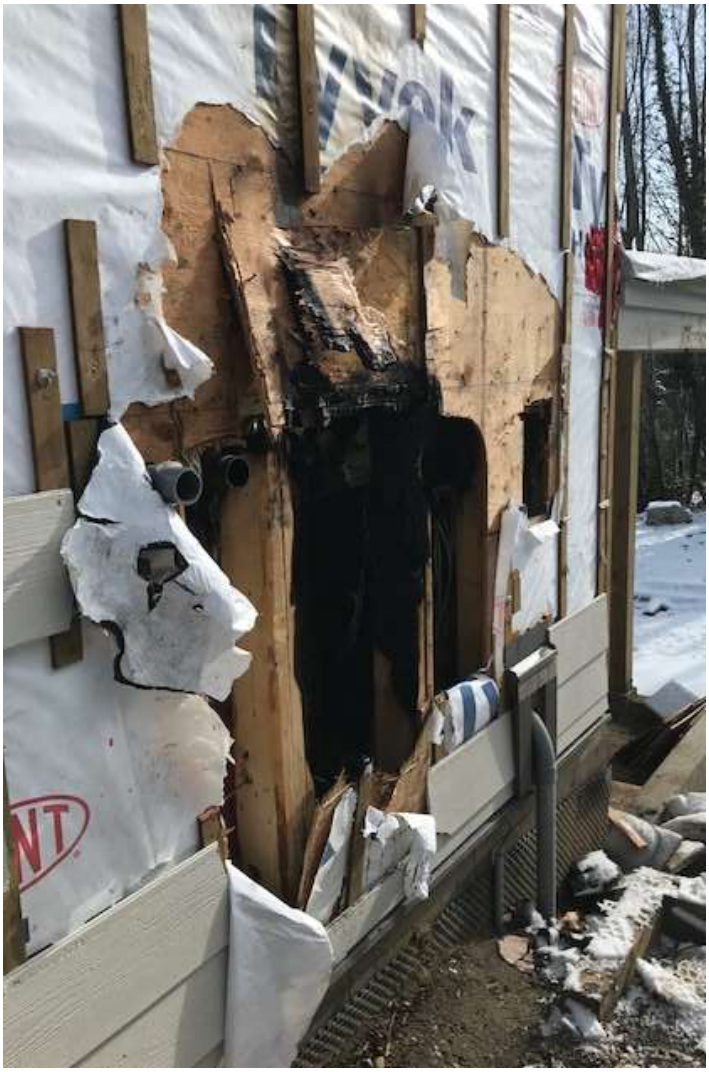
Photos or diagrams (if necessary)



Location of junction at range box a lite *gauge* (*under-sized*) *copper extension cord*



Resulting fire damage



Resulting fire damage