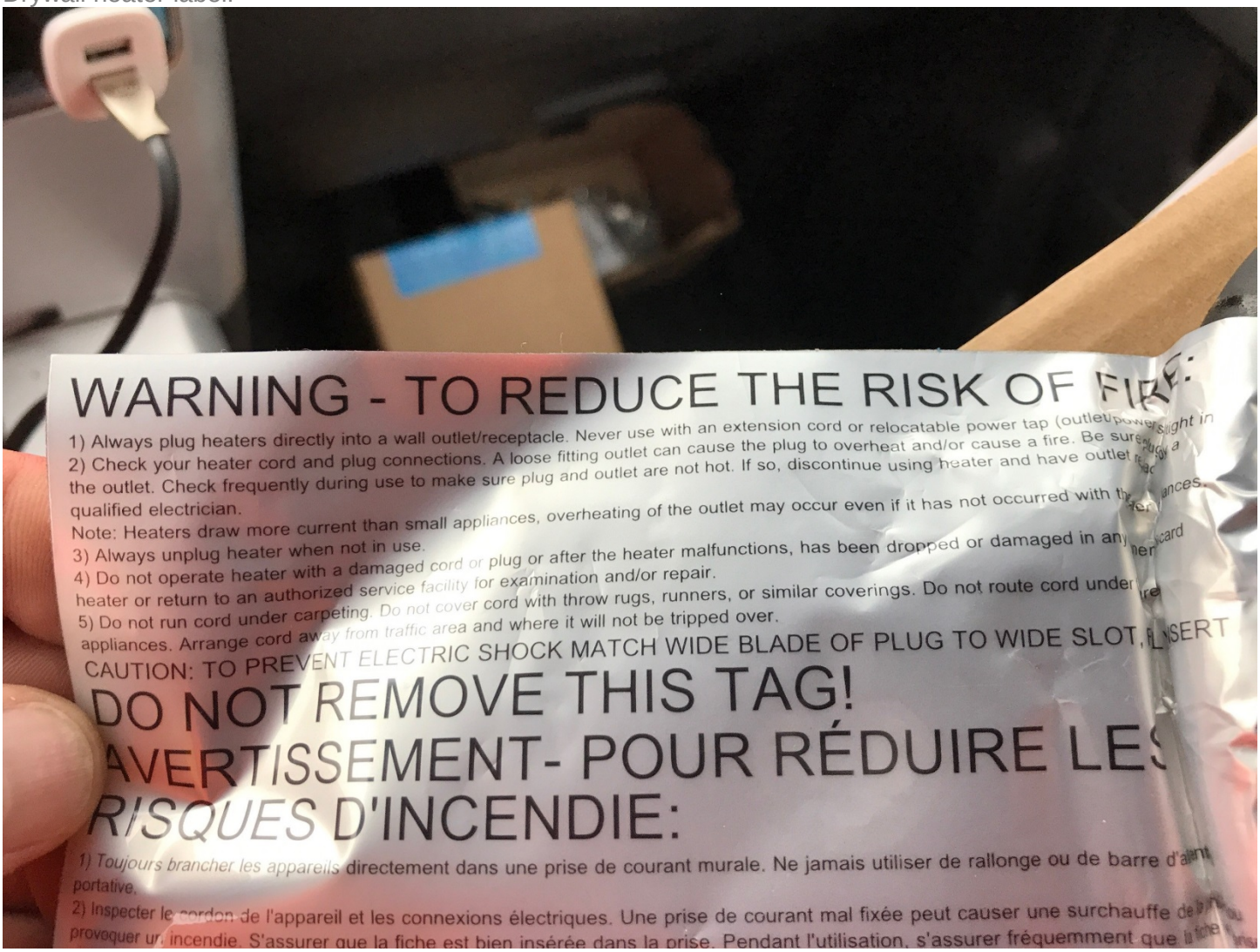
Incident Summary (Reference #II-636571)

SUPPORTING INFORMATION	Incident Date		*January 1, 2018*
	Location		*Campbell River*
	Regulated industry sector		*Low voltage electrical system (30V to 750V)*
	Impact – Injury	Qty injuries	*0*
		Injury description	*N/A*
		Injury rating	*None*
	Impact – Damage	Damage description	*Heater cord end, 30 Amp temporary receptacle in 4-11/16 box, wire in the concealed wall behind 4-11/16 box and insulated wall were damaged by fire.*
		Damage rating	*Minor*
	Incident rating		*Minor*
	Incident overview		*A heater is suspected of causing a fire in the kitchen of a duplex under construction.*
INVESTIGATION CONCLUSIONS	Site, system and components		*The heater utilizes a heating element to create heat which is removed and distributed by a self-contained fan. The built in thermostat will automatically turn heater off when desired temperature set by the thermostat is reached.*
	Failure scenario(s)		A poor connection between the blackened prong heater cord end and a used receptacle caused overheating. The overheating destroyed the cord end, receptacle and the branch circuit.
	Facts and evidence		• A 4.8KW heater was plugged into a 30Amp 240V receptacle on a 40Amp breaker. • First heater 4.8KW used was removed due to inoperability. (see statement) • A heater in the same suite shows signs of damage. (see photo of black and pitted prong) • A new 4.8KW heater was plugged into the same receptacle (see statement) • Warning labels on heater cords state, “Check your heater cord and plug connections. A loose fitting outlet can cause the plug to overheat and or cause a fire.” (see photo of label) • The breaker was in the tripped position.(see statements) • The cord end, receptacle and branch circuit were destroyed. (see photo) <u>Witness Statement</u> • Electrical contractor stated the drywall heater first used stopped working and a second heater was purchased and plugged into the 240V 30Amp receptacle. He also stated the 2 pole 40 Amp breaker for this circuit was in the tripped position after the fire. • The Building Contractor stated that the 2 pole 40 Amp breaker was in the tripped position after the fire. He also stated a heater was plugged into an extension cord that was plugged into the 30 Amp outlet.
	Causes and contributing factors		This fire likely started from a poor connection between the cord end prongs and the receptacle. The poor connection may have been a result of worn equipment, improper maintenance and not following manufacturer’s instructions.

Damaged cord end of heater in the same suite

Drywall heater label.



Heater used at time of fire.

Damage by fire