Incident Summary #II-848335-2019 (#15152) (FINAL) *Revised June 9, 2020.*

Note – This report has been revised. The original version of this report referenced the incorrect incident date.

SUPPORTING INFORMATION	Incident Date		April 6, 2019
	Location		Windermere, BC
	Regulated industry sector		Electrical - Low voltage electrical system (30V to 750V)
	Impact – Injury	Qty injuries	0
		Injury description	None.
		Injury rating	Moderate
	Impact – Damage	Damage description	Electrical unit heater destroyed by fire. Structure and property within damaged by fire.
		Damage rating	Moderate
	Incident rating		Moderate
	Incident overview		A fire began in a detached garage in Windermere, BC. An electrical unit heater was found at the center of the fire damage.
INVESTIGATION CONCLUSIONS	Site, system and components		The unit heater was installed in the detached garage as the sole source of heat in the space. The purpose of the heater was to prevent fluids stored in the garage from freezing.
	Failure scenario(s)		The electric heater involved in the fire was determined to have been connected to a power supply at the time of the fire event. It was suspected that the heater may have malfunctioned.
	Facts and evidence		The heater was installed by an electrical contractor in 2014. Visual inspection of the site yielded the following findings: The heater was located near the center of the fire damaged area in the garage. (see Figure 1). The most heavily fire damaged portion of the garage was the area above and around the unit heater. The thermostat built in to the heater was set to a low setting. The heater was intended to cycle on around five degrees C, and off again around 8 degrees C. There were no other likely sources of ignition found near the fire damaged area. The burnt frame of the unit heater very closely matched a recalled product's listed dimensions. (see figures 2-4, and attached product recall sheet). Upon further research into the heater, it was discovered that the recalled unit heater is known to have been involved in multiple structure fires across the country. The heating elements in the OCH-4800 unit heaters manufactured prior to 2016 were

		known to be defective, and as such, have been subject a product recall by the manufacturer.
	Causes and contributing factors	Given the degree of damage to the unit heater, location of the heater near the center of the most fire damaged area and the lack of other plausible ignition sources nearby it is likely that the heater was the source of ignition for the fire. The dimensions of the heater closely matched a recalled regulated product known to be associated with increased fire risk, it is possible that the fire was caused by a failure of a faulty heating element within the heater.

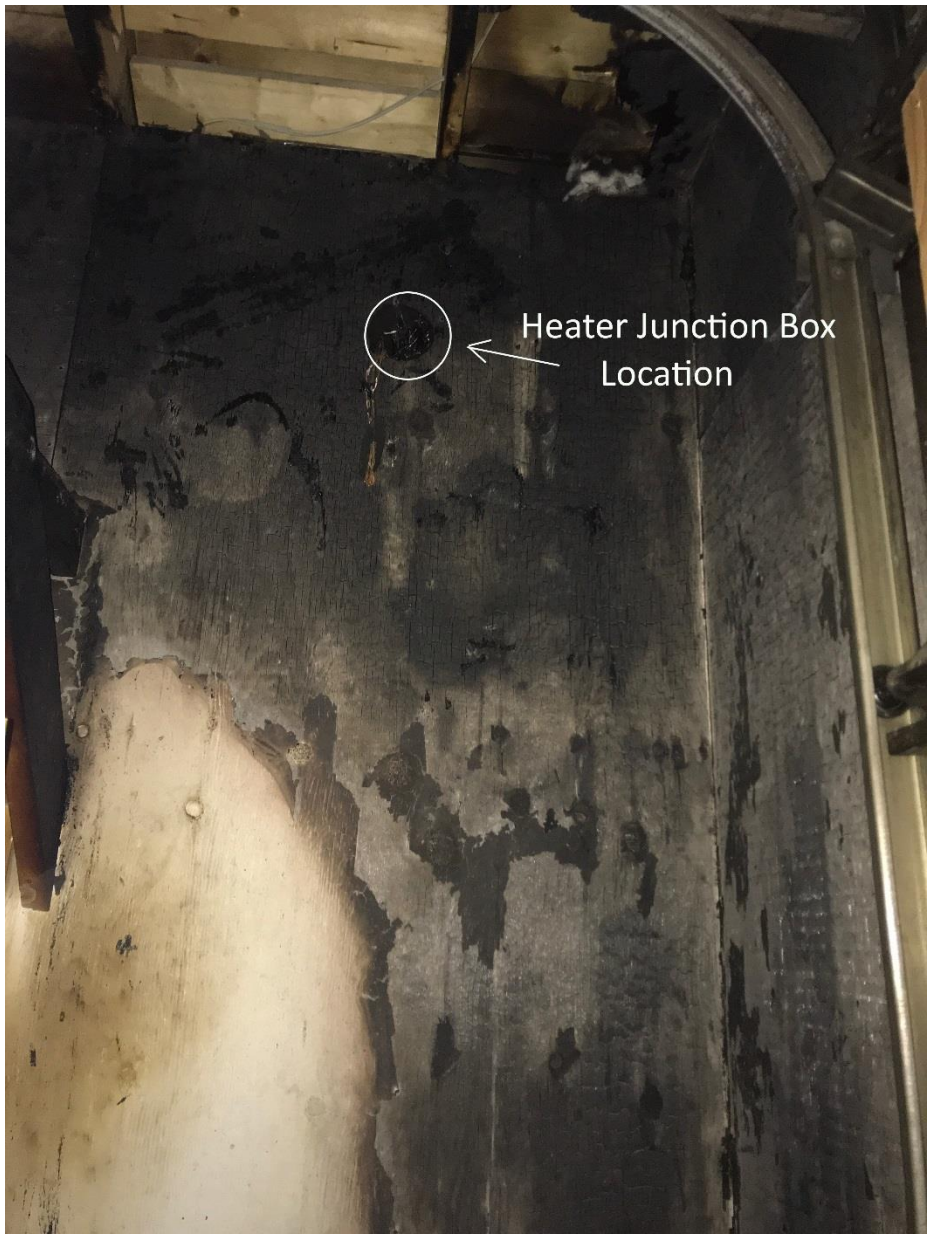
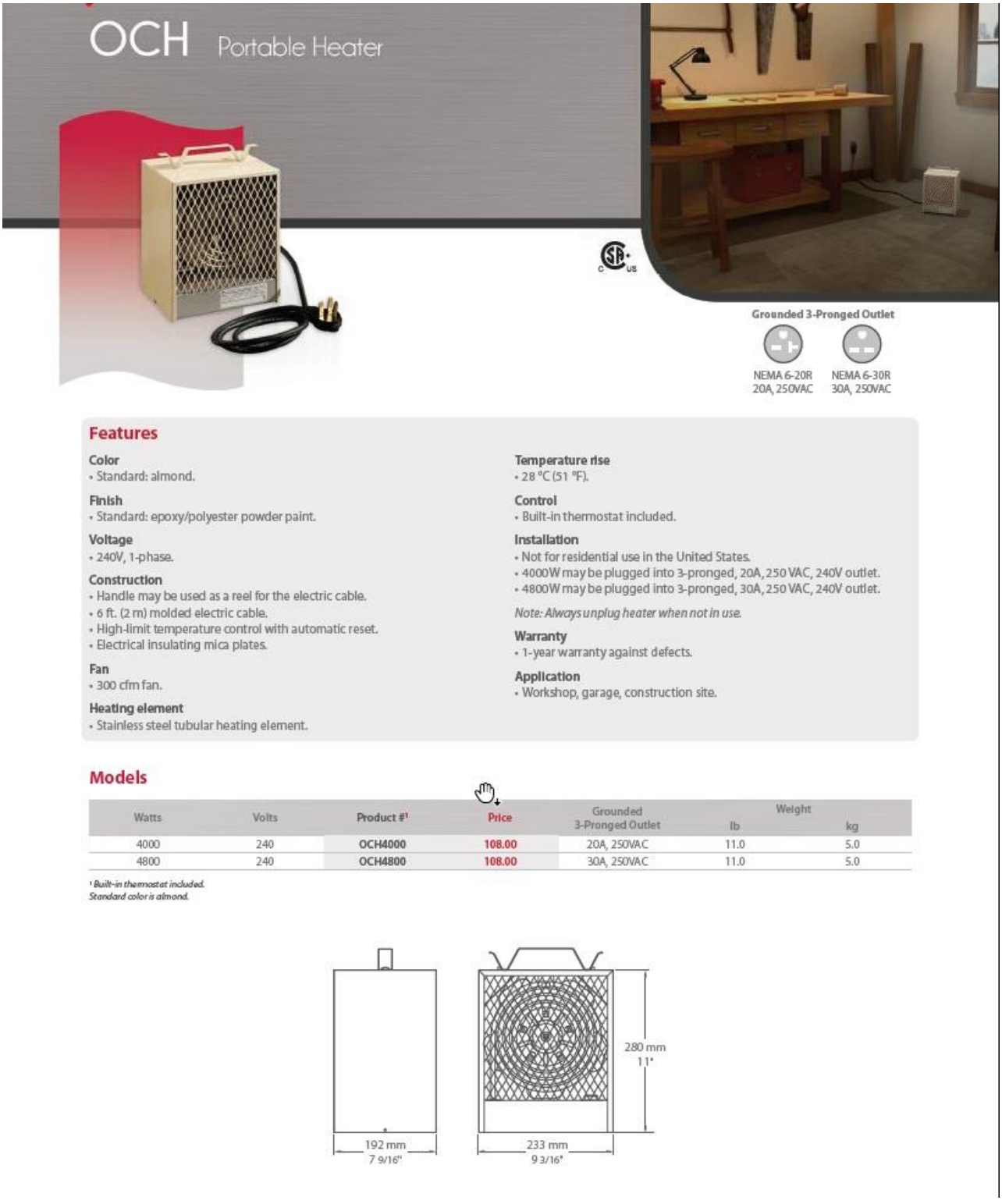


Figure 1: Fire damage localized around heater installation location.

Figure 2: Unit heater depth

Figure 4: Unit Heater width

Figure 3: Unit heater height



OCH Portable Heater

Grounded 3-Pronged Outlet

NEMA 6-20R
20A, 250VAC

NEMA 6-30R
30A, 250VAC

Features

Color
- Standard: almond.

Finish
- Standard: epoxy/polyester powder paint.

Voltage
- 240V, 1-phase.

Construction
- Handle may be used as a reel for the electric cable.
- 6 ft. (2 m) molded electric cable.
- High-limit temperature control with automatic reset.
- Electrical insulating mica plates.

Fan
- 300 cfm fan.

Heating element
- Stainless steel tubular heating element.

Temperature rise
- 28 °C (51 °F).

Control
- Built-in thermostat included.

Installation
- Not for residential use in the United States.
- 4000W may be plugged into 3-pronged, 20A, 250 VAC, 240V outlet.
- 4800W may be plugged into 3-pronged, 30A, 250 VAC, 240V outlet.

Note: Always unplug heater when not in use.

Warranty
- 1-year warranty against defects.

Application
- Workshop, garage, construction site.

Models

Watts	Volts	Product #[1]	Price	Grounded 3-Pronged Outlet	Weight lb	Weight kg
4000	240	OCH4000	108.00	20A, 250VAC	11.0	5.0
4800	240	OCH4800	108.00	30A, 250VAC	11.0	5.0

[1] *Built-in thermostat included.*
Standard color is almond.

Figure 5: Product catalog listing for recalled unit heater.