

## Incident Summary #II-1648621-2023 (#42362) (FINAL)

SUPPORTING INFORMATION	Incident Date	December 8, 2023	
	Location	Ladysmith	
	Regulated industry sector	Electrical - Low voltage electrical system (30V to 750V)	
	Impact	Qty injuries	0
		Injury description	Canine – deceased.
		Injury rating	None
	Damage	Damage description	Melted heater, fire damage to walls and floor in room of origin. Fire spread to walls and basement damaging structural components.
		Damage rating	Moderate
	Incident rating	Moderate	
Incident overview	A fire started in the vicinity of a baseboard heater. The fire damaged the floor and walls in the room of origin and spread through a vent in the floor to the basement. A 10-month-old Canine in the room perished.		
INVESTIGATION CONCLUSIONS	Site, system and components	<p>A baseboard heater (BB heater) is an electric heater that uses a resistor/element and convection to heat a room.</p> <p>The heaters are usually mounted under windows as this aids in the natural convection process.</p> <p>Manufacturer’s instructions specifically state that users are to keep flammable materials away from the heaters and have specific clearances that are to be maintained for items like drapes or furniture. Manufacturer’s instructions will also have restrictions on the type of material that the heaters can be mounted to. This brand of heater was restricted from being mounted to Low Density Fiberboard (LDF).</p> <p>The bedroom where the fire started had a 1000-watt BB heater mounted to a fir baseboard. Positioned directly in front of the heater was a floor vent that opened directly to the basement. Underneath the vent in the basement were shelves full of empty plastic bottles. The floor vent was not connected to furnace ducting.</p>	
	Failure scenario(s)	<p>The room where the fire started was being used to house a 10 month of canine. The canine succumbed to smoke inhalation. There were several dog toys in the vicinity of the heater, one was half burnt on the floor and several that were positioned on the windowsill above the heater were melted.</p> <p>It is thought by investigators, that flammable material contacted the heater which ignited and was able to spread to the plastic bottles stored on the shelves underneath the heater through the floor vent, as the furnace duct was disconnected from the vent.</p> <p>No other electrical sources were found in the vicinity of the fire origin, in the bedroom nor in the basement under the bedroom.</p>	

## Incident Summary #II-1648621-2023 (#42362) (FINAL)

Facts and evidence	<p>Independent fire investigators examined the scene and noted that based on the smoke pattern on the wall, that the curtains were open when the fire started. The heater was mounted directly to a fir baseboard which complied with the manufacturer's instructions.</p> <p>Investigators stated that the fire originated at the heater and likely had flammable material up against it.</p>
Causes and contributing factors	<p>It is plausible that flammable material contacted the heater, which ignited and spread to the basement through the vent in the floor.</p>



Image 1 - Front of house, fire started in the bedroom to the left of the main entrance.



Image 2 - Origin of the fire.





Image 3 - Shelving in the basement under the bedroom, the shelving contained plastic bottles.





Image 4 - Looking from bedroom through hole in floor to the basement.