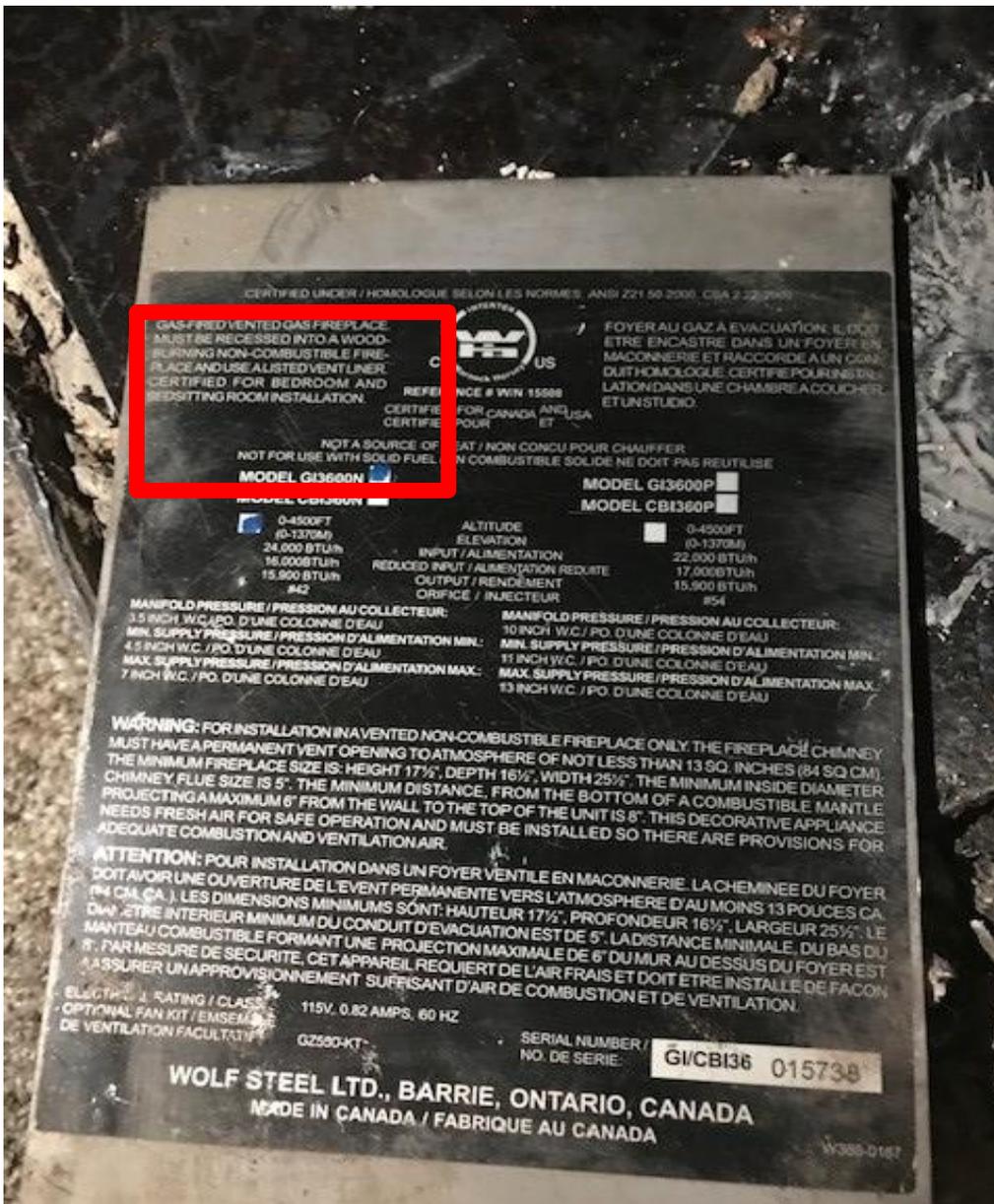


Incident Summary #II-950213-2019 (#16064) (FINAL)

SUPPORTING INFORMATION	Incident Date	December 4, 2019	
	Location	Aldergrove	
	Regulated industry sector	Gas - Natural gas system	
	Impact	Qty injuries	0
		Injury description	none
		Injury rating	None
	Damage	Damage description	Minor charring of wood framing surrounding firebox of the insert gas fireplace.
		Damage rating	Minor
	Incident rating	Minor	
Incident overview	Over a period of approximately 10 years the operation of this gas fireplace in a residential home overheated the surrounding wood framing causing the wood to start smoking (burning) causing smoke to enter the occupied space.		
INVESTIGATION CONCLUSIONS	Site, system and components	The gas fireplace in question was an insert gas fireplace that was certified to be installed in non-combustible surround or inserted into a wood burning fireplace opening. An insert fireplace cannot be installed into a combustible enclosure because of the radiant heat from the firebox is too hot and will cause the wood framing to catch on fire	
	Failure scenario(s)	<p>This gas fireplace was incorrectly installed in a wood framed cavity and over the 10 years of operation the heat from the fireplace overheated the wood framing above the fireplace (pyrolysis) causing the wood to start burn.</p> <ul style="list-style-type: none"> - The homeowner purchased the gas fireplace approximately 10 years ago and with the help from a neighbour she had the fireplace installed. - On December 4 2019 the owner smelled smoke on the main floor and she phoned the fire department. - The fire department responded and determined that the wood framing surrounding the fireplace was charred and had started to burn causing the smoke to enter the residence. - The fire department pulled the fireplace out into the living space to confirm that the fire was out and with the assistance from the gas utility disconnected the gas piping from the fireplace and also disconnected the gas supply at the gas meter and capped the gas meter. 	
	Facts and evidence	<ul style="list-style-type: none"> - The attached rating plate determined that the gas fireplace was installed incorrectly into a wood framed surround, the installation manual confirmed that this fireplace is only approved for installation into a non-combustible wood burning fireplace. (see photo # 1) - The photos that I've attached show the scorching on the wood framing caused by the heat that radiated from the gas fireplace. (see photo # 4) 	

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	<ul style="list-style-type: none">- The homeowner stated that the gas fireplace was replaced at least 10 years ago with the help from a neighbour. I was not able to interview the neighbour and the owner has no contact information.- A search of the Technical Safety BC records indicated neither the homeowner or the neighbor who assisted with the installation were qualified gas fitters.
Causes and contributing factors	<p>The cause of this incident was very likely that the gas fireplace was not installed according to the manufacturer's installation instructions which clearly indicated that the fireplace had to be installed in a non-combustible fireplace cavity.</p> <p>It's very likely that the individual/s that installed the fireplace were not qualified and did not read or understand the manufacturer's installation instructions.</p>



1. Rating plate – top left indicates fireplace approved as a wood burning insert only



2. Front view of fireplace



3. Side view of fireplace



4. Picture shows the scorched wood above the fireplace – right side