

Incident Summary (# 5612651)

SUPPORTING INFORMATION	Incident Date		February 8, 2017	
	Location		Sparwood	
	Regulated industry sector		Gas	
	Impact	Injury	Qty injuries	1
			Injury description	One person sent to Hospital for carbon monoxide exposure
			Injury rating	Moderate
	Damage		Damage description	None
			Damage rating	None
	Incident rating		Moderate	
Incident overview		A cracked heat exchanger on a residential furnace resulted in levels of Carbon Monoxide inside of home.		
INVESTIGATION CONCLUSIONS	Site, system and components		A gas fired furnace located in the basement providing heat for a two storey residential home. Gas burners operate under a heat exchanger, the products of combustion pass through the heat exchanger and up the venting system to exit to the outdoors.	
	Failure scenario(s)		The furnace heat exchanger was found to have a hole in it, also it was found that the vent piping was no longer glued securely to the concentric vent kit before exiting out the side wall.	
	Facts and evidence		Fortis gas technician attended the site on February 8, 2017 and was getting readings of 500 PPM CO at the front door. Home was aired out until 0 PPM, technician entered home to the furnace location and cycled the furnace on where he immediately got readings of 500 PPM CO by the concentric vent kit exiting the side wall. The furnace was red tagged and taken out of service. A registered gas contractor from Fernie was hired to look at furnace and was found that the heat exchanger had a hole in it and that the vent piping was no longer glued securely to the concentric vent kit.	
	Causes and contributing factors		The contributing factors to Carbon Monoxide exposure in the home was due to a failed furnace heat exchanger and the vent piping no longer glued securely to the concentric vent kit causing high levels of carbon monoxide.	

The two pictures show the vent piping going into the concentric vent kit before exiting the side wall. The piping was no longer glued securely to the concentric vent kit and was leaking into the basement of the home.

