

## Incident Summary #II-1031540-2020 (#18557) (FINAL)

SUPPORTING INFORMATION	Incident Date		June 24, 2020	
	Location		Summerland	
	Regulated industry sector		Gas - Natural gas system	
	Impact	Injury	Qty injuries	0
			Injury description	N/A
			Injury rating	None
		Damage	Damage description	Corrugated Stainless Steel Tubing (CSST) became perforated because of a lightning strike and the escaping natural gas ignited causing a small fire on the side of the house. The fire was approx. three feet by three feet and burnt a hole through the siding on the house and into the wall cavity.
			Damage rating	Moderate
Incident rating		Moderate		
Incident overview		A lightning strike to a house caused a gas leak which ignited causing a small fire that burnt a hole into the wall cavity of the house.		
INVESTIGATION CONCLUSIONS	Site, system and components		<p>Corrugated stainless steel tubing (CSST) is flexible metallic gas tubing that conveys natural gas or propane to gas appliances.</p> <p>A correctly bonded metallic piping system will be less susceptible to an electric fault or stray electrical current. Metallic piping systems can create fire and shock hazards throughout the building if they are not electrically bonded to ground.</p>	
	Failure scenario(s)		When the home was struck by lightning, an electrical path to ground arced between a metallic support clamp on the CSST and the wire mesh inside the stucco siding. This created a hole in the CSST and simultaneously ignited the escaping gas causing a small fire. The CSST was not bonded to ground.	
	Facts and evidence		<p>Statement from Power Line technician who came out to restore the power and discovered that the house was on fire. The gas line was in flames and had ignited the side of the home. The Power Line technician then extinguished the flames, turned off the gas and called the fire department.</p> <p>In an interview with the Fire department who attended site they stated that they found a hole in the CSST, and possible beading on stucco wire mesh.</p>	
	Causes and contributing factors		It is possible that the CSST that was supported to the stucco with metal support clamps allowed the lightning to arc creating the hole which allowed the gas to escape and be ignited, causing the fire. The CSST was not bonded to ground.	

Area where the fire started. The yellow CSST that was not bonded when the lightning strike created a hole in the CSST.







*Lightning path that was  
observed on the tree*