

Incident Summary #II-1002951-2020 (#16990) (FINAL)

SUPPORTING INFORMATION	Incident Date	April 10, 2020	
	Location	Langford	
	Regulated industry sector	Gas - Natural gas system	
	Impact	Qty injuries	1
		Injury description	One person sustained a laceration to middle finger on left hand requiring 7 stitches.
		Injury rating	Minor
	Damage	Damage description	Burst filler hose
		Damage rating	Severe
Incident rating	Severe		
Incident overview	User was in the process of fueling his vehicle with compressed natural gas (CNG) when upon removing the nozzle from the holder on the dispenser, the filler hose burst, causing the nozzle and hose assembly to whip out of the users hand. The nozzle had not yet been connected to the vehicle filler or the fueling sequence initiated when the hose burst causing an Injury to middle finger on left hand that re required stitches.		
INVESTIGATION CONCLUSIONS	Site, system and components	<p>Natural gas vehicle fueling station comprising of compressor and accumulator tanks with a refueling station containing a nozzle and hose assembly.</p> <ul style="list-style-type: none"> - The user enters company information into key pad((card lock) and connects fuel nozzle to vehicle fuel port. The nozzle is connected to the dispenser with two high pressure hoses. - The manual nozzle valve is opened and the filling sequence started. The filling sequence is automatic based on tank pressure and temperature. Fuel transfer will not start unless connected to vehicle filler port. - At the completion of the fueling cycle, the manual valve is closed and the nozzle is remove from vehicle filler port and placed back into the holder. <p>Residual pressure is retained in hose following fueling of approximately 3600 PSI.</p>	
	Failure scenario(s)	Damage from mechanical contact on outer jacket and reinforcing fibers in the filling hose may have caused a weak spot that was unable to contain the residual pressure in the hose .	
	Facts and evidence	Filler hose shows extensive abrasion damage to outer jacket and braided fibre reinforcement mesh (Mechanical damage).	
	Causes and contributing factors	It's Possible that interaction between hose and vehicle (pinch point) that could have trapped the filler hose against the sharp edge of baseplate on protection post.	

Damaged Filler hose



Sharp edge on protection post baseplate.



Dispenser showing hose orientation.

