

Incident Summary (#5612964)

SUPPORTING INFORMATION	Incident Date		March 9, 2017	
	Location		Abbotsford	
	Regulated industry sector		Electrical – Low Voltage Electrical System (30-750V)	
	Impact	Injury	Qty injuries	0
			Injury description	N/A
			Injury rating	None
	Damage	Damage description	Revenue meter in the electrical room of an industrial building failed causing a fire. The meter was heavily damaged, the meter base and the fused switch protecting it were damaged. Damage to a small section of conductors for the tenant space.	
			Damage rating	Minor
	Incident rating		Minor	
Incident overview		Tenants noticed lights flickering and when one of the tenants opened the electrical room door on the exterior of the building they noticed smoke and flame. A tenant extinguished the fire and the fire department was notified. The fire was contained within the electrical room.		
INVESTIGATION CONCLUSIONS	Site, system and components		The local power utility company meter, installed in a meter base. It was used for revenue metering.	
	Failure scenario(s)		The revenue meter should have failed safe inside the metal meter base. However, the original electrical installer for the service and metering equipment failed to isolate the neutral conductor inside the meter bases. Therefore, when the fault occurred the overcurrent devices could not function and a fire resulted.	
	Facts and evidence		A tenant noticed flickering lights and upon investigating its cause found smoke and flames in the electrical room. The revenue meter was badly damaged and there was smoke and heat damage to the meter base, the fused switch, and cable damage for one tenant space. The majority of damage was in the meter base which was located above the fused switch. Fire burned up to damage a small section of the cable and down into the fused switch. The meter was damaged where it connects to the meter base. All components in the meter base were showing damage and the majority of it was in the centre of the meter base.	
	Causes and contributing factors		The revenue meter had the most severe damage inside the meter base in the centre of the meter. Heat and fire radiated out from there. A failure in the meter base is the probable cause.	



Rear of revenue meter showing damage radiating out from centre.



Inside of meter base. Showing damage radiating out from centre.