

From: Merriweather, Norman -R2
To: Suggs, LaDonna
Subject: RE: Fault Pressure Realy Question
Date: Friday, September 09, 2011 11:09:55 AM

LaDonna,

Based on the description of how this relay operates, I would surmise that when the transformers were hopping around during the seismic event, the oil in the transformer sloshed around up and down putting and upward force on the bellows shown as item 13, compressing the bellows and therefore forcing the silicone oil into the other bellows. The bellows without the orifice moved upward to actuate the switch. This is one plausible reason for actuating the relay. The other reason may be that the relay spuriously actuated from the jumping around of the transformer, because it was not seismically qualified. The gas analysis would support the fact that a fault did not occur inside the transformers.

From: Suggs, LaDonna
Sent: Friday, September 09, 2011 10:22 AM
To: Merriweather, Norman
Subject: Fault Pressure Realy Question

Norm –

I was reviewing the vendor info on the fault pressure relays and there's a statement in the introduction that says The relay will not be operated by vibration, mechanical shock, or pump surges. Based on the way I'm understanding the device to work it seems that in order for the relays to actuate there would have to be an increase in the flow of oil into the device's 2 sensing bellows at different rates...do you think it's plausible that the shaking from the seismic event could have created this type of scenario? (I've attached the 3pgs from the manual that discusses the fault-pressure relay and the suggested circuitry alignment).

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