

## **OIL SAMPLING COLLECTION PROCEDURE WITH THE MAIN TRANSFORMER TURNED ON**

### **1- CONSIDERING THE ENERGIZED TRANSFORMER**

- It is not necessary to turn off the gas relay circuits, thermometer, gauge or even temperature relay circuits; in cases where the internal pressure of the transformer is positive.  
Therefore, the oil sampling collection through the lower faucet is made naturally without the need of turning off these equipments
- We need only to turn off the power transformer when the internal pressure of the transformer is negative; due to the fact that it is of flanged sealed type. Thus, when collecting the oil, the air will enter into the main transformer and can cause its burning, due to the dielectric air being much lower if compared to the dielectric “Mineral Oil”.

### **2- CONSIDERING THE TRANSFORMER TURNED OFF**

- In this case, we do not need to worry to turn off the accessories because the equipment is already turned-off
- It is also unnecessary to worry about the air getting into the interior of the main transformer, because when we are talking about the transformer with a silica gel reservoir; its internal pressure is positive and in this case, there is no air getting inside. When we are talking about the sealed and flanged transformer, in this case, it does not have gas relay and there is no reason to turn-off, neither to bleed the gas relay, because it does not exist.

### **3- OIL TREATMENT WITH THE TRANSFORMER TURNED ON**

- In this case, it is necessary to turn off the whole transformer and then, also turned off the accessories: gas relay- thermometer - gauge; this is because if we try to disconnect these accessories with the equipment turned on, we can involuntarily turn off the main transformer.
- After turning off the accessories, the transformer can be turned on to start the oil treatment process
- The sample collection, in this case, is made as if the equipment has positive pressure; thus, it is not necessary to turn off the accessories

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