

		Procedure No: TA 00035
		Authorised by: G Noble
Title: Requirements for photographs when conducting an audit.		
Issue Date: May 2017	Revision Date: NA	Page 1 of 4

1. Purpose

This procedure highlights the need to ensure repeatability of all staff taking photographs during audits with normal and IR digital cameras.

2. Scope

- a. Set photographs digital and IR
- b. Identifying faults and issues with photographs

3. References

- a. FLIR Instruction Manuals
- b. Fuji Instruction Manuals
- c. TA 00001 – Job Safety Analysis

4. Definitions /Abbreviations

JSA – Job Safety Analysis

Oil – Transformer insulating fluid – usually hydrocarbon based

PPE – Personal Protective Equipment

TX – Transformer

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5. Health & Safety

General caution, health, safety and environmental protection.

This procedure does not purport to address all the safety problems associated with its use. It is the responsibility of the user of the standard to use appropriate health and safety practices and determine the applicability of regulatory limitations prior to use.

No work shall be carried out without first conducting an OHS study of the task in hand and the appropriate check sheets (TA 0001) filled out.

Transaudit Quick Check

Personal Protective Equipment (PPE) Required						
						
Gloves	Face Masks	Eye Protection	Welding Mask	Appropriate Footwear	Hearing Protection	Protective Clothing
☐	☐	☒	☐	☒	☐	☒

This quick check does not replace Job Safety Analysis TA 0001

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6. Environmental

Our commitment is to ensure that the environment is not damaged through any action that we may take now or in the future. Transaudit will provide the means to limit environmental damage through engineering, substitution or removal of and items or procedures that have the potential to impact the environment. Disposal of waste material, spent batteries, hazardous goods or items which have become contaminated will be done through the appropriate means or through a registered waste disposal company.

7. Procedure

Standard Digital Photographs

1. Identify the transformer to be photographed by using the Transaudit ID sticker and numbering system in place.
2. Record the transformer details on the sheets provided or in a diary.
3. Start with the set photographs. These are:
 - a. The Transaudit ID sticker
 - b. The transformer rating plate from multiple angles to ensure all details are captured. If this is a repeat visit i.e. the transformer is already in the database, only an image which shows the serial number.
 - c. The temperature gauge(s)
 - d. The silica gel breather / desiccant dryer / pressure gauge
 - e. HV & LV Bushings, cable boxes, glands and earthing
 - f. Oil level indicator(s)
 - g. Transformer from 4+ angles
4. Any issues on the transformer such as:
 - a. Rust
 - b. Oil leaks
 - c. Cracked / chipped bushings
 - d. Cables
 - e. Earthing
 - f. Blackened bolts
 - g. Burned gaskets or paint
 - h. Gaskets bulging
5. At a minimum, there should be at least 8-10 photographs of a transformer not including rating plates, OLTC plates or drive boxes etc.

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Standard Infrared Images

1. Identify the transformer to be IR photographed by using the Transaudit ID sticker and numbering system in place.
2. IR Shots of the following:
 - a. Bushings and/or cables
 - b. Cable boxes
 - c. Radiators from 2 angles
 - d. Pumps / fans
 - e. Main tank
 - f. OLTC from 2 angles
 - g. Conservator
3. At a minimum, there should be at least 6-8 IR photographs of a transformer not including ID image.
4. If there is a suspected hot-spot, multiple angles – as close to 360 degrees as achievable. Ensure the temperature indicated on the screen does not have a “ ~ “ in front of the number i.e. ~65C. If it does, you must wait for the camera to completely calibrate before continuing.

After completing the images, sign off on the information sheet or record in diary that these images have been completed.

Both Normal and IR images, check the camera using the playback feature BEFORE leaving any site to ensure photos are clear and not blurred.