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Audit Process for Non Residential ATT

Additional submitted attachment is included below.

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Cc: "[Bill Brown](#)"; greg@calpipes.org; [Gary Andis](#); "[Amber Ryman](#)"; [Arthur Miller](#); Loyer, Joe@Energy; [Renee](#)
Subject: Re: the audit process for non-residential mechanical acceptance test technicians.
Date: Tuesday, August 01, 2017 9:32:14 AM
Attachments: [Audit.pdf](#)

Please find the attached document that broadly outlines an efficient and highly effective alternative to the prescribed methodology for non-residential mechanical auditing of Acceptance Test Technicians.

The document does not describe the paper audit phase as 100% of all forms are automatically audited upon entry in the registry.

Jerry Weiss

Chairman [ESCO Group](#)

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Re: the audit process for non-residential mechanical acceptance test technicians.

1. **Why the current mandated QA method will not work!**

The QA requirement that an approved individual who verifies the technician's accuracy and competence by performing the same acceptance test and comparing the results physically audit one percent of completed forms requires the following to successfully audit the ATT's work:

- a. Permission to enter the property.
- b. Permission to retest the equipment.
- c. A truck, the exact same measuring equipment (make and model), may require a bucket lift for access and second person for safety.
- d. For accuracy, the audit should be performed on a day where temperature, humidity, and atmospheric pressure are within 5% of the conditions existing during the original test.
- e. Permission to set the equipment to an unoccupied mode when, in fact, the building may be occupied.
- f. The equipment or its controls must not have been adjusted, altered, serviced or otherwise manipulated between the time the initial acceptance testing was performed and the time of audit. This includes temperature controls (thermostats) within the occupied space.

The permissions listed in a. and b. above are unlikely to be obtained from many (if not most) owners or property managers. It would be necessary for the State of California to legally empower auditors with the absolute right of access.

This method is neither economically efficient nor practical. The cost per audited form could easily exceed \$2,500.

2. **The Solution:** An independent third party auditing group consisting of retired mechanical engineers, Professional Engineers (PEs), HVACR and mechanical engineering educators, etc. trained to the same standards as the ATTs with the addition of observation training (watching other perform the tests and learn visually to identify errors in the procedure. Audits would be performed at the time Acceptance Tests are being performed by the ATT. This will be accomplished by the Following;

- a. Prior to the ATT completing 100 forms an auditor will be scheduled to shadow and observe the ATT perform Acceptance Tests.
- b. The auditor will verify that the calibration dates of the ATT's instruments are within the required dates.
- c. Auditors will observe the technician's performance. This observation would include verification of the technician's competency, and accuracy of the test as well as verifying accuracy in the completion of the form.
- d. Auditors will complete one of the forms specifically designed for the each test performed.

- e. Audit forms will be entered into the audit repository within escodocreg.com.
- f. The audit forms will be visible to the ATTCP that certified the technician, as well as the CEC.
- g. Audit forms that contain a negative evaluation of the ATT's performance and or competency will be flagged as requires action.
- h. Several supervisory auditors will be trained and charged with the duty of periodically accompanying each auditor to verify the accuracy and competence of the auditor.

The ESCO Group in partnership with Brownson Technical School et.al. has an agreement with two of the ATTCPs for auditing services. This independent third party auditing organization would act independently of ESCO Group, Brownson Technical School and the ATTCPs.

The cost of the audits would be funded by a small surcharge added to the cost of each form when entered into the registry.

This method ensures impartiality and can be cost effective.