



NRDC Comments on “Proposals for Certification of Acceptance Testing Field Technicians for Mechanical Systems and Lighting Controls” – Docket # 10-BSTD-01

Submitted by:

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On behalf of the Natural Resources Defense Council and our 1.3 million members and electronic activists, we respectfully submit these written comments as a follow-up to the oral comments we made at the California Energy Commission’s (CEC) February 27, 2012 workshop on Acceptance Testing.

In summary NRDC is supportive of expanded acceptance testing as outlined in the draft Title 24 proposal and establishment of measure specific criteria regarding eligibility to perform this testing. Acceptance testing that is done well provides greater assurance that the installed equipment/systems will deliver the energy savings the code is meant to deliver. Without post installation testing and certifications, some installed equipment and systems in new buildings may comply with the code on paper but use considerably more energy than predicted due to poor installation and/or set up. This concern is particularly relevant for some of the new systems and related controls that will be installed as a result of the updated code.

In developing the final language for acceptance testing, we encourage the CEC to consider the following guiding principles:

1. Independent Third Party – Where feasible, the CEC should require acceptance testing to be done by individuals/firms that were not involved in the design, manufacture or installation of the equipment subject to the acceptance testing. For measures where installation is relatively simple and concerns of under compliance are very low, CEC may allow the designer or installer/contractor to perform the acceptance testing.

Our recommendation for independent testing is meant to remove the potential conflict of interest whereby the installer/designer/manufacture is also the one signing off that the equipment/system they were involved with was installed and performing as promised. Imagine the contractor who is budgeted to install a system in 3 hours. If the system is not working as promised or some corners were cut, some contractors might not take the extra time to troubleshoot the system and make the necessary corrections, especially if it will require extra time or materials to bring the system into compliance.

Higher compliance rates are likely to be achieved if an independent, qualified third party is doing the testing and building occupancy permits are not granted until the areas of non compliance are properly addressed and the acceptance testing requirements are met.

2. Acceptance Testers Must Be Qualified – CEC shall establish written guidelines that define the required training and certification for acceptance testers. These requirements will be specific to the equipment or measure involved. For example, CEC should establish a different set of criteria for qualified acceptance testers for commercial HVAC systems than for those who will be performing tests of new lighting and control systems.

3. Criteria for Acceptance Testing Should be Performance Based – In establishing criteria for acceptance testing, CEC should recognize established training and testing/certification programs.

For commercial HVAC related equipment, we are supportive, as a starting point, with the proposal submitted by the sheet metal workers that would require testing and certification to be done by an individual that is certified to have fulfilled the training and testing requirements set by the Associated Air Balance Council (AABC), National Environmental Balancing Bureau (NEBB), or the Testing Adjusting and Balancing Bureau (TABB). In addition, we think CEC should be allowed to establish criteria that would allow organizations other than the three mentioned above to accredit acceptance testers provided they include *equivalent* training and testing requirements.

Similarly we think the proposal to tie acceptance testing for lighting controls to individuals certified by the California Advanced Lighting Controls Training Program (CALCTP) or an equivalent program has merit.

4. Eligibility to Perform Acceptance Testing – Any individual that meets the CEC criteria is eligible to perform Acceptance Testing. This includes engineers¹ or controls contractors that meet the CEC's third party and certification requirements. For example, a licensed professional engineer is eligible to do Acceptance Testing for commercial HVAC installations provided they are accredited by a CEC approved

¹ Some earlier comments by ASHRAE expressed their concern that professional engineers would be ineligible to perform acceptance testing. NRDC believes that Professional Engineers should be eligible to do acceptance testing provided they too pass the measure specific training and testing requirements established by the CEC. Note, even though an engineer has their Professional Engineer (PE) license it does not mean they have sufficient training, expertise to perform specific measurements or inspections tied to a very narrow area, such as acceptance testing for lighting controls or HVAC controls.

organization (e.g. AABC, NEBB, TABB, etc.), and were not involved in the design or installation of the specific equipment being tested.

5. Sufficient Capacity – CEC may alter/waive some of these requirements if there is not a sufficient capacity in the State of Certified Acceptance Testers. One option is to delay the effective date of certain requirements for a few years to provide enough time to build a sufficient population of qualified acceptance testers.