



The View from a White Truck:

A C-20 contractor perspective on Title 24 Compliance

The single largest obstacle to achieving compliance with the energy standards and meeting the energy efficiency goals set by the State through improvements primarily to existing buildings, is the sheer volume of unlicensed and “sub-licensed” contracting activity. By the California Energy Commission’s own estimates, ninety-percent (90%) of the work performed that is supposed to be regulated under the Title 24 Energy Efficiency Standards, is non-permitted. While the exact quality of this work is unknown, it is reasonable to expect that a significant portion is substandard: suffering from a wider scope of non-compliance in the “underground economy”, related to licensing, insurance, payroll, and insufficient safety and skills training for workers.

This has resulted in an business environment with ineffective enforcement strategies, where legitimate contractors are disadvantaged with no distinction for following the rules. Consequently, the illegitimate installers are able to function freely in the marketplace creating price competition that undercuts bona fide bids for work performed according to the law. With each update to Title 24 and increased stringency of the Standards, the greatest impact is felt by those who already comply thereby providing only a marginal contribution to the incremental savings. More significantly, it does little to address the far greater problem of the sheer numbers that continue to operate outside of the regulations.

Since the time field verification of HVAC installations became part of Title 24, the Institute of Heating and Air Conditioning Industries (IHACI) has been actively involved with the CEC in working to resolve the myriad issues that affect a core of licensed C-20 contractors who strive diligently to meet the requirements of compliance. It is in this same spirit of collaboration that IHACI offers these additional observations as we seek solutions for addressing the major obstacles to compliance and better performing buildings in California.

Understanding the problem completely would be a major step towards finding workable solutions for improving compliance. A general sense of this problem is expressed in the *CA Draft Action Plan for the Comprehensive Energy Efficiency Program for Existing Buildings - No Regrets Strategy 2: Support for Standards Compliance and Enforcement*¹, which clearly states the issues of insufficient compliance and enforcement as major barriers to market transformation. It also identifies the HVAC installation industry as the major culprit, although acknowledges that it is a problem that “. . . also likely occurs with many other alterations including reroofing and installation of water heaters and windows.”² The primary indicator demonstrating the extent of this problem is the lack of permitting, something that IHACI agrees is of great concern.

¹ California Energy Commission, *CA Draft Action Plan for the Comprehensive Energy Efficiency Program for Existing Buildings*, June 2013 pp. 23-25.

² Ibid p. 23

However, this is not a new discovery. Early in the initial implementation of the 2005 Standards update where HVAC change-outs were first included as field-verified measures recognized by Title 24, an ad-hoc report to which IHACI contributed equipment sales data, estimated a 3.2% compliance rate (12,095 HERS rater verifications) of what should have been approximately 381,400 jobs for which building permits should have been issued³. It would be interesting to know what, if any change may have occurred in HVAC change-out permitting activity before and after October 2005 when the rules took effect.

The *Draft Action Plan* appropriately calls out the permit problem, however, in describing the reasons behind this compliance shortfall, there is no mention of the role that the Standards themselves might play, particularly as it relates to documentation requirements (i.e., compliance forms) and the field testing and verification protocols that they represent. On its face, this simple review of Title 24 documentation over time shows a trend of increasing complexity.

| Standards Year | | # Forms | # Pages | Reference |
|-------------------|----------------|---------|---------|---|
| 2001 | Residential | 13 | 34 | http://www.energy.ca.gov/title24/archive/2001standards/residential_manual/index.html#complianceforms |
| | Nonresidential | 17 | 36 | http://www.energy.ca.gov/title24/archive/2001standards/nonresidential_manual/index.html#complianceforms |
| 2005 | Residential | 10 | 35 | http://www.energy.ca.gov/2005publications/CEC-400-2005-005/chapters_4g/Appendix-A_Compliance_Forms.pdf |
| | Nonresidential | 32 | 80 | http://www.energy.ca.gov/2005publications/CEC-400-2005-006/chapters_4g/Appendix-A_Compliance_Acceptance_Forms.pdf |
| 2008 | Residential | 47 | 108 | http://www.energy.ca.gov/title24/2008standards/residential_manual.html |
| | Nonresidential | 43 | 125 | http://www.energy.ca.gov/title24/2008standards/nonresidential_manual.html |
| 2013 ⁴ | Residential | 96 | ?? | http://www.energy.ca.gov/title24/2013standards/res_compliance_forms |
| | Nonresidential | 71 | ?? | http://www.energy.ca.gov/title24/2013standards/nonres_compliance_forms/ http://www.energy.ca.gov/title24/2013standards/nonres_acceptance_forms/ http://www.energy.ca.gov/title24/2013standards/nonres_installation_forms/ |

1 - Title 24 Compliance Forms: Standards Years 2001 through 2013 – An Historical Perspective

Obviously, not all documents would likely be used in a single compliance scenario and we recognize that a number of those that are planned for the latest 2013 update, are variants that apply to different configurations of the same measure. However, most are designed mainly with an eye on strict conformance with the Standards and based on wide interpretation by CEC staff in determining the required level of detail they contain. It is critical that when these documents require inputs based on field observation that their utility for this purpose be vetted by a reasonably-broad spectrum of target users. It is only when published for public review that stakeholders are provided the opportunity for instructive feedback, which given the number of documents is a daunting task.

³ Steve Mohasci, *Enforcement of T-24 Compliance Pertaining to Residential Alterations*, 08/22/2006.

⁴ Based on the listing of documents currently published on the Commission’s web site for the 2013 Title 24 Standards Update. Most documents are indicated as draft, therefore final numbers are not yet available.