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December 18, 2020

Docket No. 19-BSTD-03
California Energy Commission
Dockets Office MS-4 1516
Ninth Street Sacramento, CA 95814-5512
2022 Energy Code Pre-Rulemaking

Re: Comments on December 2, 2020 Workshop on Multifamily Restructuring, Economizing, ACM Approval, and Data Registry Requirements

Dear Commissioners and Staff:

I am writing on behalf of the Joint Committee on Energy and Environmental Policy (“JCEEP”) to comment on the proposals presented at the December 2, 2020 Workshop on Multifamily Restructuring, Economizing, ACM Approval, and Data Registry Requirements. The Western States Council has concerns over two of the proposals presented: (1) applying the same duct testing requirements for low-rise multi-family buildings to multi-family buildings greater than three stories in height; and (2) deleting the long-standing provisions regarding creation of a nonresidential data registry.

JCEEP is an advocacy organization that represents the California sheet metal workers’ local unions and over 25,000 technicians working for over 600 contractors throughout California. JCEEP’s mission is to promote responsible environmental and indoor air quality and energy policy in California as it pertains to and impacts the HVAC industry. JCEEP was formed on the premise that air handling systems need to be designed, built and maintained not just to manage comfort levels of indoor air, but also to protect against health threats and to ensure energy efficiency. JCEEP’s members have over 15 training facilities throughout the state and thousands of workers being trained daily in HVAC specialties, such as testing, adjusting and balancing, commissioning, green building design, energy efficiency, and indoor air quality.
A. Opposition to Applying Same Duct Testing Requirements for Low-Rise Multi-Family Buildings to Multi-Family Buildings Greater than Three Stories in Height

At the workshop, staff announced that they were proposing to extend the duct leak test requirements currently applicable to multifamily buildings three stories or less to also include multifamily buildings four stories or higher. JCEEP supports requiring duct leak testing for all multi-family housing, but disagrees that the duct testing requirements for 1-3 story multi-family buildings should be the same as the requirements for multi-family buildings over four stories in height. Larger buildings tend to have more complex systems and have much greater energy usage. Duct leaks in these larger buildings have the potential to result in significantly greater energy efficiency losses than in smaller buildings. Accordingly, more rigorous and reliable duct testing should be required for multi-family buildings over four stories in height than for 1-3 story multi-family buildings.

Duct leak test methods vary in their accuracy and reliability. The RA3.1.4.3 duct leak test requirements for 1-3 story multi-family buildings rely on the ASTM E 1554-07 Standard Test Methods for Determining Air Leakage of Air Distribution Systems by Fan Pressurization - Test Method D. This method provides an estimate of duct leakage based on the system design and on limited testing, but does not take into account leakage from non-duct components of the system. The accuracy of this method can vary widely depending on the system, the leakage rates of components that are not tested, and the quality of the installation of the various components. Furthermore, RA3.1.4.3 allows duct leak testing at pressures significantly below normal operating pressures and thus does not accurately measure all leaks that would occur during normal operation.

RA3.1.4.3 is also problematic because it fails to require any training or certification for the technician performing the duct leak test. Utility-funded studies have found the vast majority of HVAC installers don’t have the technical training, knowledge, skills, or abilities to properly install systems, resulting in high failure rates for job performance on even routine tasks. In order to be reliable and

accurate, a duct air leakage test must be performed by a properly skilled, trained, and certified technician. The need to use sufficiently trained and qualified personnel is also recognized in the national testing standards. ASTM E 1554-07 Standard, Section 1.5, states that “The proper use of these test methods requires knowledge of the principles of air flow and pressure measurements.”

JCEEP recommends requiring multi-family buildings four stories or higher to perform duct testing compliant with the SMACNA HVAC Air Duct Leakage Test Manual, rather than the less rigorous and reliable methodology required under RA3.1.4.3. In addition, multi-family buildings four stories or higher should require duct testing by qualified testing, adjusting, and balancing technicians (AABC, NEBB, or TABB) or by Duct Air Leakage Technicians certified by the International Certification Board (ICB) that are also certified Mechanical Acceptance Test Technicians.

B. Opposition to Eliminating the Requirement to Develop a Nonresidential Data Registry

At the workshop, staff announced that they were proposing eliminating the requirements for the development of a Nonresidential Data Registry that have been in place since 2008. In its place, they proposed relying on more limited, unaggregated information that would be provided by each of the various mechanical and lighting control ATTCPS. JCEEP has long supported the development of a Nonresidential Data Registry as an essential tool to increase compliance with and enforcement of Title 24 requirements. Even today, numerous jurisdictions fail to collect, require or review the Energy Commission’s Title 24 compliance forms, installation forms, and/or acceptance forms.

The Nonresidential Data Registry would improve enforcement by providing a single registry for building officials to confirm that all documents have been submitted. It would also provide an automated method for building officials to confirm that all acceptance tests required pursuant to the work identified in the compliance forms has actually been performed. A central registry would also allow the Commission to actually evaluate compliance and enforcement of its forms. The Nonresidential Data Registry would have provided a standardized method to collect, evaluate, and monitor an extensive amount of data, from both the ATTCPS and local jurisdictions, which would assist in compliance and enforcement. A central
Data Registry is also a critical first step in creating an equipment tracking system to address the pervasive problem of underground construction work performed without permits and without compliance with Title 24 acceptance test requirements.

JCEEP is concerned that a decision to forego a central Nonresidential Data Registry and instead rely on separate reports or information provided by multiple ATTCPs will result in a complete loss of the compliance and enforcement benefits that would have been achieved with a central registry. It is unclear how information provided by multiple ATTCPs will be useful unless aggregated into a single database. Furthermore, the ATTCPs only collect lighting control and mechanical acceptance test forms. Information on compliance forms, installation forms, and acceptance test forms for other types of building components that do not require acceptance testing would not be collected.

JCEEP urges the Commission to remain committed to establishing a central registry. Adding stricter and stricter standards to the Code without effectively ensuring compliance will not achieve California’s energy efficiency goals. Moreover, the lack of compliance and enforcement hurts those contractors that strictly comply with the Title 24 compliance, installation and acceptance test documentation requirements but have to bid against contractors that can cut costs by ignoring these requirements altogether.

JCEEP appreciates the opportunity to provide these comments.

Sincerely,

[Signature]

Thomas A. Enslow
Counsel for the Joint Committee on Energy and Environmental Policy

TAE:ljl