



C . A . S C H R O E D E R , I N C .

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January 23, 2015

To: Commissioner Andrew McAllister
California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Docket: 14-BSTD-01

California Energy Commission

DOCKETED

14-BSTD-01

TN # 74371

JAN 23 2015

RE: Draft 2016 Building Energy Efficiency Standards

Dear Commissioner McAllister:

C.A. Schroeder, Inc./CASCO notes that the vast majority of residential and small commercial HVAC systems installed in California use flexible ducts. We strongly object to JCEEP proposed amendments to the draft 2016 Building Energy Efficiency Standards (BEES) to limit the use of flexible duct in construction (Section 120.4 and 150(m)(10)). Their stated reasons were due to pressure loss and poor installation of flexible ducts. We acknowledge that any building product can be installed poorly. That is why we continue to support the California Energy Commission (CEC) in the development of building installation standards and quality installation inspections and diagnostics to document properly installed HVAC systems.

To combat poor field installations of HVAC systems the CEC in cooperation with participating building product suppliers have developed strong installation guidelines as found in the CEC's 2013 Residential Manual Section 4.4.1 Mandatory Measures for Air Distribution System Ducts, Plenums and Fans. This over 30 page section of the Residential Manual is exemplary of how California's building standards have evolved to improve the performance of HVAC systems.

To ensure system performance the 2013 BEES require ducted central forced air HVAC systems to meet the mandatory requirements of >350 CFM/ton and fan efficacy of ≤ 0.58 W/CFM. These HVAC system requirements must be 100% tested by the installing subcontractor. In addition, these mandatory performance requirements are then tested by a CEC certified Home Energy Rater (HERS) using CEC approved sampling protocols for quality control. These mandatory performance requirements of the HVAC system can only be met if the system is performing to sound design specifications and is a quality installation. As noted above the vast majority of HVAC systems that pass these rigorous quality standards use flexible ducts.

We strongly object to JCEEP's proposal that disregards the CEC's HVAC quality installation guidelines and quality test procedures. Limiting flexible ducts in residential and small commercial buildings to five feet maximum installed length is arbitrary and capricious.



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We continue to support the CEC for approval of fair and cost-effective BEES and look forward to maintaining the preference of the vast majority of the building industry to have the choice to use flexible ducts which when installed to the CEC requirements are the most cost effective ductwork for HVAC systems. We support the development of the 2016 Standards without any arbitrary restrictions on flexible ducts.

Best regards,

A handwritten signature in black ink that reads "William Griffith". The signature is fluid and cursive, with a large, stylized initial "W".

William Griffith
Vice Pres./Gen. Mgr.

cc: Rob Oglesby, CEC Executive Director
Dave Ashuckian, CEC Deputy Director of the Efficiency & Renewable Energy Division
Patrick Saxton, CEC Advisor to Commissioner McAllister