



Accurate Air Engineering, Inc.
Compressed Air Efficiency Services Division
A Department of Energy *Save Energy Now ALLY*

January 2, 2013

California Energy Commission
Attention: Docket No. 12-BSTD-5
Dockets Office
1516 Ninth Street, MS-4
Sacramento, CA 95814

California Energy Commission

DOCKETED
12-BSTD-5

TN # 69009

JAN. 02 2013

Re: Draft 2013 Nonresidential Compliance Manual: Comments of Accurate Air Engineering on Chapter 10 Covered Processes; Subsection 10.6 Compressed Air Systems (Docket No. 12-BSTD-5)

Dear California Energy Commission Members:

Accurate Air Engineering, Inc., on behalf of our employees and business partners, is pleased to support the Draft Nonresidential Compliance Manual. Accurate Air Engineering, Inc. supports the latest draft to help building owners, architects, engineers, designers; energy consultants, builders, enforcement agencies, contractors and installers, and manufacturers comply with and enforce California Building Energy Efficiency Standards for nonresidential buildings.

Accurate Air Engineering, Inc. has been in the compressed air business in California since 1964 and has routinely worked within and supported the IOUs programs. As a company with interests in the entire state of California, we appreciate the time and effort the IOUs have taken to consider stakeholder feedback and also appreciate the opportunity to provide comments in this forum. We request that you consider our comments below so that code compliance and enforcement is clear to all affected stakeholders.

Comments:

10.6 Compressed Air Systems (120.6(e))

10.6.2 Mandatory Measures 120.6 (e)

Subsection E. Trim Compressor and Storage (120.6(e)1) – In “*Compliance Option 1: VSD-controlled Trim Compressor (120.6(e)1A)*”, we agree that the *Largest Net Capacity Increment* is well defined. We also believe that the application of a VSD-controlled air compressor is well stated and is mandated to be 1.25 times the *Largest Net Capacity Increment*.

However, in “*Compliance Option 2: Other Compressors as Trim Compressor (120.6(e)1B)*”, we believe more effort should be put into explaining this option and how “other” compressors can be applied. We believe the intent of the code was to allow air compressors with load/unload controls and/or variable displacement air compressors as long as they meet the part-load performance as defined by the *Effective Trim Capacity*. This section does go into detail on how to determine the *Effective Trim Capacity*, but uses examples of specific power curves for a typical VSD-controlled air compressor. We agree that these curves are readily available from most manufactures on VSD-controlled air compressors, but this is not true for fixed-speed air compressors with load/unload controls or variable displacement air compressors (i.e. fixed-speed air compressor CAGI data sheets only supply performance at full load and zero flow).



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Accurate Air Engineering, Inc.'s Comments to the CEC on *Draft 2013 Nonresidential Compliance Manual*
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Cont.

In view of this, we question how other compressor types can be applied and subsequently enforced with the examples given in the compliance manual. In addition, we question what resources will or can be used to determine the *Effective Trim Capacity* of the other compressor types. So it is clear to all affected stakeholders, we believe examples of, and resources for fixed-speed air compressors with load/unload controls or variable-displacement design be included in "*Compliance Option 2: Other Compressors as Trim Compressor (120.6(e)1B)*".

Thank you for consideration of these comments and please contact me at kharris@accurateair.com or (661) 619-2470 if you have any questions,

Sincerely,

Kyle Harris
Division Manager

Cc: Accurate Air Engineering, Inc. Management Team
Mike Bakalyar, Manager, Enhanced Services, Gardner Denver, Inc.