

STATE OF CALIFORNIA
STATE AND CONSUMER SERVICES AGENCY
CALIFORNIA BUILDING STANDARDS COMMISSION
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Office Use Item No. _____

PARTICIPATION COMMENTS FOR THE NOTICES DATED APRIL 22, 2011
Written comments are to be sent to the above address.

WRITTEN COMMENT DEADLINE: JUNE 6, 2011

Date: 06/06/2011

From:

Mike Moore, P.E.
Name (Print or type)

Mike Moore
(Signature)

Newport Ventures, representing Broan NuTone

Agency, jurisdiction, chapter, company, association, individual, etc.

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I/We ~~(do)~~(do not) agree with:

[X] The Agency proposed modifications As Submitted on Section No.

and request that this section or reference provision be recommended:

[] Approved [] Disapproved [] Held for Further Study [X] Approved as Amended

Suggested Revisions to the Text of the *PROPOSED* REGULATIONS:

A). CHANGE THE PROPOSED REGULATIONS FOR SECTION 5.507.4 AS FOLLOWS:

SECTION 4.506 INDOOR AIR QUALITY AND EXHAUST

4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the following:

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
 1. Humidity controls shall be capable of adjustment between a relative humidity ~~level of range equal to or less than 50 percent, but shall not exceed~~ and 80 percent. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in).

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower, or tub/shower combination.
2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*.

Reason: [The reason should be concise if the request is for “Disapproval,” “Further Study,” or “Approve As Amend” and identify at least one of the 9-point criteria (following) of Health and Safety Code §18930.]

HCD has proposed several improvements within Section 4.506, including requiring mechanical ventilation in each bathroom, expanding the options for humidity control, and clarifying that integral lighting is subject to the requirements of the California Energy Code. However, we believe that the proposed language is overly restrictive in one area, where it imposes restrictions on the upper limit of the relative humidity addressed by the controls (i.e., “shall not exceed 80 percent”). This restriction can result in installation of controls whose functionality is inconsistent with the intent of ASHRAE 62.2, which is adopted by Title 24, Part 6, Sec. 150(o). As such, it appears that the proposed language could contradict the requirements of Section 18930(a)1 Health and Safety Code.

Section 5.2 of ASHRAE 62.2 requires that local mechanical exhaust systems “shall be designed to be operated as needed by the occupant”. Section 5.2 states that control devices (e.g., humidity controls) are permissible, “provided they do not impede occupant control”. By setting a fixed upper limit on the humidity controls (e.g., 80%), it can be argued that the occupants’ ability to control the fans is impeded. A theoretical corollary would be if the California Green Building Standards Code required that thermostats have a maximum heating or a minimum cooling setpoint. We can imagine the frustration that such a requirement would generate. In the case of a humidity controller for a bathroom exhaust fan, imposing a high limit to the relative humidity setpoint can also cause occupant frustration if the fan operates when not wanted. If the occupant has no recourse but to disable the humidity control for the fan, then this outcome is likely, and Section 405.6 fails in its objective of providing the opportunity for a healthier indoor environment with automatic humidity controls.

One example of when the homeowner may want to set a humidity control above 80% is when leaving for vacation so that no energy would be wasted by running the fan unnecessarily in the homeowner’s absence (similar to setting back the thermostat on the water heater or setting back/turning off the air conditioner). In this case, setting the humidity control above 80% would essentially ensure that the fan will not operate as a function of ambient relative humidity levels that could occur naturally in the homeowners’ absence.

In addition to the problems with impeding occupant control, another issue encountered with setting a relative humidity upper limit of 80% is the lack of market available products that fit this criterion. For example, neither Broan NuTone nor Panasonic (two of the largest manufacturers of bath exhaust fans) have fans/controllers that meet this criterion. Introducing an upper limit at 80% would place contractors and builders in a difficult position to find a range of products that would satisfy the proposed change in this section.

Despite all of the reasons to not impose an upper limit on the relative humidity setpoint of the controller, we do believe that it is worth retaining the reference to a setpoint range in which the control must be able to operate. A range of 50-80% represents a reasonable range for relative humidity set points of *occupied* units and therefore provides good guidance for contractors who will be installing the control. However, just as 50% should not be a hard lower limit imposed by code on the control, 80% should not be a hard upper limit on the control. By removing these limits, and ensuring that the humidity control can operate within the range of 50-80%, HCD can ensure that occupants have control over the unit, that there is no apparent conflict between ASHRAE 62.2 and California Green Building Standards Code requirements, that builders have multiple product options for compliance, and that energy is not unnecessarily wasted. Our comment is structured to achieve these objectives.

HEALTH & SAFETY CODE SECTION 18930

SECTION 18930. APPROVAL OR ADOPTION OF BUILDING STANDARDS; ANALYSIS AND CRITERIA; REVIEW CONSIDERATIONS; FACTUAL DETERMINATIONS

- (a) Any building standard adopted or proposed by state agencies shall be submitted to, and approved or adopted by, the California Building Standards Commission prior to codification. Prior to submission to the commission, building standards shall be adopted in compliance with the procedures specified in Article 5 (commencing with Section 11346) of Chapter 3.5 of Part 1 of Division 3 of Title 2 of the Government Code. Building standards adopted by state agencies and submitted to the commission for approval shall be accompanied by an analysis written by the adopting agency or state agency that proposes the building standards which shall, to the satisfaction of the commission, justify the approval thereof in terms of the following criteria:
- (1) The proposed building standards do not conflict with, overlap, or duplicate other building standards.
 - (2) The proposed building standard is within the parameters established by enabling legislation and is not expressly within the exclusive jurisdiction of another agency.
 - (3) The public interest requires the adoption of the building standards.
 - (4) The proposed building standard is not unreasonable, arbitrary, unfair, or capricious, in whole or in part.
 - (5) The cost to the public is reasonable, based on the overall benefit to be derived from the building standards.
 - (6) The proposed building standard is not unnecessarily ambiguous or vague, in whole or in part.

- (7) The applicable national specifications, published standards, and model codes have been incorporated therein as provided in this part, where appropriate.
 - (A) If a national specification, published standard, or model code does not adequately address the goals of the state agency, a statement defining the inadequacy shall accompany the proposed building standard when submitted to the commission.
 - (B) If there is no national specification, published standard, or model code that is relevant to the proposed building standard, the state agency shall prepare a statement informing the commission and submit that statement with the proposed building standard.
- (8) The format of the proposed building standards is consistent with that adopted by the commission.
- (9) The proposed building standard, if it promotes fire and panic safety as determined by the State Fire Marshal, has the written approval of the State Fire Marshal.