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To: <Mmartin@energy.state.ca.us>, <Jholland@energy.state.ca.us>
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Dear Mr Martin and Mr Holland,

It has come to my attention that you are working on energy standards for the state of California that include requirements for commercial walk in refrigerator doors to be self closing.

Kason industries is the predominant supplier of hardware for walk in refrigerator and freezer doors in the United States. Kason supplies most of the manufacturers of walk in refrigerators used in California with the door hardware. See our website for a general overview of Kason products <http://www.kasonind.com> <<http://www.kasonind.com/>> .

My general comments on the proposal to require that commercial walk in doors self close from one inch of full closure:

- 1) On standard restaurant and food service size doors this can be achieved with existing technology. Doors in the 2-1/2 to 4 foot wide range that are 7 feet tall can self closing. To do this reliably they should be fitted with cam rise hinges or spring assist cam rise hinges magnetic and an overhead door closer. It is also the most conducive to self closing to use a magnetic gasketed door instead of a mechanical latched door. While a mechanically latched door can be self closing it is more subject to the choice of the latch, how freely the door swings, and if the box is properly vented to allow trapped air to escape.
- 2) Large warehouse and storage doors are not practical to require self closing action from one inch of closure. These doors may be 5, 6, 7 feet wide or larger and can be 8 or 10 feet tall, or possibly taller. Most of these doors require mechanical latching to seal compression type gaskets. These doors displace large volumes of air when closed and usually require being pushed shut or slammed. It is my opinion that a size limit should be placed on the self closing door requirement. To install a door closing device to provide pressure to self close a large door will make the door very difficult to open and probably exceed the OSHA and UL requirements for door opening force. Additionally these doors are generally for vehicles or pallet jacks to pass thru. Requiring them to self close can prove a hazard to the people moving goods in and out.
 - a. The self closing requirement should be limited to the kitchen and food service size doors. A maximum of 4 foot by 7 foot is reasonable.
 - b. On large doors I propose alternate method of energy savings. Use a strip curtain or a flex door as a traffic door. Goods and people can pass thru the strip door but the loss of cooled air will be minimized.
- 3) Some large warehouse or processing application doors are sliding doors the size of a truck bay, either powered or non powered. These should not have the same standards applied as if they were small walk thru foodservice size doors. Limitation of open time, use of strip curtains, and use of powered air curtains may be the best way to minimize energy loss.
- 4) Specific pieces of equipment should be exempted if they are

process chambers and not storage freezers. An example is a blast freezer. It is loaded with goods or produce then cycled. After cycling the door is left open for loading and unloading

5) Proper venting for pressure relief is critical for a door to self close and to stay closed during thermal cycling of a refrigerator or freezer. If a smaller enclosure such as a fast food restaurant uses is not vented the door will stop before it is fully closed and encounter resistance to closing. (Like the door on a old Volkswagen bug with the windows rolled up) Additionally, the door can pop open if the unit goes into the defrost mode and the air trapped with in expands. Slamming of an adjacent door ,or a glass display door in a convenience store type walk in, can cause another door to pop open. A properly sized pressure relief vent will remedy these situations.

Please feel free to contact me and exchange comments

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