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April 15, 1999

State Fire Marshal's Office
 5150 Florida Boulevard
 Baton Rouge, LA 70806
 504 925-4911, FAX 504 925-4241

Re: Miracle Vents, As Used For Sprinkler System Freeze Protection

Attention: Mr. Jean C. Carter, Jr.
 Architect Supervisor

Dear Mr. Carter;

I response to your letter dated March 17, 1999, requesting my concurrence with your follow-up issues, I submit the following:

Question 1.: You have denoted square footage and cubic footage guidelines in the vent brochure. Do these guidelines acknowledge the benefits of roof deck insulation or ceiling insulation in the attic cavity?

Answer: Studies were made under several scenarios, including Miracle Vents incorporated into an attic cavity with no insulation at all. The end result produced data, which does support the square footage and cubic footage guidelines in the vent brochure. In other words, using these guidelines, to determine quantities and locations of Miracle Vents in a building, will prevent freezing temperatures in attics, regardless of whether or not the attics are insulated.

Concurrence: My answer as shown above is correct. Lack of insulation on the roof will mean that the Miracle Vents will stay in the open position longer than if the roof was insulated and therefore cost more to operate. This higher operating cost would also apply to any other type of heating used. Insulation on the ceiling is detrimental to heating an attic, although it is not detrimental enough to be considered significant. However, if the ceiling does not have any insulation, the

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SPRINKLERS (H.A.S.M.C.)
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heating of the attic will be helped by heat penetrating the ceiling and going into the attic area.

Question 2.: What about venting quantities required for a low height attic cavity versus a high slope cavity.

Answer: Studies were made using all different types of attic cavity profiles. The Miracle Vent manufacturer's literature provides guidelines for quantity of vents, depending on size, volume, and height of cavity.

Concurrence: This is correct. If these guidelines are followed, the sprinkler system piping will be adequately protected against freezing.

Question 3.: What if the attic is ventilated via gravity or power ventilation?

Answer: Studies were made utilizing vented and non-vented attics. The Miracle Vent manufacturer's guidelines for quantities are the factory recommendations, regardless of other types of venting occurring in the attic.

Concurrence: I evidently misunderstood your question when you asked Question 3. Studies have shown that Miracle Vents will adequately protect the sprinkler system pipes from freezing, even when the attic is ventilated. However, these studies were conducted using gravity ventilation only. No studies were ever conducted using power ventilation and I would not recommend Miracle Vents for such conditions. Actually, no type of attic heating would be adequate to attempt to heat an attic with powered ventilation in operation at the same time. I can't even imagine such a scenario actually happening, except by accident.

Question 4.: Does the manufacturer warrant effective freeze protection compatibility with the variables listed above?

Answer: Yes. The manufacturer carries liability insurance to protect a building owner, who suffers adverse effects of freezing conditions, when designed per manufacturer's guidelines.

Concurrence: Yes, as above stated.

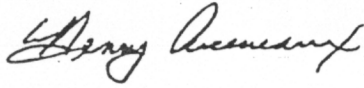
I sincerely want to thank you for taking the time to clarify the above questions. I deeply appreciate your interest in Miracle Vents. If you have any additional question, please do not hesitate to contact me.

It's been a while since I demonstrated Miracle Vents to your people. If you think that another demonstration at your office might be beneficial to your people, I'd be happy to set it up with you.

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Again, thank you very much and **HAVE A GREAT DAY.**

Sincerely,
MIRACLE VENT, INC.



Henry Arceneaux
President

Cc: V. J. Bella
Jerry Jones
Henry Reed
Don Zeringue
Pat Slaughter
Pat Day

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