

Nancy Donley
President of S.T.O.P. –Safe Tables Our Priority

**Summary Points of Testimony before the Subcommittee on Oversight and
Investigations of the Committee on Energy and Commerce
U.S. House of Congress**

November 13, 2007

1. The change in appearance of meat when it undergoes a MAP with CO and the safety issues that this poses for consumers.
2. Adding CO to the traditional MAP system used by industry for years (that includes CO₂ and Nitrogen) has no additional antimicrobial effect as has been posited by proponents.
3. The need for labeling on meats packaged in MAP with CO.
4. MAP with CO should have been considered a color additive and gone through a general rule-making process.
5. Calling on FDA and USDA to revisit the GRAS approvals and to re-evaluate how they accept the science of companies seeking such approval.

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I'd like to thank Chairman Stupak and members of the Subcommittee on Oversight & Investigations for giving consumers an opportunity to weigh in on a subject that is critical to our very existence—the safety of our food.

My name is Nancy Donley and I am the president of S.T.O.P.—Safe Tables Our Priority. S.T.O.P. is a national, grassroots, non-profit organization whose mission is to prevent illness and death from pathogens in the food supply. Our work involves sound policy advocacy, building awareness of foodborne risk and its management, and providing victim assistance. Our members include families who have suffered illness and loss from a broad spectrum of food types including contaminated meat and poultry, produce, juice and RTE processed foods. I personally became involved in the issue of food safety after the death of my 6-year-old son, Alex, from *E. coli* O157:H7 poisoning from contaminated meat in 1993.

S.T.O.P. has been engaged in the debate over the use of carbon monoxide (CO) in modified atmosphere packaging, or MAP, for the past several years. I'd like to state at the onset that our concern does not stem from a belief that human exposure to the trace

amounts of carbon monoxide used in this process are a cause for concern. Rather, our concerns center on the following three areas:

1. The change in appearance of meat when it undergoes a MAP with CO and the safety issues that this poses for consumers.
2. The lack of labeling requirements for meat that is packaged in this manner.
3. The process used by FDA and USDA to grant GRAS status to meat packaged with CO as part of a MAP system.

1. Safety Issues

I think that it is important to emphasize that the MAP systems that use carbon dioxide (CO₂) and nitrogen (N₂) have been used for years. One of the benefits resulting from this combination of gases produces an antimicrobial component. The current debate centers around the addition of small amounts of carbon monoxide to this process. Adding CO causes a chemical reaction to occur that changes the color of the meat to a very bright red, and it maintains that color indefinitely until the package is opened. This unnatural but appealing color change is the sole purpose for adding CO into the process and we consider it to be deceptive. The addition of CO to the MAP process does not contribute any additional antimicrobial properties that the traditional MAP system using CO₂ and N₂ doesn't already possess. Proponents are disingenuously suggesting otherwise.

Our concern is that the safety of the meat packaged in this manner might be severely compromised and the consumer would never know it because it would still look completely fresh. Microorganisms, including deadly pathogens, breed whenever there is a breach in the cold chain. Meat will turn brown or grey if it has been temperature abused, signaling that its freshness and safety have been compromised. However, meat produced in a MAP system with CO, will still appear fresh and safe even after extreme temperature abuse, because its color will remain bright red. High pathogenic levels could be present, putting the consumer at risk of serious foodborne illness.

The fact that meat that has been packaged in the more traditional method undergoes a readily-apparent color change helps keep the production, distribution and retail system honest. Meat processors, storage facilities, transportation carriers and retail establishments have strong incentives to maintain the cold chain because otherwise the product is easily identified as compromised and becomes un-saleable. That built-in safety check disappears when CO is used as part of a MAP process because temperature abuse is not apparent. Unsafe meat will make it through the distribution system, into retail stores and ultimately into consumers' homes because it looks completely fresh. While color is not the only factor used for determining freshness, it is a tool heavily relied upon by consumers.

One of the arguments put forward by proponents of this technology is that a spoiled product, even though appearing fresh, would produce an ‘odor’—a highly subjective term—once opened. We take exception on two counts.

1. There are people with compromised olfactory senses who may not notice an off odor. Studies show that this is a common effect of aging, so seniors, one of the populations most at risk of contracting the most severe forms of foodborne illness, are put at increased risk.¹
2. Odors are only detectable once the package is opened, which is after the purchase has been made and the meat is in the customer’s home. There certainly are economic concerns here. People live very busy lives and often find it easier just to toss out the spoiled item than to take the time to return it to the grocery store and put up with the hassle. People lose or throw out their store receipt and can’t return it. Maybe they froze the product and months go by before they finally take it out to use it, only to discover that the product is spoiled. In all of these instances, the customer has been cheated.

2. The Need for Labeling

¹ Charles J. Wysocki & Marcia L. Pelchat, *The Effects of Aging on the Human Sense of Smell and Its Relationship to Food Choice*, 33(1) Crit. Rev. Food Sci. Nutr. 63,63 (1993). Charles J. Wysocki & Avery N. Gilbert, *National Geographic Smell Survey: Effects of Age Are Heterogenous*, 561Ann. N.T. Acad. Sci. 12 (1989).

These and other factors all point to the need for labeling to identify any meat that has been packaged with a MAP system using CO. Consumers have the right to know what processes and additives have been used in the food they purchase. This means full disclosure with all pertinent information. In this case the label would need to state that CO was used in the packaging causing the meat to maintain a bright red color which should not be considered an indicator of freshness. It should also state that the customer must heed the use/freeze by date listed and that to do otherwise is not safe. A lack of full disclosure in labeling is equally as deceptive as no disclosure at all.

It is only with the inclusion of complete information in labeling that consumers can make informed purchasing and consumption decisions. I mentioned earlier that color is a tool heavily used by consumers to judge if their meat is fresh and safe. We are concerned that people will choose to eat the meat packaged with CO as part of the MAP system after the use-by date because they won't want to throw out what appears to be a perfectly fine-looking \$10.00 steak. Hence the need for clearly-worded information.

3. FDA and USDA's GRAS Approval process

Lastly, I want to comment on the process used by FDA and USDA, in 2002 and 2004, to grant GRAS status to meat packaged with CO as a part of a MAP system.

First and foremost, we believe that the use of CO as part of a MAP system should have been considered a color additive and gone through a general rule-making process.

Obviously, that did not happen.

Regardless, the way that our regulatory agencies handled these GRAS petitions, and one can only surmise that they handle others in a similar fashion, causes us deep concern.

I am neither a scientist nor a statistician, but even I can tell after looking at the studies submitted to FDA and USDA by companies in support of their petitions, that the science was not sound.

1. The numbers of samples taken of ground beef were extraordinarily small (6 in one study and 15 in the other).
2. In each study, all samples were taken from one plant at a single point in time.
3. The temperature abuse study was done at 50 degrees Fahrenheit, colder even than room temperature.
4. The sampling was done at the point of production rather than on retail product that had passed through the cold chain. FDA has acknowledged that temperature abuse is common throughout distribution and retail markets.²

² FDA Food Code, supra note 68 at 547.

As a consumer who relies on our government to evaluate processes used on the foods I feed my family, I'm appalled. FDA and USDA need to revisit these GRAS approvals and re-evaluate how they accept the science of companies seeking to use new additive and food technologies.

Thank you for your attention and I will be happy to answer any questions.