Richard Theuer
7904 Sutterton Court
Raleigh, NC 27615

September 9, 2013

National Organic Standards Board
c/o USDA–AMS–NOP
1400 Independence Ave. SW.
Room 2648–S, Mail Stop 0268
Washington, DC 20250–0268

Members of the NOSB,

I am the pro bono submitter of the petition to add ammonium hydroxide to the National List at §205.605. The NOSB Handling Subcommittee in its Proposed Action recommends rejection of my petition, primarily because of the recognized hazards of ammonia and concentrated solutions of ammonium hydroxide. I attempted to provide a very complete description of the properties of ammonium hydroxide in my petition. I apparently succeeded - too well!

I did not succeed as well in highlighting the choice before the NOSB.

Carbon dioxide is carried over in steam and forms corrosive carbonic acid in condensate. The carbonic acid concentration is less than 25 ppm, but neutralization of this carbonic acid is essential to avoid corrosion.

The choices to neutralize this carbon dioxide/carbonic acid are few.

If you use ammonium hydroxide (at less than 25 ppm of ammonia) to neutralize the carbonic acid, the condensate will contain about 60 ppm of ammonium carbonate, a 0.006% solution. Ammonium carbonate is a GRAS substance currently allowed on the National List as a leavening agent.

The National List currently allows use of three synthetic chemicals to neutralize this carbon dioxide/carbonic acid: cyclohexylamine, diethylaminoethanol, and octadecylamine.

As a former member of the NOSB who consulted with other former members of the NOSB in preparing my petition, I would be infinitely more comfortable explaining to a consumer that the condensate touching an organic food or the packaging of an organic food contains safe ammonium carbonate, the original leavening agent in animal crackers, than trying to defend the “organic” chemicals cyclohexylamine, diethylaminoethanol, and/or octadecylamine.

I petitioned for allowance of ammonium hydroxide prior to the next Sunset review of cyclohexylamine, diethylaminoethanol, and octadecylamine. I did this to give organic food processors who rely on carbon dioxide neutralizer(s) some hope that a safer alternative would be available that would enable them to continue to process foods labeled as organic.

Regarding safety, as my petition describes, the Consumer Product Safety Commission regulates ammonia water sold to consumers. Household ammonia water currently available in the supermarket contains 3% (30,000 ppm) to not more than 5% (50,000 ppm) free ammonia. The level of ammonia required to neutralize steam condensate is more than a thousand times less than the concentration in household ammonia water!

The choice is yours. Please consider these realities as you make your decisions on ammonium hydroxide now and the current three synthetic neutralizing amines in the future Sunset review.

Sincerely,

Richard Theuer