

Dr. Christopher J. Portier
Director of the National Center for Environmental Health
And Agency for Toxic Substances and Disease Registry
4770 Buford Highway NE
Atlanta, GA 30341-3717

Dear Dr. Portier,

This letter requests an Exposure Investigation be conducted to augment an environmental public health investigation being conducted by the Vermont Department of Health, VDH, and the Vermont Agency of Agriculture, Food and Markets, VAAFM, to evaluate human exposure to formaldehyde that is used to treat dairy cattle for hairy heel wart. Several residents of Richford, VT have voiced concerns to VDH and VAAFM that their respiratory irritation, breathing difficulties (and other health effects) are due to formaldehyde exposure.

The formaldehyde, typically a 37 percent industrial grade formalin solution diluted to between 2 and 5 percent, is used by several local dairy farms in a footbath. The formaldehyde is added to the footbath to treat papillomatous digital dermatitis, commonly known as hairy heel wart; a bovine skin disease that is a major cause of lameness in dairy cattle. One cost effective treatment is to walk the cattle through a formaldehyde solution footbath as they move from the barn to the milking parlor. The spent solution is washed from the footbath into the manure storage pit. When the ground is not frozen, the slurry from the manure storage pit is periodically drained and spread onto neighboring agricultural fields as a soil amendment. Several residents have reported that their symptoms are most prevalent during and immediately after manure spreading.

To investigate these concerns VDH and VAAFM have been working together to gather information about the potential exposure and public health effects associated with formaldehyde use in the footbath and subsequent disposal. Results of tests of the worker environment in the barn include the formaldehyde concentration in the indoor air of the barn and breathing zone samples collected from air monitors worn by representative dairy farm employees. Those results did not identify formaldehyde concentrations above one comparative measure, the OSHA permissible exposure limit/time weighted average, in the immediate vicinity of formaldehyde solution sources. Further, worker breathing zone air samples showed no detectable formaldehyde. The latter is important because formaldehyde is a known human carcinogen. It must also be noted that the OSHA standard for occupational exposure to formaldehyde is well above a concentration that would be acceptable for the general public.

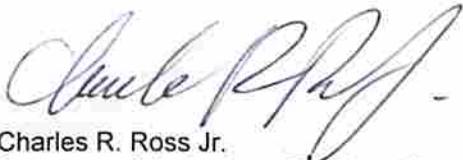
Furthermore, we are not able to assess how spreading manure on the farm fields impacts the formaldehyde levels in ambient air at residential properties near the farm. Several homes in the community are located across the street from agricultural fields that routinely treated with the manure.

To fully assess the potential exposure of neighboring residents, we ask that ATSDR conduct air sampling representative of the air concentrations before, during and immediately after the manure spreading operations. Staff from our agencies are available to assist with pre-sampling planning, sample collection, and data evaluation. The results will be most valuable in our efforts to determine whether concentrations of formaldehyde in off-site air are at levels that could pose a public health hazard. This information is necessary for us to determine whether voluntary or regulatory action is needed to reduce off-site exposures.

Should you have any questions about our request, please contact our leads on this project, Cary Giguere of AAFM and Dr. Bill Irwin of Health.

We appreciate your consideration of this request for an Exposure Investigation, and look forward to potentially answering many questions about this public health issue.

Sincerely,



Charles R. Ross Jr.
Secretary of Agriculture, Food and Markets



Harry Chen, MD
Commissioner of Health

