CCLHO

California Conference of Local Health Officers

Department of Health Services
1501 Capitol Avenue, Suite 71.6065
P.O. Box 997413, MS 7003
Sacramento, CA 95899-7413
Fax: (916) 440-7595 Office: (916) 440-7594
Roberta Lawson, RDH, MPH, Executive Administrator

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Dear Health Officer:

The California Conference of Local Health Officers (CCLHO) has reviewed current knowledge and evidence regarding the efficacy and safety of monochloramine used for residual disinfection of the public drinking water supply. Based on the best available evidence in the biomedical literature, we conclude that:

- Monochloramine, when used as a public water system disinfectant, will adequately protect the public's health by controlling exposure to waterborne organisms known to cause infectious diseases in humans.
- Drinking water treated with monochloramine is not known to cause significant adverse human health effects.
- Relative to chlorine, monochloramine will result in lower levels of potentially hazardous chemical disinfection by-products, allowing utilities to meet or exceed current regulatory requirements for limiting disinfection by-products.
- Monochloramine appears to be the better available method when compared with chlorine for residual disinfection of public drinking water supplies in which high concentrations of trihalomethanes or haloacetic acids result from chlorination.

CCLHO further recommends that studies to monitor for possible health effects related to the use of monochloramine continue, and that public drinking water utilities be attentive to technical considerations related to water chemistry when initiating and maintaining monochloramine disinfection.

Attached are a bibliography of reviewed materials and a summary of technical considerations related to monochloramine disinfection.

Sincerely,

Scott Morrow, M.D., M.P.H.
President, CCLHO

Attachments: Appendix A
Appendix B

Appendix A

CCLHO position on chloramine disinfection of drinking water

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Appendix B

CCLHO position on chloramine disinfection of drinking water

CCLHO provides the following suggestions and recommendations about what utilities and municipalities should be looking for in order to protect the public health from possible unanticipated consequences of chloramination.

1. Utilities should continue their water quality monitoring for organic and inorganic chemicals, microbiological indicators, corrosivity and other parameters in accordance with regulatory requirements. Results should be compared before and after a change to chloramination to assess the effect of the disinfection process on the water quality parameters. In order to get a good comparison, utilities typically should compare one year of data on free chlorine and one year of data on chloramine after the conversion, to assess any possible seasonal variation and allow for the system to adjust to chloramine. Utilities may also consider evaluating several years of data on chloramine to obtain an estimate of long-term trends for disinfection by-products, microbial indicators and corrosion products. Any deviation from the expected trends should be investigated, explained, and corrected.
2. After a switch to chloramine for residual disinfection, utilities should consider accelerating their compliance monitoring for lead and copper.
3. In addition to fulfilling all current water quality monitoring regulations, utilities should consider monitoring additional water quality parameters if all of the following criteria are met: (a) the water quality parameter has known or suspected adverse human health effects; (b) the presence of the water quality parameter at levels of concern is thought to be likely; and (c) reliable and accurate quantitative testing methods for the water quality parameter are available.
4. Local health departments and utilities should consider coordinating to set up a logging system to track water quality complaints before and after a switch to chloramine, as a method of tracking the nature of complaints and detecting and responding to real public health concerns early.
5. Local health departments should cooperate and communicate directly with utilities to continually review the current knowledge and experiences of other municipalities as well as the current and emerging health research to identify additional disinfection byproducts or other water quality constituents that may be of public health concern in the local water supply and to develop appropriate monitoring and sampling plans.