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Director

State of California—Health and Human Services Agency
California Department of Public Health



ARNOLD SCHWARZENEGGER
Governor

May 5, 2008

Russell Fuller, General Manager
Antelope Valley East Kern Water Agency (AVEK)
6500 West Avenue N
Palmdale, CA 93551



RE: Use of Chloramines as a Drinking Water Disinfectant

Dear Mr. Fuller,

This letter is in response to your recent inquiry to the California Department of Public Health regarding the safety of the use of chloramines as a disinfectant by public water systems. Our Department is responsible for the enforcement of the Federal and State of California Safe Drinking Water Acts. This oversight includes issuance of domestic water supply permits for operation of drinking water treatment facilities. The Division of Drinking Water and Environmental Management is currently reviewing the new chloramination facilities being installed at your AVEK treatment plants. We understand that AVEK will be ready to operate the new facilities in early 2009, and plan to issue a domestic water supply permit for their use before that date.

Chloramines are used nationally by public water systems for disinfection. As part of our permitting requirements, significant monitoring of the treatment facilities is required to ensure that adequate treatment is provided at all times. The primary and secondary disinfection systems that are to be operated at your treatment facilities will result in state of the art disinfection treatment for your system customers.

The use of chloramines has grown in popularity among water systems because their use reduces the health risk associated with disinfection byproducts (DBPs) that result from the use of chlorine alone for disinfection. Chloramines have been used nationally and within California for many years. Among DBPs are chemicals that have been identified as potential carcinogens. The substitution of chlorine by chloramines enables water systems to reduce the potential cancer risk for their customers. Therefore, the conversion of chlorine to chloramines disinfection by AVEK is an important and necessary public health protection measure that will reduce the harmful effects of DBPs.

Although chloramines are not as strong of a disinfectant as free chlorine, the chloramine residuals are more persistent within distribution systems. This is likely the reason

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recent research has confirmed that chloramines provide a better safeguard against Legionella than free chlorine. The Department supports the conversion to chloramine disinfection from free chlorine as an important step to controlling DBPs.

Attached is a letter sent by our Department to the San Francisco Public Utilities Commission on the use of chloramine disinfection about two years ago. The Department's position as stated in this letter is accurate today.

We look forward to continue working with you and your staff to ensure the on-going delivery of a safe water supply to your customers. If you have any questions regarding the information in this letter, please contact me.

Sincerely,



Cindy A. Forbes, Chief
Southern California Field Operations
Division of Drinking Water
and Environmental Management

cc: Richard L. Haberman, Regional Engineer
Jesse Dhaliwal, District Engineer
Kurt Souza, Regional Engineer
Stefan Cajina, District Engineer