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Financial Assistance Available to Change Disinfection Method from Chlorine Gas

The federal Public Health, Security, and Bioterrorism Preparedness and Response Act (Bioterrorism Act) of 2002 includes provisions to help safeguard the nation's public drinking water systems against terrorist and other intentional acts.

In response, state regulatory agencies and water systems are reevaluating facility security measures and making improvements as needed.

Each system should also review the transportation, storage and use of chlorine gas. Destruction of chlorine gas or other chemical containers at treatment plants could result in a release that may be extremely harmful to humans.

With this concern in mind, many water treatment plants have ceased using chlorine gas for disinfection and changed to safer alternatives such as sodium hypochlorite.

Advantages to Using Sodium Hypochlorite

Whether generated on site or shipped in bulk form, sodium hypochlorite (NaOCl) is an excellent alternative to gaseous chlorine disinfection.



It is widely considered the second most affordable disinfectant after bulk liquefied chlorine gas. Commercially available at varying solution strengths ranging from 6 percent to 15 percent solutions, it offers most of the disinfectant and oxidizing benefits of chlorine gas without the associated risks involved with transporting or storing hazardous chemicals.

Assistance Available through Ohio EPA

Converting from chlorine gas to an alternative disinfection method can be costly, especially for small systems.

To assist systems with this effort, Ohio EPA is offering an interest rate discount to systems proposing projects to change their disinfection from gaseous chlorine to a safer, more secure chemical such as sodium hypochlorite.

The change can be funded either as a part of a larger project financed through the Water Supply Revolving Loan Account (WSRLA), or as a separate proposal for WSRLA financing.

The WSRLA loan interest rate will be reduced to a percentage that results in a savings to the applicant equal to the as-bid principal and interest costs of the replacement treatment cost.

How to Apply

Complete and submit a WSRLA pre-application and project description to Ohio EPA. Ohio EPA will review the pre-application to determine if the project qualifies for the program then contact the system to further discuss the project.

Interest Rate Discount Example

For example, a qualifying system with a total project cost of \$1,000,000 at 3.75 percent with \$200,000 principal and interest for the treatment changeover will have a reduced interest rate of approximately 2.1 percent. This results in an interest savings of \$200,000 for the applicant, thereby eliminating the cost of the treatment changeover.

For More Information

A WSRLA fact sheet and a pre-application form is available online at www.epa.ohio.gov/ddagw/dwaf.html.

Ohio EPA and Ohio AWWA have written a white paper discussing issues to consider before converting to hypochlorites. It is available online at www.epa.state.oh.us/ddagw/.

For more information about the WSRLA interest rate discount, please contact Ohio EPA's Division of Drinking and Ground Waters at (614) 644-2752, or one of the district offices listed below:

- Central District Office
(614) 728-3866
- Northeast District Office
(330) 963-1178
- Northwest District Office
(419) 352-8461
- Southeast District Office
(740) 380-5207
- Southwest District Office
(937) 285-6112

