NKWD's Advanced Water Treatment Technologies
Ft. Thomas and Memorial Parkway Treatment Plants

Erlanger, KY – The Northern Kentucky Water District is in the process of implementing advanced water treatment technologies that are needed to comply with new regulations. Construction began in May 2010 on projects that added two new water treatment processes to the Memorial Parkway and Fort Thomas Treatment Plants. These processes, in combination with existing treatment, will enable the District to meet the Environmental Protection Agency's (EPA) new drinking water regulations. These regulations go into effect in 2012 and are unfunded mandates that the District must meet as a water provider. These projects will also help the District be prepared for potential future regulations.

The major components of the advanced treatment projects include granular activated carbon (GAC) adsorption followed by ultraviolent light (UV) treatment. The new GAC adsorption process follows the existing coagulation and filtration processes, and UV provides an additional disinfection barrier to chlorine.

The EPA considers GAC to be one of the best available treatment processes to meet the new regulations. The GAC process involves sending water through deep beds of carbon to remove compounds that are present in the raw water. The compounds removed by the carbon may be present naturally in the Ohio River that later react with chlorine to form minute levels of disinfection by-products. The GAC will also provide extra removal for compounds that may be present due to spills on the river.

The Ultraviolet Light (UV) treatment process will further supplement the current disinfection practices. Using UV followed by chlorine greatly improves the effectiveness of the disinfection process.

Northern Kentucky Water District (NKWD) serves approximately 81,000 customer accounts, or nearly 300,000 people in Campbell and Kenton Counties, portions of Boone, Grant and Pendleton Counties, and the Greater Cincinnati Northern Kentucky International Airport.

Aerial view of new GAC/UV building at the Ft. Thomas Treatment Plant.

Interior view of new GAC building at the Memorial Parkway Treatment Plant.

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