

Memo

To: Linely Bordine-Houseman, Purchasing Agent
From: Richard Beardslee, Wastewater Superintendent
CC: File
Date: 11/3/2015
Re: Bioxide (Calcium Nitrate) Purchase

Historically, the City of Battle Creek has been plagued by sewer odor and corrosion problems in several locations in the city. The Riverside/Columbia Ave. area has been very problematic. The cause of this condition is the design of the sewer in certain locations, and these are not easily resolved because of topography and cost. There have been many attempted remedies over the past two decades, but none with great success except one, Bioxide.

In 1995 we started using a proprietary chemical called Bioxide, which contains primarily Calcium nitrate. This chemical has been patented for use in sewers to reduce corrosion. The use of Bioxide has proven to be very effective in reducing corrosion in our sewer system and this chemical reaction also reduces odors as well.

In 1998, we bid the purchase of Calcium nitrate, or any equivalent alternative. A patent is held on Bioxide by Evoqua Water Technologies, LLC. An alternative sodium nitrate was proposed in the past, but use of that chemical was not proven by research or references, and the use of this product would require the City to buy related storage and pumping equipment to distribute the product, so it was decided to stay with the Bioxide.

Because of the lack of an alternative that is viable, and the extra cost of attempting to use other products, my recommendation is to stay with Bioxide as the preferred odor and corrosion control product. I am asking purchasing to submit this request for commission approval. This purchase is budgeted in the Wastewater Fund 590-24-5550-727.100 Materials & Supplies /Chemicals.