



January 15, 2016

Mayor Paula K. Zelenko
City of Burton
4303 South Center Road
Burton, MI 48519

Dear Mayor Zelenko:

We met in June of 2013 at the Genesee County Drain Commissioners office where I gave a presentation on Ductile Iron Pipe. I am writing to you at the suggestion of Mr. Rick Hayman, your chief of staff, regarding an article in the *Burton View* on November 5, 2015. I was unable to reach anyone in your office late last year and appreciate Mr. Hayman returning my call this past week.

The article makes several claims regarding PVC pipe that are questionable, and we would like your assistance in preparing a response in the *Burton View* to correct these inaccuracies.

The article refers to "... aging and rusty 1930s-era ductile iron watermain infrastructure within the City's Water Tower district..." and makes the claim that PVC pipe is "...safer, more cost-effective and environmentally friendly..." Ductile Iron Pipe was first introduced into the marketplace in the 1950s. The pipe being replaced, after more than 80 years of service, is cast iron with no internal lining nor exterior encasement – and it has served very well, especially considering the technology of the time. Not many products installed in the 1930s are still working 80 years later.

The article states that PVC pipe is "safer" and "environmentally friendly". However, the U.S. Environmental Protection Agency (USEPA) has described the carcinogens produced in the making of the PVC resin, which include dioxin and the vinyl chloride monomer, and there are regulatory controls of those toxins in the factories that manufacture PVC¹. Based on this, it is clear that PVC is neither safer nor environmentally friendly.

Also, the article states, "...the quality of the water delivered to the residents is healthier than water carried by ductile iron." There is no justification for this statement. In fact, the opposite is true. As an example, the USEPA also notes on their website⁽²⁾ that "(t)he major sources of vinyl chloride in drinking water are leaching from polyvinyl chloride (PVC) piping; and discharge from plastics factories."

The USEPA currently has a maximum contaminant level goal (MCLG) for vinyl chloride in drinking water of 0 mg/l⁽²⁾. This indicates a serious health concern and raises questions regarding the accuracy of the claims that PVC pipe is "safer", "healthier" or a "green" product. Is your community prepared to take this risk?

The article also states that it “requires less energy” to operate a PVC pipeline when, in fact, PVC pipe usually requires more pumping energy than Ductile Iron Pipe due to the smaller inside diameter of PVC pipe. The PVC pipe industry touts its “smooth” inner surface when, in fact, modern pipe materials today have very similar “smoothness”...and the energy costs are more impacted by the actual inside diameter of the pipe. For PVC pipe, that inside diameter is typically smaller than that of Ductile Iron Pipe, resulting in higher, not lower, energy costs.

Another debatable claim is that PVC pipe can have a “...conservative life expectancy of at least 100 years.” There are iron pipes in service today that have served for as many as 350 years, whereas no PVC pipe has served as long as the cast iron pipe in Burton that is scheduled to be replaced!

Fire protection will be improved by any modern pipe used to replace the existing mains, but fire departments have practical environmental concerns about the use of PVC pipe. The International Firefighters Association has gone on record in opposition to the use of PVC for pipe and has raised concerns about the toxins that are released when PVC products are burned by fire⁽³⁾.

For these and other reasons, we don't believe that PVC will have a “**positive impact...on the environment and the residents of the City of Burton**”. We believe it is more likely to have the opposite effect.

Although DIPRA does not deal with cost issues directly, we believe that properly engineered Ductile Iron Pipe, taking life cycle cost factors into account, would have been very competitive in this project and would save money over the long term.

We would like to work with you to develop the appropriate response to this article to properly inform the citizens of Burton regarding this issue. I look forward to working with you on this issue.

Sincerely,



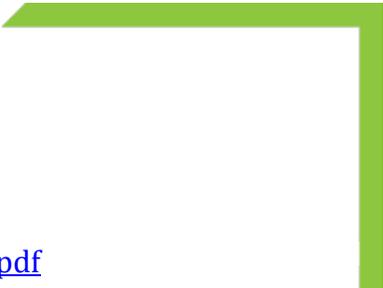
Paul H. Hanson, P.E.

Regional Director

Ductile Iron Pipe Research Association

1. USEPA news release 02/14/2012 -

<http://yosemite.epa.gov/opa/admpress.nsf/cc70aa01e9532f3b852578d800648c5c/7dc7e89d5b4a7e3f852579a400581721!opendocument>



2. <https://safewater.zendesk.com/hc/en-us/sections/202346147>

3. International Firefighters Association:

<http://www.iaff.org/HS/SubstanceExposures/PDF/DioxinFactSheet.pdf>

