



May 5, 2018

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MDEQ - JACKSON

Mr. Zack Durham
Environmental Quality Analyst
Air Quality Division
301 East Louis Glick Highway
Jackson MI 49201-1556

JUN 04 2018

AIR QUALITY DIVISION

RE: Violation Notice April 11, 2018
SRN N1119, Washtenaw County

Dear Mr. Durham

This letter is in response to the above violation notice. It has been found that Alpha Metal Finishing was not in compliance to Air Pollution Control Rules with use of hydrochloric acid.

The use of this chemical within the facility of Alpha Metal Finishing does not violate the current air permit. The use and purpose of this acid is for the regeneration of the Deionized Water System. Within this process the chemical is transferred from the original enclosed container to a second enclosed container; the DI resin bed. The process allows for the transfer without the chemical making contact into the air.

Rule 290 of the Michigan Air Pollution Control Rules exempts an emission unit with limited emissions from having to apply for Permit to Install.

Rule 284(2)(h)(iv) Exempts Hydrochloric acid that is no than more than 11% by weight

Alpha uses 30 gallons of 22 deg Baume (35.21% by weight) Hydrochloric acid for each regeneration. We regenerate approximately every two weeks. It is drawn into the resin bed with a jet pump which uses 5 gpm water over 60 minutes.

$35.21 \% \text{ HCL} \times 30 \text{ gal HCL} = 3.521 \% \text{ Concentration entering the DI system}$
 $5 \text{ gal H}_2\text{O} / \text{min} \times 60 \text{ min}$

The majority of the HCL is consumed in neutralizing the OH ions in the cation bed so the actual amount discharged into the waste treatment system is considerably less.
A schematic of Alpha's DI system is attached.

We keep records of all our chemical purchases and usage including HCL in an excel spread sheet which includes the same data called for in Rule 290.

Sincerely

Robert E. Wood, PE, President

