

## **Robinson, Christopher (DEQ)**

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**From:** Robinson, Christopher (DEQ)  
**Sent:** Tuesday, February 21, 2017 1:19 PM  
**To:** 'Metal Finishing Technology'  
**Subject:** RE: Recordkeeping

Joe,

I'll be more than happy to review the spreadsheet once completed. The 290 Determination discussion you worked with Jenifer on and provided to me, adequately addresses the record keeping issues identified in your violation letter for both the anodizing and black oxide tanks. Therefore, I'm going to consider these emails and your 290 determination as an adequate response to your violation letter.

Please remember to update the calculations as necessary and have them readily available in the future.

It was a pleasure working with you and if you ever have any questions, please feel free to contact me.

Thank you,

Chris Robinson  
Environmental Quality Analyst  
MDEQ, Air Quality Division  
Grand Rapids District Office  
616-356-0259

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**From:** Metal Finishing Technology [mailto:mft2652@yahoo.com]  
**Sent:** Tuesday, February 21, 2017 9:26 AM  
**To:** Dixon, Jenifer (DEQ); Robinson, Christopher (DEQ)  
**Subject:** Re: Recordkeeping

Jen-

Sounds great. Thank you for your input. I will get something drawn up in the next couple days and send it over. Thank you both for your continued assistance regarding this matter.

Joe

## **METAL FINISHING TECHNOLOGY**

Black Oxide, Nitric Passivation and Sulfuric Type II and III Anodizing (Clear, Black, Red, Gold, Green, Turquoise and Blue)

Phone -231-733-9736  
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***"Every company's greatest assets are its customers, because without customers there is no company." Michael LeBoeuf***

On Tuesday, January 3, 2017 11:43 AM, Metal Finishing Technology <[mft2652@yahoo.com](mailto:mft2652@yahoo.com)> wrote:

Good Morning Chris. Hope all is well.

I am just getting back into the swing of things and I noticed the violation letter you sent us. I am responding to you because I have a couple questions...

First, I was hoping to get an extension for our written response to the violation. Secondly, I was wondering if you are able to come back to our facility to have a meeting with David Bernd (owner) and I regarding going over the findings from 11-17-16 and explanation of options going forward. During our previous meeting, you mentioned that your office last visited MFT back in 2006 or 2007 (I don't remember exactly). Since I was not an employee of Metal Finishing Technology at that time, I was wondering if you had any documentation of that last visit.

Thank you for your time, and I look forward to talking with you in the near future.

Joe Wingett

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\*\*\* We will be closed on Thursday, November 24th and on Friday, November 25th. We will also be

closed from Friday, December 23rd through Monday, December 26th, and reopen on Tuesday, December 27th. We will be closed on Monday, January 2nd 2017.  
Thank you for your continued business.\*\*\*

On Thursday, December 15, 2016 11:14 AM, "Robinson, Christopher (DEQ)" <[RobinsonC17@michigan.gov](mailto:RobinsonC17@michigan.gov)> wrote:

Mr. Joe Wingett,

On November 17, 2016, staff of the Department of Environmental Quality (DEQ), Air Quality Division (AQD), conducted an inspection of Metal Finishing Technology located at 2652 Hoyt Street, Muskegon, MI. The purpose of this inspection was to evaluate compliance with state and federal air quality rules and regulations.

A copy of the inspection report is attached. Please feel free to contact me if you have any questions. The report will be posted on the AQD website at [AQD Source Information](#).

Please let us know how we can improve the inspection process by completing our online customer service survey at [AQD Inspection Survey](#).

Thank you for the cooperation that was extended to me during the inspection.

Regards,

Chris Robinson  
Environmental Quality Analyst  
MDEQ, Air Quality Division  
Grand Rapids District Office  
616-356-0259

Attachment

Metal Finishing Technology - Rule 290 Determination Discussion  
February 13, 2017

Typically, over 90% of the tank baths end up as part of the waste stream that is shipped off site but this amount was not taken into account as part of a mass balance emission estimation.

**Sulfuric Acid Anodizing Lines (Anodize 1, 2 and 3)\***

Sulfuric Acid 66°

Sulfuric Acid

Annual Usage: 4,500 pounds per year

Concentration of sulfuric acid as purchased: 93.1%

$4,500 * 0.931 = 4,189.5$  lbs per year available to be emitted

$4,189.5 * (1 - 0.99) = 41.895$  lbs/year emitted (~42 lbs)

$42 \text{ lbs/year} * 1 \text{ year}/8760 \text{ hrs} = 0.005 \text{ lb/hr}$

The ITSL that applies to this chemical is  $1.0 \text{ microgram/m}^3$ , therefore the emissions are limited to 20 pounds per month uncontrolled. Even at maximum operating hours of 744/month, the emission unit would conservatively emit 3.72 pounds/month. If the company tracks the operating hours on a daily and monthly basis, this should be sufficient to comply with Rule 290(2)(d).

**Black Oxide Line (Using Havablack S2G)\***

Based on information from Metal Finishing Technology Havablack S2G contains three acids and one proprietary ingredient (up to 10%). Maximum concentration of each acid is used below to ensure that conservative estimate still meets rule requirements.

Havablack S2G – Mass Balance

Sodium Hydroxide

Annual Usage: 18,000 pounds per year

Concentration of acid as purchased: 80%

$18,000 * 0.8 = 14,400$  lbs per year available to be emitted

$14,400 * (1 - 0.99) = 144$  lbs/year emitted

$144 \text{ lbs/year} * 1 \text{ year}/8760 \text{ hrs} = 0.016 \text{ lb/hr}$

Less than 12 pounds/month maximum

Sodium Nitrate

Annual Usage: 18,000 pounds per year

Concentration of acid as purchased: 20%

$18,000 * 0.2 = 3,600$  lbs per year available to be emitted

$3,600 * (1 - 0.99) = 36$  lbs/year emitted

$36 \text{ lbs/year} * 1 \text{ year}/8760 \text{ hrs} = 0.004 \text{ lb/hr}$

Less than 3.0 pounds/month maximum

Sodium Chloride

Annual Usage: 18,000 pounds per year

Concentration of acid as purchased: 5%

$18,000 * 0.05 = 900$  lbs per year available to be emitted

$900 * (1 - 0.99) = 9$  lbs/year emitted

$9 \text{ lbs/year} * 1 \text{ year}/8760 \text{ hrs} = 0.001 \text{ lb/hr}$

Less than 1.0 lbs/month maximum

The ITSL that applies to Sodium Hydroxide is 20.0 microgram/m<sup>3</sup>, therefore the emissions are limited to 1,000 pounds per month uncontrolled. The other two constituents are not listed and are not carcinogens. Based on practical knowledge, they would likely be assigned 1,000 pounds per month as well. Thinking conservatively, we will assume they are both 20 pounds per month.

Even at maximum operating hours of 744/month, the emission unit would conservatively emit 16 pounds/month. If the company tracks the operating hours on a daily and monthly basis, this should be sufficient to comply with Rule 290(2)(d).

\* Emissions are derived from calculations contained in the Eval Form of Permit to Install 21-11.