



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

February 2, 2010

RE: **COMMERCIAL ANODIZING
OHD 004 209 409**

Mark Swetel
Commercial Anodizing
38387 Apollo Parkway
Willoughby, OH 44094

Dear Mr. Swetel:

On December 2, 2009, the Ohio EPA Division of Hazardous Waste Management conducted an inspection of Commercial Anodizing located at 38387 Apollo Parkway, Willoughby, Ohio. One purpose of this was to determine if Commercial Anodizing was in compliance with Ohio's hazardous waste and used oil laws as found in Chapter 3734 of the Ohio Revised Code (ORC) and Chapter 3745 of the Ohio Administrative Code (OAC). Please see the enclosed Process and Waste Summary chart for my understanding of this facility's operations.

Commercial Anodizing has various process lines which are listed on the enclosed Process and Waste Summary chart. The wastewaters from these lines are mixed together and treated in an on-site wastewater treatment system. A filter cake waste is generated from this treatment. In 2004 you shipped this waste as a F006 hazardous waste. I have talked with our Regulatory Services Unit and they agree that this waste is a F006 listed hazardous waste. The reason for this is that filter cake generated from the treatment of wastewater from your Type 1 anodizing (anodizing on aluminum using chromic acid) meets the F006 listing description. Please review the Process and Waste Summary carefully because if wastewaters from non-electroplating processes are mixed with and treated together, then the resulting filter cake may not be a F006 hazardous waste.

You told me that you have shipped this waste filter cake since your March 9, 2004 shipment but have not yet been able to find the paper work for those shipments. There are three types of hazardous waste generators based mainly on the weight of hazardous waste generated in a calendar month. These are from 0 to 220 pounds, 220 pounds to 2,200 pounds, and over 2,200 pounds. Each type has certain rules specific to just that type. I need more information from you before I can determine which type Commercial Anodizing is now and has been in the recent past. **Specifically, I need shipping papers for all shipments of waste filter cake since the March 9, 2004 shipment. Any records of the amount of this filter cake waste generated over time and/or the weight of this waste you currently have onsite would also be useful. Please respond with this information as soon as possible.**

Your drum of hazardous waste acetone was open. This can cause evaporation of this waste and potential employee exposure. You closed the drum during the inspection.

An open drum of such waste that can evaporate could be considered illegal disposal of the waste to the air. In addition, if you generate over 220 pounds of hazardous waste in a calendar month, then you would be subject to the rule that requires containers of hazardous waste to be closed except when adding or removing waste. Please respond to me describing how you will ensure that these waste drums are kept closed.

The following violations were found:

1. OAC rule 3745-52-11 – Hazardous waste determination.
This rule requires that any person who generates a waste must determine if that waste is a hazardous waste. The following documents which were given to you during the inspection give more information regarding this:

Identifying Your Hazardous Waste, 2006

<http://www.epa.ohio.gov/portals/41/sb/publications/identifyingwaste.pdf>

OAC 3745-51-21 to 24 characteristic hazardous waste

OAC 3745-51-31 listed hazardous waste

http://www.epa.ohio.gov/dhwm/laws_regs.aspx

Commercial Anodizing violated this rule by not determining whether two containers of waste stored outside contain hazardous waste. These were the blue plastic drum and the square, metal tank stored by the back fence. You told me that these had been left by a former tenant. **Please send me your determination as to whether these contain hazardous waste. Please also describe what you plan to do with these wastes.**

Commercial Anodizing also violated this rule by not determining whether a drum stored on a pallet outside contained hazardous waste. You told me that this drum belonged to a former neighbor called Formica Plumbing. They told me that it is not their drum. **Please either send me your determination as to whether this waste is a hazardous waste or documentation that the drum is not yours and/or is not on your property. Please also describe what you plan to do with these wastes.** There was contamination on the ground that appeared to have come from this drum. Once it has been determined whether this waste is a hazardous waste, then I can give you the requirements specific to the cleanup needed here. If the drum contains used oil, then the requirement is to remove any visually contaminated soil or gravel.

A written response to the above issues is required within 30 days.

Another purpose of the inspection was to look for ways you may be able to reduce your waste generation, conserve energy, and save money.

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If the wastewater from the Type 1 anodizing was treated separately from the wastewaters from your other lines, then the filter cake generated from the other lines would not be a F006 hazardous waste.

There may be a way to mask the parts and remove the masking that is cheaper and/or generates less hazardous waste than the current process using acetone. The following document regarding acetone is enclosed and can be found at:

Acetone Regulations and Pollution Prevention, 1998
<http://www.epa.ohio.gov/portals/41/p2/fact34.pdf>

For the waste acetone that is generated, it may be cost effective to distill and reuse the solvent onsite. Information regarding on-site solvent recycling equipment is enclosed and can be found at:

On-Site Solvent Recycling Equipment, 2005
<http://www.epa.ohio.gov/portals/41/p2/fact9.pdf>
Selecting a Still for On-site Solvent Recycling, 2005
<http://mntap.umn.edu/mach/62-Still.pdf>
A solvent distillation cost calculator can be found at:
<http://www.iwrc.org/SBPPC/costCalcs/solvent.cfm>
This site also contains a searchable vendor database.

We saw that an employee was drying parts off using compressed air. This may be a very expensive way to dry the parts. A worksheet to assist you in identifying compressed air savings is enclosed: The Visible Cost of Air, 2007
<http://www.wmrc.uiuc.edu/main%5Fsections/info%5Fservices/library%5Fdocs/TN/tn07-087.pdf>.

For more information you can go to the Compressed Air Challenge website at <http://www.compressedairchallenge.org/>, and the US Department of Energy website at http://www1.eere.energy.gov/industry/bestpractices/compressed_air.html.

We saw that the heated tanks are heated by natural gas burners underneath the tanks. You said that replacing this with heat exchange coils would be a very large expense but also a large efficiency boost. The US Department of Energy's Industrial Technologies Program offers information and software tools regarding process heating at this website: http://www1.eere.energy.gov/industry/bestpractices/process_heat.html.

This information may help you decide whether a change like this or less costly changes would be beneficial to your business. I have enclosed the following document regarding this in relation to natural gas use:

Reduce Natural Gas Use in Your Industrial Process Heating Systems, 2007
<http://www1.eere.energy.gov/industry/bestpractices/pdfs/41433.pdf>

In the type 2 anodizing area we saw a gap between two of the tanks that had allowed drips of the solution and a resulting buildup of waste to get in between the tanks. You agreed that a cover over this gap would be a good idea. This cover can be angled to allow the drips to drain back into the more appropriate of the two tanks.

Some of your part racks are manually taken out of the tanks. We saw that these can drip onto the floor while being transferred to another tank. If the parts can stand some additional drying out then they can be allowed to drip longer over the tanks they just came out of. This will reduce your need to add chemicals to that bath. A hang bar could be installed which would allow the operator to hang the rack over the tank while it drips. This will save the operator's back and potentially increase the allowed drip time.

We saw that one of the tanks in the black oxide line had steam coming off of it. It may be helpful to do spray rinsing above this tank to replace some of the water that evaporates. In addition or as an alternative to that, a cover may be useful to minimize this evaporation.

Some references regarding pollution prevention in the metal finishing industry can be found at:

Approaching Zero Discharge in Surface Finishing, 2000 (49 pages)

http://www.pfonline.com/mag_images/625R99008AZD.pdf

Source Reduction and Metal Recovery Techniques for Metal Finishers, 2004

<http://www.epa.ohio.gov/portals/41/fact24.pdf>

Metal Finisher's Guide to Reducing Energy Costs, 2000

<http://www.ecw.org/prod/319-1.pdf>

Metal Finisher's Technical Supplement, 2000

<http://www.ecw.org/prod/319-2.pdf>

Other information and suggestions:

- Ohio EPA's Office of Compliance Assistance and Pollution Prevention (OCAPP) provides compliance and pollution prevention assistance on environmental issues (including sources of funding) related to air, land, and water. They can be contacted at (800) 329-7518, or <http://www.epa.ohio.gov/ocapp>.
- Entrepreneurs for Sustainability is a group that seeks to "build a sustainable regional economy in Northeast Ohio that will create prosperity and total community health." They offer workshops, conferences, a business to business directory and more. Their website is at <http://www.e4s.org/content/index.asp>.
- ENERGY STAR is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency. Their website is at: <http://www.energystar.gov/>.

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- The Clean Air Resource Center offers help in understanding EPA air quality requirements. In addition, if your business is required to purchase new equipment, they can offer better-cost financing with special tax incentives. Their phone number is (800) 225-5051 and website is <http://www.ohioairquality.org/>.
- The Division of Hazardous Waste Management has created an electronic news service to provide you with updates related to hazardous waste activities in Ohio. You can find more information and sign up at: http://ohioepa.custhelp.com/cgi-bin/ohioepa.cfg/php/enduser/doc_serve.php?2=subscriptionpage.

You can find copies of the regulations and other information on the Division of Hazardous Waste Management web page at <http://epa.ohio.gov/dhwm>.

If you have any questions, please contact me at (330) 963-1217, or robert.almquist@epa.state.oh.us.

Sincerely,



Robert Almquist
Division of Hazardous Waste Management

RA:
Enclosures

cc: Marlene Kinney, DHWM, NEDO
ec: Frank Popotnik, DHWM, NEDO
Harry Sarvis, DHWM, CO
Natalie Oryshkewych, DHWM, NEDO
Suzanne Prusnek, DHWM, NEDO

Notice:

Ohio EPA's failure to list specific deficiencies or violations in this letter does not relieve your facility from its obligation to comply with all applicable regulations.