



Environmental
Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

RTC'd Violation

June 7, 2012

Ms. Sharon Christ
Pediatric Dentistry South
3924 Marshall Road
Kettering, Ohio 45429

RE: RTC PEDIATRIC DENTISTRY SOUTH

Dear Ms. Christ:

The purpose of this letter is to document the actions you have taken in response to my February 7 Notice of Violation (NOV) letter.

You have been accumulating lead foil in a cardboard box. Jim Cretcher has already sold a small box of lead foil scraps to a local scrap metal yard. Since you have implemented a digital dental x-ray system, you will no longer generate foil scraps used to package x-ray film. I should remind you that lead aprons and other lead shielding may also be sold at local scrap yards.

You have been accumulating amalgam scraps, including scraps sorted out of the vacuum system, under water in a closed container. You have obtained an "Amalgon®" disposal system. This includes a container for mailing the recovered amalgam to a mercury recycling facility.

As a conditionally exempt small quantity generator, you do not have a time limit for how long you accumulate lead foil or amalgam scraps. However, I suggest recycling these materials on a regular schedule and not to accumulate any more than is necessary.

In my letter I suggested two options for handling your photographic fixer: (1) Obtain a device to recover the silver from the fixer prior to discharge to the sewer, or (2) Obtain a filter cartridge which chemically combines the silver rendering the fixer non-hazardous. Both options allow the silver metal to be recovered and recycled. You obtained an electrochemical silver recovery unit but it was not sized properly for your baths and you never used it. Instead, you have been using a "Chemgon®" system. Spent fixer is poured into the Chemgon® container which is pre-loaded with additives that bind the silver chemically and solidification agents which turn the solution into a thick gel. The manufacturer has performed testing which establishes that the silver becomes environmentally immobile so that it is no longer regulated as a hazardous waste. The entire Chemgon® container may be landfilled with your solid waste.

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However, Ohio's hazardous waste rules require that CESQGs who treat hazardous waste to follow the rules applicable to large quantity generators (LQGs). By choosing to treat and dispose of the silver fixer rather than recycle it, Pediatric Dentistry also caused itself to be subjected to the LQG requirements. These requirements include preparing and following a contingency plan, requirements to perform new employee training, annual updates to employee training, inspections of hazardous waste being accumulated, record-keeping requirements, etc. We were both concerned that by the time you were able to develop and implement a hazardous waste program that was in compliance with the LQG standards, the deployment of your anticipated digital x-ray system would eliminate the silver fixer developing waste and make your compliance with the LQG standards moot.

I reinspected your office on March 13 and I informed you of the LQG requirements on March 27. Since that time, we have exchanged emails and phone calls discussing the actions you implemented to meet the substantive requirements followed by LQGs. You have held informal training sessions with staff to go over safe handling spill cleanup techniques. I also should note for the record that you have not sewered your photographic fixer since my original inspection on January 23, 2012. Also, since that date, all the lead foil scraps and mercury amalgam have been collected and either been recycled or is still being accumulated before recycling.

On June 5, you informed me that your new x-ray system was operational in the same physical location as your previous photographic developer lab. You last developed a batch of x-rays on May 29 and your wet photographic process has been physically removed.

Based on our emails, my inspection, and our phone calls, I have determined that the steps you have taken are adequate to abate the violation of OAC 3745-52-11.

Thank you for your cooperation and all your hard work. Please contact me at (937) 285-6090 if you have any questions or if I can assist you in any way.

Sincerely,



Tom Ontko
Hazardous Waste Inspector
Southwest District Office

Enclosure

cc: DHWM Data Entry
Dorothy Sorrell, Montgomery County Department of Environmental Services

NOTICE:

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

TO\bp

August 2006

Environmental Regulations and Dental Offices

It's important for you to be aware of the Ohio EPA regulations that apply to your dental office. Dental offices are subject to regulation because they generate infectious and hazardous wastes. Wastewater discharges from dental offices are also regulated.

Is your office in compliance? Ohio EPA's Office of Compliance Assistance and Pollution Prevention (OCAPP) has developed this compliance screening checklist to help you do a quick check on your compliance. This will help you identify areas where you may have compliance issues or opportunities to make other improvements.

If your answer corresponds to a YES or NO that is in **BOLD**, you may have a violation and need to take steps to get into compliance. A short description following each question will help identify action items for you to correct problems. The resource section at the end of the checklist provides additional information to help you with your compliance requirements.

IMPORTANT:

This checklist highlights some of the major environmental requirements that might apply to a small dental office. It does not cover every requirement, and should not be used as your only source of information on environmental regulations. The checklist and additional resources referenced in this publication are intended to be a starting point for you, to identify regulations that may apply to you and areas where you can improve compliance.

Compliance Screening Checklist

If the answer you select is in **BOLD**, you have a compliance issue or have identified an area where additional steps can help improve your operations. When answering questions, make sure you know exactly how wastes are being managed. Do not assume anything. The more accurate you are in your responses, the more helpful this tool is in identifying problem areas.

AMALGAM AND OTHER MERCURY

1. Do you have chair-side traps, vacuum screens or separators to capture amalgam? YES **NO**

Due to its mercury content, amalgam should be captured and separated out from sink water. We recommend you equip your office with chair-side traps, vacuum screens and/or amalgam separators.

2. If you are collecting amalgam, do you put it in with your infectious waste or into your trash? **YES** NO N/A

Because of its mercury content, waste amalgam is a hazardous waste. You cannot put hazardous waste in with infectious waste or in your regular trash. Hazardous wastes must be sent to a recycler or to a permitted hazardous waste disposal facility. See resource section for links to mercury recyclers and hazardous waste disposal facilities.



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3. Do you have any other mercury in your office? (for example, mercury-containing equipment or elemental mercury) **YES** NO

Consider removing all mercury from your office. Spills can happen when equipment malfunctions or breaks, leading to a dangerous situation and expensive clean up. Replace equipment and instruments with non-mercury equipment.

Ohio has a statewide mercury collection and reclamation program for medical equipment and other sources of elemental mercury. See resource section for more information about this program. Collection services are free for dental facilities through this program.

DISCHARGES TO YOUR MUNICIPAL WASTEWATER TREATMENT PLANT

4. Are you discharging wastewater from your dental office to your local wastewater treatment plant? YES NO

Local wastewater treatment plants are also referred to as Publicly Owned Treatment Systems, or POTWs.

5. If you answered Yes to question 4, have you notified the POTW that you are operating a dental practice? YES **NO** N/A

Make sure you've contacted the POTW to get permission to discharge your wastes to them. You will need to provide your office location and information on the wastes going down your sinks and drains. Make sure you are complying with all the POTW's discharge requirements. Most POTWs have limits on what businesses can discharge. Many even have mercury limits, so it's important they know who is discharging to them. Ohio EPA has a list of POTWs with approved pretreatment programs. See resource section. If your area is not on the list, call your local utilities department to get contact information for your POTW.

6. Do you dispose of any chemicals down the drain, such as photo and x-ray chemicals, sterilants or disinfectants? **YES** NO N/A

POTWs are designed to handle sanitary (restroom) wastes and not chemical wastes. Many POTWs do not want chemicals put down the drain, because they can kill helpful bacteria at the plant or cause other hazards, such as an explosion or fire hazard. Make sure you have informed your POTW about the chemicals that are going down your drain to see if this practice is acceptable. Periodically check in with your POTW to ensure that their procedures or policies on what you can discharge have not changed.

If you are not authorized to dispose of these chemicals down the drain, you need to evaluate and properly dispose of them. If they are hazardous wastes, you need to send them to a recycler or permitted hazardous waste disposal facility.

7. Do you rinse amalgam from cleaning chair-side traps, vacuum screens or an amalgam separator down the drain? **YES** NO N/A

Discontinue this practice. Amalgam containing mercury is a hazardous waste. Remove collected amalgam from traps, screens and separators and make sure it is properly managed as a hazardous waste.

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DISCHARGES TO AN ON-SITE SEWAGE TREATMENT OR DISPOSAL SYSTEM
(FOR EXAMPLE, SEPTIC TANK/LEACH FIELD, FILTRATION SYSTEM, MOUND SYSTEM)

8. Do you have an on-site sewage treatment or disposal system such as a septic tank/leach field, filtration system or mound system? **YES** NO

These systems must have a permit-to-install (PTI) from Ohio EPA's Division of Surface Water.

9. Does wastewater from chair-side sinks or rinse water from cleaning equipment go to your on-site system? **YES** NO N/A

Only sanitary (from restrooms and hand wash only sinks) can be discharged to your on-site system. Waste water from chair-side sinks and equipment rinse water that comes into contact with amalgam cannot go into an on-site system.

10. Do you dispose of chemicals such as photo and x-ray chemicals, sterilants or disinfectants down the drain to your on-site system? **YES** NO N/A

Many of these waste chemicals may be classified as hazardous waste or industrial wastewater and cannot go into your on-site system.

11. Do you rinse amalgam from cleaning chair-side traps, vacuum screens or an amalgam separator down the drain to an on-site system? **YES** NO N/A

Discontinue this practice. Amalgam containing mercury is a hazardous waste. Collect amalgam and make sure it is properly managed as a hazardous waste.

Bottom line: Only water from your bathrooms and sinks where only hand washing is done can go to an on-site sewage treatment or disposal system.

If you have wastewater containing amalgam or chemicals going into your on-site system, you must discontinue this practice. You must find another way to manage your wastewater, such as installing a holding tank. A holding tank requires a permit-to-install (PTI) from Ohio EPA's Division of Surface Water. If you have chemicals or amalgam in your wastewater, your tank may also be regulated as a hazardous waste tank by Ohio EPA's Division of Hazardous Waste Management.

If you want to install a holding tank, keep amalgam and waste chemicals out of the tank and stored in separate containers. When you are ready to discard amalgam and chemicals, you must evaluate these and properly manage any hazardous wastes, including shipping them to a permitted hazardous waste disposal facility. You'll need to contact a hauler to empty your holding tank. The wastewater must be evaluated and delivered to a commercial wastewater treatment facility or, if hazardous waste, a hazardous waste disposal facility.

Contact your local district office, Division of Surface Water and Division of Hazardous Waste Management to discuss your options and requirements for installing a holding tank.

Environmental Regulations and Dental Offices

INFECTIOUS WASTE

Small infectious waste generator: A generator who produces less than 50 pounds of infectious waste in any month;

Large infectious waste generator: A generator who produces 50 pounds or more of infectious waste in any month.

If you are a small infectious waste generator:

12. Do you keep records of the infectious waste you generate? YES **NO** N/A

Small generators need to keep a written log which shows the amount (weight) of infectious waste generated each month. You aren't required to send this information to Ohio EPA, but do need to keep it on file at the business.

13. Do you put infectious waste sharps in an appropriate container? YES **NO** N/A

Small generators need to put discarded needles, syringes, scalpel blades and other sharps in a *sharps container*. The container must be in good condition, labeled, puncture and leak resistant with a tight fitting cover. It also needs to be rigid and strong enough to withstand handling during transport (for example, it won't collapse or break open).

14. Are your sharps containers properly labeled? YES **NO** N/A

Your sharps containers must be labeled with the word "sharps" and the international bio hazard symbol. Once you fill a container, you can put it in the dumpster along with your other solid waste for pickup by your solid waste hauler. This disposal option is for small generators only.

If you are a large infectious waste generator:

If you generate fifty pounds or more of infectious waste in a month, you must register with Ohio EPA as a large infectious waste generator. Large generators cannot put untreated infectious waste in their dumpster. They must ensure that the waste is properly treated either on-site, or shipped off-site to a licensed infectious waste treatment facility. Once rendered non-infectious through treatment, wastes can be disposed of at a licensed solid waste disposal facility. Additional requirements for large generators include using a registered transporter, completing shipping papers, developing spill containment/clean up procedures and recording spills in a log.

HAZARDOUS WASTES

15. Have you evaluated all the waste streams from your dental office to determine whether any are classified as hazardous waste under Ohio EPA's regulations? YES **NO**

Please note, this means everything you throw away.

Hazardous waste from dental offices may include:

- amalgam containing mercury
- used fixer and developer
- cleaners for x-ray developer
- lead foil, shields, aprons
- used chemical sterilants
- fluorescent bulbs and batteries

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16. If you are generating hazardous waste, do you know your generator category and whether you are in compliance with the specific requirements for that category? YES **NO** N/A

17. Are all your hazardous wastes being sent to a recycling facility or permitted hazardous waste disposal facility? YES **NO** N/A

Hazardous waste generators must send their waste to a recycling facility, or permitted hazardous waste treatment, storage or disposal (TSD) facility. See resource section for links to recyclers and hazardous waste disposal facilities.

18. Do you put used fluorescent tubes and/or batteries in the trash? **YES** NO

Fluorescent lamps and batteries are likely hazardous wastes because of mercury and lead. Ohio EPA recommends recycling lamps and batteries under the universal waste regulations. If not recycled under the universal waste rules, they must be evaluated and, if hazardous, properly disposed of at a permitted hazardous waste disposal facility. See resource section for more information on fluorescent lamp and battery recyclers.

19. Do you put any chemicals in the trash, such as old photo or x-ray chemicals, formacresol or methacrylate? **YES** NO

Old photo/x-ray chemicals are likely hazardous wastes because of the silver they contain. Formacresol and methacrylate are likely hazardous because of ignitability. You must evaluate these and, if hazardous, recycle or dispose of these as hazardous waste.

20. Do you put x-ray shields, foils or aprons in the trash? **YES** NO

These materials are likely hazardous waste because of their lead content. You must recycle or dispose of them as hazardous waste.

21. Do you put vacuum filters in the trash? **YES** NO

These filters may have enough mercury from amalgam to make them hazardous waste. You must evaluate filters and, if hazardous, recycle or dispose of these as hazardous waste.

22. Do you put electronics such as computers in the trash? **YES** NO

Old electronic equipment may be hazardous waste because of heavy metals in components (lead, cadmium, chrome, for example). Recycling electronic equipment is a better option. See resource section for more information on electronic recyclers.

Bottom line: You are responsible for evaluating all the wastes you generate to determine whether they are hazardous wastes and for ensuring proper disposal of these. **DO NOT** throw any waste into the trash if you have not evaluated it and confirmed that it is non-hazardous. See resource section for more information on how to evaluate your wastes and for recycling and disposal options. Even if non-hazardous, you can't put liquids in your solid waste dumpster for disposal, as landfills aren't permitted to accept liquid wastes.

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ADDITIONAL RESOURCES

Guidance Document for Small Generators of Infectious Waste (Ohio EPA)

(For generators of less than 50 pounds of infectious waste in a month)

www.epa.state.oh.us/dsiwm/document/guidance/gd_075.pdf

Guidance Document for Large Generators of Infectious Waste (Ohio EPA)

(For generators of 50 pounds or more of infectious waste in a month)

www.epa.state.oh.us/dsiwm/document/guidance/gd_078.pdf

Identifying Your Hazardous Waste (Ohio EPA)

www.epa.state.oh.us/ocapp/sb/publications/identifyingwaste.pdf

List of Commercial Facilities Accepting Hazardous Waste (Ohio EPA)

www.epa.state.oh.us/dhwm/pdf/accepting.pdf

List of POTWs with Approved Pretreatment Programs (Ohio EPA)

www.epa.state.oh.us/dsw/pretreatment/approve_program_listing11.html

The Ohio Dental Association

Waste Recycling and Disposal Resources

www.oda.org/upload/wasterecyclers.pdf

List of Computer, Fluorescent Lamp and Ballast Recyclers (Ohio EPA)

www.epa.state.oh.us/dhwm/pdf/comp.lamp.ballast.list.pdf

List of Battery Recyclers (Ohio EPA)

www.epa.state.oh.us/ocapp/p2/recyc/battery.html

Bowling Green State University

Ohio's Elemental Mercury Collection and Reclamation Program

www.bgsu.edu/offices/envhs/environmental_health/mercury/program.htm

Ohio EPA, Division of Surface Water

Permit-to-Install Web Site for Holding Tanks

www.epa.state.oh.us/dsw/pti/HoldingTanks.html

Ohio EPA, Division of Solid and Infectious Waste Management, Infectious Waste Program

www.epa.state.oh.us/dsiwm/pages/iwpro.html

Ohio EPA, Office of Compliance Assistance and Pollution Prevention (OCAPP)

www.epa.state.oh.us/ocapp/ocapp.html

American Dental Association

Best Management Practices for Amalgam Waste

www.ada.org/prof/resources/topics/amalgam_bmp.asp

NEED MORE HELP?

If you do identify areas where you need to take steps to achieve compliance, Ohio EPA's Office of Compliance Assistance and Pollution Prevention (OCAPP) is also available to assist you. OCAPP is an independent office within Ohio EPA, established with a goal of providing information and resources to help businesses achieve compliance with the environmental regulations. In addition, we can help you identify ways to reduce waste and possibly save money. For more information on OCAPP's services, see the resource section for contact information and our Web site. Environmental compliance can be challenging, especially for small dental offices, but we are here to help you get in and stay in compliance.