REGULATION OF DENTAL AMALGAM UNDER THE NEW DENTAL OFFICE POINT SOURCE CATEGORY EFFLUENT LIMITS

WWADCON 2018
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### Berlitz Guide to Dentalese

<table>
<thead>
<tr>
<th>English</th>
<th>Dentalese</th>
</tr>
</thead>
<tbody>
<tr>
<td>This won't hurt a bit.</td>
<td>This will hurt a little bit.</td>
</tr>
<tr>
<td>This will pinch a little.</td>
<td>This is going to hurt for real.</td>
</tr>
<tr>
<td>You might feel this.</td>
<td>You'll feel this unless you are dead.</td>
</tr>
<tr>
<td>You may experience some mild discomfort.</td>
<td>Welcome to the worst pain you can imagine.</td>
</tr>
</tbody>
</table>

*Drawing by R. chats*
Dental Office Category Rule

- 40 CFR Part 441
- Effective July 14, 2017
• Dentists discharge approx 10.2 tons of metal per year to POTWs – 5.1 tons is mercury.

• As much as 50% of the mercury entering POTWs is contributed by dental offices.
Physical POTW processes remove about 90% of mercury.

Mercury removed ends up in POTW biosolids.
• Mercury not removed discharged by POTW to receiving stream.
• May cause POTW to violate NPDES mercury discharge limit.

• Requires installation of approved amalgam separator no later than December 31, 2013.

• Implement BMPs.

• Verify compliance with requirements each time license renewed (LARA).

• Act 503 contained in Public Health Code.
• Required certification is with LARA, not POTW.

• Preemption issues...
• Can adopt SUO that mirrors Act 503/Rules.
• Can issue permits to dentists requiring compliance with SUO that mirrors Act 503/Rules.
• But: Cannot require dentists to comply with numeric local limit for mercury.
New EPA Dental Office Category Rules

• NO SEPARATOR OR NEW OFFICE?

• Existing Dental Office ("DO"). If DO is not exempt, must install a compliant separator by July 14, 2020.

• New DOs that began operating on/after July 14, 2017, must be in compliance at time of opening (immediately).
New EPA Dental Office Category Rules

• SEPARATOR ALREADY INSTALLED?
• Separator is good until June 14, 2027 or unit needs to be replaced, whichever comes first.
New EPA Dental Office Category Rules

• IF SEPARATOR REQUIRED, WHAT BMPS AND ACTIONS REQUIRED?

   New: Must file an OTCR within 90 days of installation.
   Existing: Must file an OTCR by October 12, 2020 or 90 days after transfer of ownership.

2. Install and operate amalgam separator that meets specified standards (removal efficiency, etc.) for all amalgam process wastewater lines.
New EPA Dental Office Category Rules

3. Monitor separator according to manufacturer's recommendation.

4. Replace/Repair separator if malfunctioning according to manufacturer's instructions within 10 business days of discovering defect.

5. Maintain separator by replacing amalgam retaining cartridge, separator canister or units as directed by manufacturer or when the collection unit reaches capacity, whichever comes first.
New EPA Dental Office Category Rules

6. No discharge of scrap or waste dental amalgam into any drain.

7. No use of oxidizing cleaners when flushing dental unit water lines, chair-side traps and vacuum lines, including, but not limited to, bleach, chlorine, iodine and peroxide cleaning agents or any cleaners that have a pH of lower than 6 or greater than 8.
New EPA Dental Office Category Rules

ALSO, MUST MAINTAIN RECORDS ON SITE FOR 3 YEARS OF:

• Any other reports filed.
• A visual inspection log.
• Documentation of any repair or replacement.
• Disposal records.
• Manufacturer's current operating manual for the device in place.
New EPA Dental Office Category Rules

EXEMPT FROM INSTALLING BUT OTCR REQUIRED.

• DOs that do not place amalgam and do not remove amalgam except in limited emergency or unplanned, unanticipated circumstances, and who certify as such (estimated less than 5%).
New EPA Dental Office Category Rules

EXEMPT FROM ALL REQUIREMENTS

• No further action required (installation of separator and filing OTCR not required) for the following:
  • Dentists exclusively practicing in one of these specialties: oral pathology; oral and maxillofacial radiology; oral and maxillofacial surgery; orthodontics; periodontics; prosthodontics.
  • Wastewater discharges from a mobile dental unit or into a private septic system.
DIFFERENCES — FEDERAL AND STATE

• Apply to dental schools, clinics, hospitals, local health departments? Fed: Yes. Mich: No.

• Apply to discharges from mobile dental units?
  Fed: No. Mich: N/A.

• Apply to discharges to holding tanks?
  Fed: No. Mich: No (but…).

• Apply to discharges to septic system? Fed: No. Mich: Yes.
Differences — Federal and State

• Specifications for required amalgam separators: Fed and Mich roughly equivalent.
• Federal BMPs regarding prohibited line cleaning agents are more restrictive.
• Michigan BMPs regarding management of amalgam in DO more detailed.
DIFFERENCES – FEDERAL AND STATE

Important to POTWs:

Federal rule requires the filing of the OTCR, retention of OTCR by DO as long as DO remains in operation, and receipt and review of the OTCRs by POTWs.
DIFFERENCES – FEDERAL AND STATE

PREEMPTION:
Michigan rules: Limit what POTWs can do regarding regulation of dental discharges.
Federal rules: If DOs file OTCR with POTWs and comply with Federal BMPs, any additional or more restrictive state OR local requirements can also apply.
DIFFERENCES – FEDERAL AND STATE

PREEMPTION:
Guideline:

More restrictive Fed rules will trump less restrictive state requirements.
Fed requirements not in state rules will apply.
Dentists are nondomestic users. POTW responsibilities regarding ND users under Part 23 apply.
Federal rule: POTWs responsible for oversight of federal program.
POTWs: Affirmative duty to receive and review OTCRs.
MDEQ has developed an OTCR form: “State of Michigan One-Time Compliance Report for Dental Dischargers.”

MDEQ and EPA have posted the requirements online.

ADA/MDA notified DOs of federal requirements.
Good news!

Dental Offices ≠ SIUs or CIUs unless designated by POTW.

OTCRs “in lieu of otherwise applicable user reporting requirements in 40 CFR Part 403.”
RECOMMENDATIONS

• How federal and state dental rules addressed in SUO may vary depending on POTW’s IPP philosophy (proactive, etc.), particular circumstances, and whether meeting NPDES mercury requirements.

• With appropriate SUO provisions, POTW authority more flexible, expansive, and clear.
RESOURCES

• EPA Dental Effluent Guidelines Website: https://www.epa.gov/eg/dental-effluent-guidelines


• MDEQ Dental Rule Compliance Website: http://www.michigan.gov/deq/0,4561,7-135-3313_71618_3682_3683_3721-447200--,00.html

"Now open even wider, Mr. Stevens. ...
Just out of curiosity, we're going to see if we can also cram in this tennis ball."
QUESTIONS?

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