REGULATION BY POTWS OF MERCURY AMALGAM: DRILLING DEEPER

FRANKENMUTH, MICHIGAN
JANUARY 22, 2016
DENTAL OFFICES

As much as 50% of the mercury entering POTWs is contributed by dental offices.
IMPACTS AT POTW

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, or biosolids problems.
POTW RESPONSES

Require amalgam separators.
Require implementation of BMPs.
Implement numeric limits in permits (before Act 503).
MI ACT 503 (2008)

Requires dental offices to install separators by 12/31/13.

Separators must remove at least 95% per ISO 11143:2008 “Dental equipment — Amalgam separators.”
Installation, operation, maintenance, sizing, certification, and testing requirements for separators.

Required BMPs for collection, disposal, and recycling of dental amalgam waste.

Records retention/inspection requirements.

Verification of compliance on license renewal.

Sanctions for noncompliance (including fines).
PREEMPTION

Act 503 expressly preempts and supersedes any conflicting, different, or additional standards or requirements on dentists than those contained in the Act or the Rules.

And Act 503 expressly prohibits:

Requiring a dentist to obtain a permit that limits the discharge of mercury into wastewater with a limitation greater than that capable of being achieved by full compliance with Act 503.
POTWS CAN...

Can adopt ordinance that mirrors Act 503/Rules.

Can issue permits to dentists requiring compliance with ordinance that mirrors Act 503/Rules.

But:

Cannot require dentists to comply with numeric local limit for mercury.
ADOPT?

Decision influenced by the particular circumstances of the POTW in each case:

POTW meeting mercury limit (WQS 1.3 ng/l)?

POTW discharging to meet LCA (Level Currently Achievable) with approved PMP (pollutant minimization plan)?

Already using all reasonable cost-effective control measures of other known sources of mercury?

POTW knows dental offices not meeting local limit?
FEDERAL REGS

Proposed:
Categorical Pretreatment Standards for Dentists
Administered/Enforced by POTWs
CIUS/SIUS

Current:
POTW Oversight
Annual Inspections
Sampling Permits
DIUS

Dental Industrial Users
Less POTW Oversight IF:
User has installed separator; and
In full compliance with BMPs.
Otherwise, back to SIU.
DIU REQUIREMENTS

Install 99% efficient separator.

BMR.

90-day Compliance Report.

Annual Report.

Certify compliance with BMPs.

All reports to POTW.
DIU
REQUIREMENTS

Can continue using existing separators for 10 years.

If no use of amalgam, BMR and certification don’t need separators or BMPs.
Annual evaluation whether DIU in compliance with requirements. If not, must treat as SIU until return to compliance. Amend SUO and IPP to comply with Federal rules.
Too high a burden on POTWs (costs/effort).

Too little environmental benefit.
STATE VS FED RULES

Proposed Fed approach similar, but:
Fed establishes categorical pretreatment standards to be administered/enforced by POTWs.
IF FED RULES ENACTED...

Michigan will be required to conform its law with Fed requirements.

This includes Michigan Pretreatment Regs.

Otherwise, IPPs may be required for any POTW with dentists.
FINAL FED RULE?

EPA reconsidering details/approach based on comments.

Target date: Summer 2016.
QUESTIONS?

George Davis
Davis & Davis Law Offices
2624 Elmwood Dr SE
Grand Rapids, MI 49506
616-55-2304
georgebd@mac.com