

MEALEY'S®

Emerging Toxic Torts

At Risk: Our Nation's Drinking Water Supply

by
Susan E. Smith
and
George H. Buermann

Goldberg Segalla

**A commentary article
reprinted from the
October 17, 2017 issue of
Mealeys Emerging
Toxic Torts**



Commentary

At Risk: Our Nation's Drinking Water Supply

By
Susan E. Smith
and
George H. Buermann

[Editor's Note: Susan E. Smith is leader of the Toxic Tort Practice Group at the law firm Goldberg Segalla. She has extensive experience counseling clients on public health outbreak investigations and environmental regulatory matters, and guiding clients through incident response and remediation. In recent years, Susan and her team have represented clients facing Legionnaires' disease incidents, claims, and lawsuits in more than 15 states. George H. Buermann is a partner in the Newark, NJ office of Goldberg Segalla and helps lead the firm's Environmental Law Practice Group where he advises clients on complex environmental regulatory and compliance matters. George has also lectured extensively on a wide range of water contamination-related issues. Any commentary or opinions do not reflect the opinions of Goldberg Segalla or Lexis-Nexis®, Mealey Publications™. Copyright © 2017 by Susan E. Smith and George H. Buermann. Responses are welcome.]

The fragile state of the United States drinking water system is making waves (and headlines) across the country. The public drinking water systems in Flint, Michigan; Fresno, California; Corpus Christie, Texas; St. Joseph, Louisiana; East Chicago, Indiana; and Hoosick Falls, New York—to name a few—have experienced disruptions in the past several years due to combinations of infrastructure problems and intrusion of potentially toxic contaminants. The events in Flint, Michigan put a spotlight on the issue, and it has since become clear that the problems go far beyond just that one community. How our water authorities obtain, treat, and distribute drinking water, and what is in the water before and after treatment, is capturing national attention.

The National Primary Drinking Water Regulations address ninety different chemicals, microorganisms, and radioactive isotopes that are subject to exposure limits on the basis of U.S. Environmental Protection Agency (EPA) risk assessments.¹ Concerns about contamination are focused on both regulated contaminants and emerging and unregulated contaminants. The broad array of substances that exist in drinking water would surprise most of us. That colorless, odorless H₂O is anything but simply H₂O.

Lead Has Grabbed The Attention Of The Plaintiff's Bar—Again

One contaminant that is drawing attention now is lead. Lead contamination is a decades-old problem with a new focus. Childhood lead poisoning associated with lead-based paint in older housing has been the subject of a significant amount of personal injury litigation in many states since the early 1990s. The focus is now shifting to drinking water, instead of paint, as the medium of concern. Like many of the substances that are increasingly found in drinking water, lead has certain properties that make it useful in industry, but it also is potentially highly toxic. Lead has been used in the U.S. for many purposes, and in many applications, including ammunition, ceramic glazes, batteries, paint and protective coatings, water lines and pipes, cable covering, caulk, and as an additive in gasoline.² It is now widespread in the environment—in air, soil, dust, and water—because of its signature property, durability.

Lead—A Human Neuro-Toxin

Lead has been long been recognized as a neuro-toxicant associated with a wide range of health effects.³ Past risk

reduction efforts have focused on leaded gasoline, lead-based paint, and industrial waste. Reduction efforts have also included restrictions on the allowable levels of lead in toys, food cans, plumbing materials, and public water systems; and limits on industrial emissions of airborne lead.

To complement these source reduction efforts, the U.S. Centers for Disease Control and Prevention (CDC) provide guidance to medical doctors and public health officials for managing lead exposure. Blood levels are monitored through a public health surveillance process. When blood lead levels reach certain benchmarks, a range of public health interventions are initiated. These risk reduction efforts have been highly effective, with average blood lead levels declining by more than 90 percent since the mid-1970s.⁴ The EPA has described the reduction in childhood lead exposure as “[o]ne of the 10 great public health achievements in recent history.”⁵ However, recent events have shifted the focus back to lead as a contaminant of concern, with water as the targeted medium.

How Does Lead Get Into Drinking Water?

Drinking water, generally, comes from groundwater and surface water that is processed at treatment plants and then distributed through piping, mains, and other fixtures. The treatment process removes lead. Lead contamination of treated drinking water occurs primarily because of corrosion from lead-containing pipes and plumbing materials.⁶

Corrosion is the underlying issue in pending personal injury lawsuits related to lead-contaminated drinking water systems, which have been filed in Flint, Michigan; Chicago, Illinois; Philadelphia and Pittsburgh, Pennsylvania; Fresno, California; and Newark, New Jersey. The Flint, Michigan cases arise from a source water change. The Chicago lawsuit involves allegations that construction projects—street repairs, water main repairs, or plumbing repairs—disrupt the anti-corrosive mineral layer in the city’s water distribution pipes, allowing high levels of lead to leach into the water. The Philadelphia lawsuit involves similar allegations. It also takes issue with the city’s sampling methods for establishing compliance with the Lead and Copper Rule. Corrosion resulting in leaching of lead from pipes and fixtures is also at issue in the Pittsburgh case. The Fresno lawsuit arises from both a source water change and water infrastructure work, which allegedly caused

pipe corrosion and then leaching of lead from pipes and fixtures. The Newark lawsuit arises from decaying infrastructure in the form of old pipes and solders.

Though household exposure from lead-based paint is typically regarded as the primary source of exposure, lead in drinking water has long been recognized as a potential source.⁷ Its contribution to elevated blood lead levels, however, has not been perceived as significant. The CDC observes, “Most studies show that exposure to lead-contaminated water alone would not be likely to elevate blood lead levels in most adults, even exposure to water with a lead content close to the [EPA’s] ‘action level’ for lead of 15 parts per billion (ppb).”⁸ The EPA estimates that drinking water can contribute over 20 percent or more of an individual’s exposure to lead, and infants who are fed formula may have 40 to 60 percent of their lead exposure from decaying lead-based water pipes. Nevertheless, the CDC “has consistently affirmed its position that lead-based paint and lead-contaminated dust are the most hazardous sources of lead for U.S. children.”⁹

What Is The Legal Framework?

Congress enacted the Safe Drinking Water Act to “assure that the water supply systems serving the public meet minimum national standards for protection of public health.”¹⁰ The Act applies to “public water systems”, defined as “providing drinking water to at least 25 people or 15 service connections for at least 60 days per year”.¹¹ According to the EPA, there are 152,000 public water systems in the U.S., serving more than 300 million people.¹² Regulated entities must design, construct, operate, and maintain water supplies so contaminants in tap water do not exceed the standards. Premise plumbing systems that do not meet all the exemption criteria in SDWA Section 1411 and 40 CFR 141.3 are also subject to regulation.

The Act empowers the EPA to regulate the public drinking water supply.¹³ The EPA’s Safe Drinking Water Act regulations, known as the National Primary Drinking Water Regulations (NPDWRs), are aimed at limiting potentially harmful contaminants in public water systems. The Act, as amended in 1996, directs the EPA to select contaminants for regulatory consideration on the basis of occurrence, health effects, and meaningful opportunity for health risk reduction.¹⁴ The EPA must set either a maximum contaminant level (MCL) or maximum contaminant level goal

(MCLG) for each contaminant that the agency determines requires regulation. MCLGs, which are not enforceable, are set at a level at which no known or anticipated adverse human health effects occur.¹⁵

The EPA has adopted an MCLG of zero for lead in drinking water, under the NPDWRs.¹⁶ To date, the EPA has not adopted an MCL for lead in drinking water due to concerns about feasibility.¹⁷ In this circumstance, the EPA may establish a treatment technique in lieu of an exposure limit. The treatment technique prescribed for lead is known as the Lead and Copper Rule (LCR).¹⁸

The LCR requires public water systems to take action to control water corrosivity to minimize lead and copper in drinking water.¹⁹ The rule, first enacted in 1991, is intended to “provide maximum human health protection by reducing the lead and copper levels at consumers’ taps to as close to the MCLG as is feasible.”²⁰

Public water systems subject to the LCR must monitor levels of lead and copper within their distribution system to validate that the corrosion control program is effective. If lead concentrations exceed the action level, currently 15 parts per billion, in more than ten percent of the samples collected during the monitoring period, the primacy agency may order corrective actions such as a public education campaign focused on potential health risks, installation of corrosion control treatment, replacement of lead service lines, or increased frequency of testing.²¹ The action level, however, is not a health-based standard. Rather, it is a screening tool to determine if the corrosion control program is effective.²²

The LCR has been effective at reducing the levels of lead in drinking water systems. That said, LCR violations are not uncommon. In March 2016, it was reported that 41 states had Action Level Exceedances under the LCR in the last three fiscal years, and more than 431 of the 7,000 schools subject to the LCR reported heightened levels of lead between 2012 and 2015.²³ EPA data indicates that 350 schools and day-care centers failed lead tests approximately 470 times from 2012-2015.²⁴

How Is The SDWA Enforced?

State environmental agencies are authorized to take a primary role with implementation and enforcement of the SDWA if the state’s regulations meet or exceed the

federal requirements—49 of the 50 states have accepted primacy, with Wyoming being the exception.²⁵

The SDWA authorizes the EPA Administrator to bring a civil action to compel compliance, and to issue compliance orders.²⁶ Citizen enforcement suits against any person “alleged to be in violation of any requirement prescribed” by the Act are also authorized.²⁷ Citizen suits can obtain injunctive relief but not compensatory or punitive damages.²⁸ Common law claims also may be viable. Public water suppliers and private property owners who provide finished drinking water to consumers have legal exposure under common law theories of negligence. Tort claims against public water suppliers (and, possibly, quasi-public water suppliers) may be preempted by statutory claims under SDWA, if the violation of duty alleged in the negligence action constitutes violation of any SDWA regulation.

Defenses To Consider

Certain immunity-based defenses may be available to municipal entities. Qualified immunity protects government officials from suit unless they are “plainly incompetent. . .or knowingly violate the law.”²⁹ The public duty doctrine may also apply to bar negligence claims against public officials. For example, in *Parkhurst v. D.C. Water and Sewer Authority*, parents of children who had elevated blood lead levels filed suit against the D.C. Water and Sewer Authority, seeking compensatory damages and other remedies. In January 2016, the Superior Court for the District of Columbia granted partial summary judgment in favor of D.C. Water and Sewer Authority on the negligence and Consumer Protection Act claims.³⁰ The Superior Court ruled that the “public duty doctrine” barred the negligence claims because it was intended to protect government entities from lawsuits related to services provided to the public at large, such as furnishing drinking water.³¹ These defenses and immunities may limit or bar liability exposure. Tort reform measures, such as statutory caps on damages, may also limit recoverable damages. For example, some states, such as Maryland, cap the amount for which a local government can be sued (in Maryland’s case, it is generally \$200,000).

On The Horizon

With an increased focus on “what’s in the water” and more aggressive public health and regulatory compliance oversight, further reduction of exposure limits may be on the horizon. The EPA is required to “review and

revise” the LCR every six years.³² Proposed long-term revisions of the LCR, aimed at minimizing exposure to lead, creating clear and enforceable requirements; and promoting transparency, environmental justice, and children’s health, have been under review for many years. In February 2016, the EPA issued letters to states that have Safe Drinking Water Act primacy, “directing them to work with EPA on steps to strengthen protections against lead and on a broader set of critical priorities to keep our drinking water safe.”³³ Proposed long-term revisions of the Lead and Copper Rule are on the horizon. A final rule is expected in 2019.³⁴

The EPA also is considering implementation of a health-based “household action level” benchmark for lead in drinking water.³⁵ The timeframe for formal action on the proposed revisions and new standards, however, is unclear—especially in light of the policies of the new administration. While it is difficult to predict how the new administration’s goals and policies may impact the regulation of drinking water at the federal level, advocates, public health professionals, and the plaintiffs’ bar, will likely keep the spotlight on lead and pressure state and local governments, and private entities with potential legal exposure as public or quasi-public water suppliers, to continue to work towards the goal of a zero standard and elimination.

What Can We Do As Defense Counsel?

With the renewed focus and national media attention on lead as a contaminant of concern in our nation’s drinking water supply, the defense bar should be ready to counsel their clients on risk management strategies to avoid lawsuits, and ultimately, ways to defend themselves when the claim is made or the lawsuit is served.

Toxic tort cases alleging injury from exposure to lead-based paint have been defended primarily on the basis of source and causation. The source and causation issues in waterborne lead exposure cases are complex, because both the contaminant—lead—and the medium—water—are multi-source substances. Lead is commonly found in many media (air, soil, dust, and water), and most people come into contact with those media daily in their homes, but also in many other locations. A complete risk and exposure assessment evaluating all possible, probable, and likely sources of a plaintiff’s alleged lead exposure will be required. Medical causation issues will be similarly complex because

there is no signature health effect associated exclusively with lead exposure, and drinking water is generally not the dominant exposure pathway.³⁶

Endnotes

1. See 42 U.S. Code § 300g-1 -National drinking water regulations.
2. U.S. Geological Survey, Minerals information for Lead, <http://minerals.usgs.gov>.
3. U.S. EPA. Integrated Science Assessment (ISA) for Lead (Final Report, Jul 2013). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-10/075F, 2013.
4. GAO, *Drinking Water: Additional Data and Statistical Analysis May Enhance EPA’s Oversight of the Lead and Copper Rule*, GAO-17-424 (Washington, D.C., September 2017).
5. U.S. EPA. “A Public Health Approach to Addressing Lead,” available at <https://www.epa.gov/lead/public-health-approach-addressing-lead>.
6. U.S. EPA, *Lead and Copper Rule Revisions White Paper*, October 2016, p. 3.
7. “Lead in Drinking Water and Human Blood Lead Levels in the United States,” United States Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report, August 10, 2012. MMWR Suppl. 2012 Aug 10;61(4):1-0.
8. U.S. CDC, “Lead, Tips, Sources of Lead—Water,” www.cdc.gov/nceh/lead/tips/water.htm.
9. Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance; Response to Elevated Blood Lead Levels, 82 Fed. Reg. 9, at 4151 (January 13, 2017).
10. 93 P.L. 523; H.R. Rep. No. 1185, 93d Cong., 2nd Sess. 1 (1974).

11. 42 U.S.C. 300f.
12. 40 C.F.R. pt. 141.3.
13. *Matoon v. Pittsfield*, 980 F.2d 1, 4 (1st Cir. 1992). See also 40 CFR § 141.1 through 40 CFR § 143.4. The safety of public water systems is also regulated through 42 USCS § 300f through 42 USCS § 300j-26 and 42 USCS § 300g.
14. 42 U.S.C. § 300g-1(b).
15. 40 C.F.R. § 141.1.60 through 40 C.F.R. § 141.66.
16. EPA National Primary Drinking Water Regulations Complete Table (EPA 816-F-09-004) (May 2009).
17. 56 Fed. Reg. 32112 (July 15, 1991).
18. See 40 C.F.R. pt. 141, subpt I.
19. See 40 C.F.R. § 141.80(d)(1) and 40 CFR § 141.2.
20. Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper, 56 Fed. Reg. 26460-01 (June 7, 1991).
21. 40 C.F.R. § 141.81-.85 and 56 Fed. Reg. 264460-61 at 26477.
22. 56 Fed. Reg. 26460-01 (June 7, 1991; U.S. EPA, *Lead and Copper Rule Revisions White Paper*, October 2016, p. 6.
23. <http://www.cnbc.com/2016/03/24/americas-water-crisis-goes-beyond-flint-michigan.html>.
24. Laura Ungar, "Lead taints drinking water in hundreds of schools, day cares across USA," USA TODAY, Mar. 17, 2016.
25. 42 U.S.C. § 300i.
26. 42 U.S.C § 300g-3(b), § 300g-3(b)(1), § 300i.
27. 42 U.S.C. § 300j-8(a)(1).
28. 42 U.S.C. § 300j-8(a).
29. *Malley v. Briggs*, 475 U.S. 335 (1986).
30. *Parkhurst, et al. v. D.C. Water and Sewer Authority (WASA)*, 2016 D.C. Super. Lexis 1 (D.C. Super. Ct. January 13, 2016).
31. *Id.*
32. 42 U.S.C. § 300g-1(b)(9).
33. U.S. EPA, "Moving Forward for Americas Drinking Water," EPA Connect Blog, April 26, 2016.
34. GAO, *Drinking Water: Additional Data and Statistical Analysis May Enhance EPA's Oversight of the Lead and Copper Rule*, GAO-17-424 (Washington, D.C., September 2017).
35. <https://www.epa.gov/dwstandardsregulations/lead-modeling-peer-review>.
36. Zartarian, et al., Children's Lead Exposure: A Multi-Media Modeling Analysis to Guide Public Health Decision Making, *Environ Health Perspect*; DOI:10.1289/EHP1605. ■

MEALEY'S: EMERGING TOXIC TORTS

edited by James Cordrey

The Report is produced twice monthly by



1600 John F. Kennedy Blvd., Suite 1655, Philadelphia, PA 19103, USA

Telephone: (215)988-7733 1-800-MEALEYS (1-800-632-5397)

Email: mealeyinfo@lexisnexis.com

Web site: www.lexisnexis.com/mealeys

ISSN 1089-0882