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Bill Analysis

Version: As Introduced

Primary Sponsors: Reps. Lightbody and Russo

Helena Volzer, Attorney

SUMMARY

- Requires the Director of Environmental Protection to adopt rules establishing maximum allowable contaminant levels (MCLs) in drinking water and water quality standards for the following contaminants:
 - Per- and polyfluoroalkyl substances (PFAS);
 - Chromium-6;
 - 1,4-dioxane.
- Requires the Director to consider certain factors when establishing the MCLs and water quality standards, such as MCLs and water quality standards established by other states.
- Specifies that the MCLs and water quality standards must be protective of public health, including the health of pregnant women, nursing mothers, infants, and children.
- Specifies that the MCLs and water quality standards cannot be less stringent than any MCL or water quality standard established by the U.S. Environmental Protection Agency (USEPA).
- Requires the Director to annually review MCLs and standards established under the bill's provisions and to adopt, amend, or rescind them as necessary to account for the most recent peer-reviewed scientific studies addressing the contaminants.
- Excludes rules adopted under the bill's provisions from the requirement to eliminate two or more existing regulatory restrictions when adopting a new regulatory restriction.

DETAILED ANALYSIS

Background

Drinking water

The federal Safe Drinking Water Act (SDWA) establishes the framework for the regulation of public drinking water systems in the United States. Under the SDWA, the U.S. Environmental Protection Agency (USEPA) establishes national primary standards for drinking water quality that the states are tasked with implementing. Regarding individual contaminants, USEPA establishes a maximum contaminant level (MCL), which is the maximum allowable concentration of a contaminant in a given volume of drinking water. MCLs are established by the USEPA for contaminants that may adversely affect human health. Once established, national primary drinking water standards and MCLs are legally enforceable, meaning that states and USEPA have the authority to take enforcement action against public water systems that are not meeting safety standards. Such actions can include issuing administrative orders, pursuing civil or criminal legal action, or imposing fines.¹

Surface water quality standards

Under the federal Clean Water Act, every state must adopt water quality standards to protect, maintain, and improve the quality of surface waters. The standards inform the water quality-based permit restrictions that limit the discharge of pollutants into surface waters under the National Pollutant Discharge Elimination System (NPDES) permit program. In addition, water quality standards establish numerical human health water quality criteria that are used in determining whether or not a body of surface water is safe for use as a source of drinking water. Similar to an MCL, states and the USEPA have the authority to take enforcement actions against polluters who violate permit requirements based on the water quality standards (e.g., issuing administrative orders, pursuing civil or criminal legal action, or imposing fines).²

MCLs and water quality standards for certain contaminants

The Ohio Environmental Protection Agency (OEPA) has adopted the national primary drinking water standards and water quality standards.³ However, the national standards do not address all potential contaminants. Three such contaminants are Chromium-6 (although USEPA has established an MCL of 0.1 mg/l for total chromium); per- and polyfluoroalkyl substances (PFAS); and 1,4-dioxane (See, “**Chemical Descriptions**,” below).

The bill requires the Director of OEPA to establish an MCL and water quality standard for each of those contaminants. Regarding PFAS, MCLs must be established for:

¹ R.C. Chapter 6109.

² R.C. Chapter 6111 and see OEPA, Water Quality Standards Program (last visited February 10, 2020) available at: <https://epa.ohio.gov/dsw/wqs/index#123033404-overview>.

³ Ohio Administrative Code (O.A.C.) Chapter 3745-81.

- Combined total PFAS;
- Perfluorooctanoic acid;
- Perfluorooctane sulfonic acid; and
- Any other individual PFAS, as determined necessary by the Director.⁴

When establishing the MCLs and water quality standards, the bill requires the Director to consider all of the following information:

- MCLs and water quality standards established by other states;
- Studies and scientific evidence reviewed by other states;
- Materials produced by the Federal Agency for Toxic Substances and Disease Registry; and
- Recent independent and government agency peer-reviewed scientific studies.

MCLs and water quality standards established by the Director must be protective of public health, including the health of pregnant women, nursing mothers, infants, and children. The established MCLs and standards cannot be less stringent than any MCL, water quality standard, or health advisory that may be established by USEPA.⁵

The Director must annually review the MCLs and water quality standards and adopt, amend, or rescind them as necessary to account for the most recent peer-reviewed scientific studies addressing the contaminants.⁶ The bill excludes rule making for purposes of establishing the MCLs and water quality standards from the requirement to eliminate two or more existing regulatory restrictions when adopting a new regulatory restriction.⁷

As previously discussed (see “**Background**”), by requiring that MCLs and water quality standards be established for PFAS, Chromium-6, and 1,4-dioxane, the bill authorizes OEPA to take enforcement action against public water systems that do not comply with the new MCLs or against polluters who violate the new water quality standards (e.g., issuing administrative orders, pursuing civil or criminal legal action, or imposing fines).⁸

⁴ R.C. 6109.26(B)(1) and 6111.041(D)(1).

⁵ R.C. 6109.26(B)(2) and (3) and 6111.041(D)(2) and (3).

⁶ R.C. 6109.26(C) and 6111.041(D)(4).

⁷ R.C. 6109.26(D) and 6111.041(F).

⁸ R.C. Chapters 6109 and 6111.

Chemical descriptions

The following table provides some basic information concerning the contaminants the bill proposes to regulate. All three types of contaminants are persistent in the environment and in the human body, meaning they do not break down and can accumulate over time. Information concerning any potential health considerations is derived from USEPA reports.

Contaminant name and description	Uses or purposes	Potential health considerations according to USEPA
PFAS are a group of man-made chemicals that include perfluorooctanoic acid and perfluorooctane sulfonic acid.	PFAS have been in use in the United States since the 1940s and are found in a wide variety of consumer and industrial products.	USEPA has found that due to widespread use and persistence in the environment, most people in the United States have been exposed to PFAS. There is evidence that continued exposure above specific levels to certain PFAS may lead to adverse health effects. ⁹
Chromium-6 (hexavalent chromium) is a metallic element found naturally in rocks, plants, soil and volcanic dust, and animals but can also be man made by industrial processes.	Commonly occurs in natural waters due to the erosion of natural chromium deposits. However, industrial releases of it have occurred due to leakage, poor storage, or inadequate waste disposal practices.	The current MCL of 0.1 mg/l or 100 ppb for total chromium was established in 1991. Ohio adopted this standard which is based on potential adverse skin reactions. ¹⁰ USEPA has been reviewing new data regarding other potential health considerations related specifically to Chromium-6. ¹¹

⁹ USEPA, EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan (USEPA PFAS Action Plan), p. 1 (February 2019), available at: https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf.

¹⁰ O.A.C. 3745-81-11.

¹¹ USEPA, Chromium Drinking Water Standard, available at: <https://www.epa.gov/sdwa/chromium-drinking-water#self> (last visited February 10, 2020).

Contaminant name and description	Uses or purposes	Potential health considerations according to USEPA
1,4-dioxane is a man-made chemical. ¹²	Used as a solvent in a variety of commercial and industrial applications, such as the manufacture of other chemicals, as a processing aid, a laboratory chemical, and in adhesives and sealants.	USEPA states 1,4-dioxane is a potential human carcinogen. ¹³

HISTORY

Action	Date
Introduced	02-06-20

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¹² USEPA, Chemical Description of 1,4-Dioxane, available at: <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-evaluation-14-dioxane> (last visited February 10, 2020).

¹³ USEPA, Technical Fact Sheet – 1,4-Dioxane (November 2017), available at: https://www.epa.gov/sites/production/files/2014-03/documents/ffro_factsheet_contaminant_14-dioxane_january2014_final.pdf.