**Regulation Summary**

**310 CMR 42.00: Certification and Operation of Environmental Analysis Laboratories**

**and**

**310 CMR 22.00: Drinking Water Regulations**

The Massachusetts Department of Environmental Protection (MassDEP) proposes to revise its regulations at 310 CMR 42.00 for the Certification and Operation of Environmental Analysis Laboratories to add a new certification category for Per- and Polyfluoroalkyl substances (PFAS). Changes to 310 CMR 22.00, the Drinking Water regulations, are also proposed which will add references to the appropriate laboratory methods to be followed by certified laboratories. MassDEP is separately proposing revisions to the Timely Action and Fee regulations at 310 CMR 4.00 to create a permit fee category for PFAS laboratory certification.

**Background**: MassDEP certifies environmental analysis laboratories for the chemical, radiochemical, and microbiological analysis of potable water. The specific analytes for which certification is offered include those regulated by MassDEP’s Drinking Water Program, which has been given primacy by the U.S. Environmental Protection Agency (EPA) to implement the federal Safe Drinking Water Act, 42 U.S.C. §§ 300h – 300h-8 (SWDA). Certification is voluntary; laboratories are not required to be certified in order to operate in Massachusetts – however certification is required for labs performing drinking water compliance testing. Certified laboratories may also perform testing for local boards of health and for private citizens who wish to be assured of obtaining valid data.

The regulations at 310 CMR 42.00 establish procedures for MassDEP to certify laboratories that demonstrate the ability to consistently produce valid data. The regulations establish minimum criteria for personnel, facilities, equipment, proficiency tests, inspections, methodology employed, and quality assurance/quality control procedures that must be met by laboratories that are certified or that are seeking certification.

PFASs are highly fluorinated aliphatic compounds that have been manufactured and used in a variety of consumer products and industries worldwide. PFAS have been released to the environment through a variety of means, are known to be a persistent pollutant, and can contaminate drinking water. Exposure to PFAS has been associated with adverse health effects, including changes in thyroid, liver and kidney function as well as potential human developmental, reproductive and systemic effects. They are considered to be “emerging contaminants” because of the incomplete scientific information about their effects and new information becoming available from ongoing studies. EPA has not established a drinking water standard (maximum contaminant level), or current testing requirement for PFAS, and does not certify laboratories to analyze drinking water for these compounds. There is an EPA approved laboratory methodology (testing procedures and protocols), known as Method 537 and 537.1, for laboratories to follow when testing drinking water for PFAS.

**Revisions**: MassDEP is proposing to amend the lab certification regulations at 310 CMR 42.05(1)(b) to offer a new certification category to environmental laboratories to analyze drinking water for PFAS. Massachusetts is proposing what other states are also doing for these emerging contaminants: planning to certify laboratories to conduct analysis for PFAS in drinking water.​​

Laboratories are currently performing PFAS testing for Massachusetts drinking water systems following guidance from the Drinking Water Program and the Laboratory Certification Program. Until MassDEP completes this regulatory change, the Drinking Water Program is relying on certification of laboratories by other states, or the National Environmental Accreditation Program, and use of EPA’s methodology for FPAS testing (method 537/537.1) by those laboratories.  Our confidence in results from laboratories certified by other states is based on MassDEP reviewing documentation of analysis, evaluating the quality control data, and checking adherence to approved method 537 procedures. Once established, the PFAS laboratory certification category will allow MassDEP to ensure that certified labs are following the analytical procedures of method 537, provide grounds for enforcement (de-certification, etc.) for labs not performing in a reliable manner, and allow us to rely more on the work of qualified certified laboratories.  This process of developing a certification category for emerging contaminants has been followed before in Massachusetts and other states.

The EPA approved methodology (testing procedures and protocols) for PFAS testing in drinking water is currently being followed by laboratories analyzing drinking water in Massachusetts for the MassDEP drinking water program. Companion changes to the Drinking Water regulations are also proposed to specify the approved methods that certified laboratories must use for PFAS analysis in drinking water.

The approved method for another contaminant regulated in Massachusetts, but not regulated by EPA (1,4 -Dioxane), is also proposed to be added to the Drinking Water regulations. The changes to both sets of regulations will clarify that laboratories certified by Massachusetts to test for PFAS and 1,4-Dioxane in drinking water must use one of the approved methods listed for those analytes in 310 CMR 22.00.