



NOTIFICATION LEVEL ISSUANCE

Contaminant(s):	perfluorobutane sulfonic acid (PFBS)
Notification Level:	0.0005 milligrams per liter
Response Level:	single or confirmed sample of 0.005 milligrams per liter (see finding 8)
Analytical Method:	EPA Method 537.1 or EPA Method 533
Toxicological Endpoint:	reduction of the thyroid hormone, thyroxine (T4), in pregnant female mice

FINDINGS:

1. Health and Safety Code section 116455 provides the State Water Resources Control Board (State Water Board) with the authority to issue notification and response levels for contaminants in drinking water delivered for human consumption before a maximum contaminant level has been set. Pursuant to subdivision (k)(2) of section 116271 of the Health and Safety Code, the Deputy Director of the Division of Drinking Water (DDW) is delegated the State Water Board's authority to issue notification and response levels.
2. Notification levels are nonregulatory, health-based advisory levels for contaminants that are established as precautionary measures for contaminants.
3. Response levels are established in conjunction with notification levels and represent the concentration of a drinking water contaminant at which additional steps, beyond notification, are recommended to reduce public exposure. For contaminants with non-cancer health risks, a level 10 times the toxicological endpoint is consistent with an acceptable margin of safety.
4. The establishment of notification and response levels does not require public water systems to monitor for the contaminant, except when water systems are subject to the recycled water regulations. Some water systems, however, will sample for constituents in addition to those contaminants for which there are MCLs, and if those monitoring results indicate that a notification level has been exceeded, the water system must comply with Health and Safety Code section 116455. In addition to those requirements, DDW recommends that a public water system inform its customers and consumers about the presence of the contaminant and any health concerns associated with exposure.
5. Since the early 1980s, notification levels (known as "action levels" through 2004) for 96 contaminants have been established. Of those, 40 have gone through the formal



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regulatory process and now have MCLs and 24 chemicals have archived advisory levels. Currently there are 32 chemicals with notification levels. For more information: https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/NotificationLevels.html

6. PFBS is a member of a large class of chemicals known as per- and polyfluoroalkyl substances (PFAS). The contamination of drinking water with PFAS has become an increasing concern due to the tendency of PFAS to accumulate in groundwater. PFBS is a four-carbon fluorocarbon with a functional group that acts as anionic surfactant that can be used in numerous commercial products to offer water- and stain-repellent properties. PFBS was developed and manufactured to replace toxic eight-carbon chain perfluorooctane sulfonate (PFOS).
7. Health and Safety Code section 116378 requires community water systems and nontransient noncommunity public water systems, when ordered to monitor, and where detected levels of perfluoroalkyl substances and polyfluoroalkyl substances exceed their notifications to provide public notification, or where they exceed response levels, to take the affected water sources out of use or provide public notification within 30 days of the confirmed detection.
8. Exceedance of the PFBS response level is determined by either a single sample or a confirmed sample. If laboratory analysis detects the presence of constituent in any sample above the response level, the water system will have an option to conduct a confirmation sample within 30 days of being notified of the result by the laboratory. If a confirmation sample is collected and analyzed, all results will be averaged within that quarter to determine if the confirmed detection is greater than the response level.
9. In February 2020, DDW requested that the Office of Health Hazard and Assessment (OEHHA) prepare a recommendation for a notification level for PFBS.
10. In January 2021, OEHHA provided a recommended notification level for PFBS in drinking water based on thyroid hormone reduction in pregnant mice. The level of 0.5 µg/L (microgram/liter) or parts per billion (ppb) represents the concentration of PFBS in drinking water that would not pose any significant health risk.
11. In accordance with section 116456 of the Health and Safety Code, DDW posted the proposed notification and response levels for PFBS on its website, along with OEHHA's recommendation and links to studies relied upon. DDW provided notice of the proposed notification and response levels, with supporting documentation, via email on January 29, 2021.
12. On March 2, 2021, DDW presented the proposed notification level of 0.5 ppb and a response level of 5 ppb for PFBS as an informational item during the regularly noticed meeting of the State Water Board.



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Therefore, the Deputy Director of DDW establishes a PFBS notification level of 0.5 ppb and response level of 5 ppb.

Approved:

A handwritten signature in black ink, appearing to read "Darrin Polhemus".

3/5/2021

Darrin Polhemus, P.E.
Deputy Director, Division of Drinking Water
State Water Resources Control Board

Date