NOTIFICATION LEVEL ISSUANCE

Contaminant(s):	perfluorooctanesulfonic acid (PFOS)
Notification Level:	0.0000065 milligrams per liter
Response Level:	Calculated four-quarter running average of 0.000040 milligrams per liter (see finding 10.)
Analytical Method:	EPA Method 537.1
Toxicological Endpoint:	liver tumors in male rats and the structural and biological similarity to perfluorooctanoic acid (PFOA)

FINDINGS:

1. Health and Safety Code section 116455 provides the State Water Resources Control Board's Division of Drinking Water (DDW) the authority to issue notification levels for contaminants in drinking water delivered for human consumption before a maximum contaminant level has been set.
2. Notification levels are nonregulatory, health-based advisory levels for contaminants that are established as precautionary measures for contaminants.
3. The establishment of a notification level 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 the statute's notification requirements.
4. The contamination of drinking water with perfluoroalkyl substances (PFASs) has become an increasing concern due to the tendency of PFASs to accumulate in groundwater. These manmade compounds have been used extensively in consumer products such as carpets, clothing, fabrics for furniture, paper packaging for food, and other materials *(e.g.*, cookware) designed to be waterproof, stain-resistant, or non-stick. In addition, they have been used in fire-retarding foam and in various industrial processes.
5. In August 2019, the Office of Health Hazard and Assessment (OEHHA) developed PFOS reference levels in drinking water associated with liver tumors in male rats and the structural and biological similarity to perfluorooctanoic acid (PFOS). The level of 0.4 ng/L (nanogram/liter) or parts per trillion (ppt) represents the concentration of PFOS in drinking water that would not pose more than a one in one million cancer risk.

6. On August 22, 2019, DDW established a notification of 6.5 parts per trillion (ppt) and a response level of 70 ppt for PFOS.
7. OEHHA's scientific review and recommendation has warranted the revision of the response level for PFOS.
8. Response levels are established at 100 times the established the 10^{-6} cancer risk level. A level 100 times the theoretical lifetime risk of up to one excess case of cancer in 10,000 people, the upper value of the 10^{-6} to 10^{-4} risk range typically allowed by regulatory agencies.
9. Based on the cancer risk, the response level for PFOS is being established at 40 parts per trillion.
10. Exceedance of the PFOS response level is determined by a quarterly running annual average (QRAA). The QRAA means the average of sample results taken at an individual source or entry point location during the previous four calendar quarters. The QRAA is re-calculated each quarter using the most recent four quarters of results. If sampling has just begun, such as the in the first quarter, then the other quarters will be considered to have a zero value, and the first quarter results would be divided by four. If any sample would cause the QRAA to exceed a response level, the water source would exceed the response level.
11. Health and Safety Code section 116378 require community water systems or a nontransient noncommunity public water systems, when ordered to monitor, and where detected levels of perfluoroalkyl substances and polyfluoroalkyl substances exceed their notification levels 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.

Approved:

2/6/2020

Darrin Polhemus, P.E. — Date
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State Water Resources Control Board