ERM MARKET UPDATE

San Francisco Regional Water Quality Control Board PFAS Screening Levels

October 2020

The San Francisco Regional Water Quality Control Board (SFRWQCB) California has developed interim final risk-based Environmental Screening Levels (ESLs) for perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) in soil and groundwater.

The California Water Board has developed an investigation approach to evaluate the presence of per-and polyflouroalkyl substances (PFAS) throughout the state, which has resulted in statewide investigation orders being issued to commercial airports, municipal solid waste landfills, chrome plating facilities, and wastewater treatment plants as well as oil refineries and bulk terminals. The SFRWQCB developed ESLs to assist in assessing the potential threats to human health and the environment as part of these investigations. The state is anticipating that the interim final ESLs will be added to the ESL workbook as part of the next major ESL update (2021)[i].

The SFRWQCB has also developed an approach to actively identify additional sites for investigation and are actively regulating PFOS and PFOA. Due to the low screening levels and widespread use, mobility, and persistence of PFAS, background sampling is recommended in effort to distinguish between site-related impacts and ambient concentrations.

Interim Final ESLs

ESLs have been derived for PFOS and PFOA, but as more data becomes available, ESLs may be developed for other PFAS chemicals. Final interim screening levels for groundwater are:

Final Interim Screening Levels for Groundwater

Chemical	Direct Exposure Human Health	MCL Priority ESL	Ecotoxicity Aquatic Habitat	Seafood Ingestion
PFOS	1.7 ng/L	6.5 ng/L	75 ng/L	0.0047 ng/L
PFOA	0.54 ng/L	5.1 ng/L	4400 ng/L	0.022 ng/L

Ng/L-nanograms per liter

[i] https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/ESL/PFAS_ESL_Memo.pdf

Final Interim Screening Levels for Soil

Chemical	Direct Exposure*			Terrestrial Habitat		Leaching	
	Residential	Commercial/ Industrial	Construction Worker	Significantly Vegetated	Minimally Vegetated	To Drinking Water	To Aquatic Habitat
PFOS	12 µg/Kg	51 µg/Kg	290 µg/Kg	13 µg/Kg	50 µg/Kg	0.4 µg/Kg	0.00029 µg/Kg
PFOA	3.8 µg/kg	16 µg/Kg	93 µg/Kg	84 µg/Kg	840 µg/Kg	0.097 µg/Kg	0.00042 µg/Kg

µg/Kg-microgram per kilogram

*Direct exposure ESL represents lower of cancer/non-cancer ESL

Requests for Testing, Site Investigation, and Cleanup

SFRWQCB has developed a preliminary prioritization approach to help identify potential sites for occurrence testing that were not included in the State Water Board investigation orders. The prioritization is focused on sites with current and historical uses of PFAS including:

- Fire-fighting practice training areas
- Semiconductor and Electronics manufacturers
- Former chrome plating and non-chrome metal plating and finishing facilities
- Mining sites including (copper, gold, aluminum, vanadium, and uranium)
- Textile manufacturers and processors
- Furniture manufacturers and upholsterers
- Carpet manufacturers
- Cardboard/paper packaging manufacturers
- Surface coatings, paints, varnish manufacturers and high volume users
- Manufacturers of known PFAS-containing products[ii]

Occurrence testing will prioritize sites with a high potential for a spill or discharge to the environment and will consider the proximity of the site to drinking water or aquatic resources. Additional delineation and cleanup requests will consider these factors as well as economic factors.

Ambient Levels and Inventory

Due to the widespread use of PFAS in commercial and industrial products, PFOA/PFOS may be present in the environmental at concentrations above ESLs. Background sampling is recommended to distinguish on-site sources from ambient concentrations or other neighboring sources. Understanding the specific products and locations where your facility may have used PFAS containing products and separating those from other potential sources will be an

[ii] Includes: dental floss, non-stick cookware, food packaging materials, waterproof/resistant textiles, polishes, waxes, cleaning products, medical garments, adhesives, cosmetics, hair conditioners, and lotions

important element of understand if source mitigation is needed to reduce the risk to ongoing impacts to groundwater.

Other California Updates

Fire Fighting Foams	• Beginning January 1, 2022, foams with added PFAS cannot be sold or used in California • Certain facilities with foam fire suppression systems designed with containment systems can continue to use these foams until January 2024 • The rule does not go into effect for oil terminals/refineries until 2028 • The rule does not apply to facilities required by the federal governmental to use PFAS containing foams
Fire Fighting Personal Protective Equipment (PPE)	• PFAS containing PPE can no longer be sold in California as of January 1, 2022
Sampling Manual	• The California State Water Quality Control Board has issued sampling guidelines for wastewater, surface water, groundwater wells, biosolids, and soil/sediment
Results for Sampling Orders Issued to Date	• California has issued sampling orders for selected airports, landfills, chrome plating operations, and waste water treatment facilities. • https://www.waterboards.ca.gov/pfas/#pfas_maps

Key contacts

For more information, contact your current ERM consultant or one of the following subject matter experts below:

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