



Gavin Newsom, Governor
Jared Blumenfeld, Secretary for Environmental Protection
Lauren Zeise, Ph.D., Director

December 29, 2021

Dr. Suhair Shallal
Designated Federal Officer
US Environmental Protection Agency (US EPA)

Subject: Science Advisory Board Review of US EPA's Proposed Approaches to the Derivation of Maximum Contaminant Level Goals (MCLGs) for Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonic Acid (PFOS)

Dear Dr. Shallal:

The California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) is submitting information via this letter and links contained herein for consideration by the Science Advisory Board (SAB) in its review of US EPA's proposed approaches to the derivation of draft MCLGs for PFOA and PFOS in drinking water. OEHHA recently developed two documents of relevance to the SAB review, a public review draft document that speaks directly to the risks of PFOA and PFOS in drinking water, and a hazard identification document that addresses the potential cancer hazard of PFOS. The latter document was considered by an external committee of 11 scientific experts that determined that PFOS and its salts and precursors were known to the state to cause cancer under California's Proposition 65 (CA Health and Safety Code 25249.5 et seq).

OEHHA's Proposed PHG for PFOA and PFOS

In July 2021, OEHHA released proposed Public Health Goals (PHGs), which are analogous to US EPA's MCLGs, for PFOA and PFOS in drinking water. The PHG document is available at:

<https://oehha.ca.gov/sites/default/files/media/downloads/crn/pfoapfosphgdraft061021.pdf>.

OEHHA's proposed PHG for PFOA is based on kidney cancer in humans and the proposed PHG for PFOS is based on cancer in animals. When PHGs are based on cancer effects, OEHHA also develops "Health-Protective Concentrations" (HPCs) for noncancer effects. OEHHA, like US EPA, found compelling human evidence for adverse noncancer health effects for both PFOA and PFOS. The draft OEHHA HPC for PFOA is based on increased risk of liver damage, and for PFOS is based on increased total cholesterol.

There are differences between the toxicokinetic approaches used by US EPA and OEHHA in converting serum concentrations of PFOA and PFOS to human equivalent doses. Some of these differences can be traced to different estimates of kinetic parameters, such as volume of distribution.

Cancer Hazards of PFOS and Its Precursors

In September 2021, OEHHA released the document entitled “Evidence on the Carcinogenicity of Perfluorooctane Sulfonic Acid (PFOS) and Its Salts and Transformation and Degradation Precursors”. The document is available at:

<https://oehha.ca.gov/media/downloads/crn/pfoshid092421.pdf>

The document provides an in-depth review and compilation of the evidence on the carcinogenicity of PFOS. It summarizes the available evidence from carcinogenicity studies in humans and animals, and uses the key characteristics of carcinogens to systematically identify, organize, and summarize information on PFOS and mechanisms of carcinogenesis. This document, along with the original papers cited therein and public comments, were provided to the Proposition 65 Carcinogen Identification Committee, a group of external scientific experts appointed by the Governor, for consideration in deciding whether PFOS and its salts and transformation and degradation precursors should be listed as carcinogens under Proposition 65. On December 6, 2021, the Committee determined that PFOS and its salts and transformation and degradation precursors were known to the state to cause cancer under Proposition 65 (8 yes, 2 no, 1 abstention). The chemical and its salts and precursors were subsequently added to the Proposition 65 list as carcinogens, effective December 24, 2021.

Thank you for the opportunity to submit this information relevant to the SAB review of the US EPA draft proposals. Should the SAB or US EPA wish to follow up on the above information they may contact Dr. Vincent Cogliano, OEHHA Deputy Director for Scientific Programs, at Vincent.Cogliano@oehha.ca.gov. OEHHA looks forward to the SAB's upcoming deliberations on US EPA's important work.

Sincerely,

Lauren Zeise, Ph.D.
Director