



CalEPA
California Environmental
Protection Agency



PFAS Chemicals in California: The Current Need for Characterization

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY



California Environmental Protection Agency

Mission

Our mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality.

We fulfill our mission by developing, implementing and enforcing environmental laws that regulate air, water and soil quality, pesticide use and waste recycling and reduction.

Our departments are at the forefront of environmental science, using the most recent research to shape the state's environmental laws.

The Urgent Challenge of PFAS Chemicals

- Cause adverse health effects including cancer, reproductive toxicity, immune system effects
- Persistent, resistant to degradation
- Highly mobile in water
- Bioaccumulative

The Urgent Challenge of PFAS Chemicals

- Thousands in number
- Widespread use across a broad range of product categories and manufacturing processes
- Regrettable substitutions
- Existing and future contamination
- High cost of research, monitoring, investigation, treatment, clean up, removal
- Limited regulatory tools

CalEPA Regulatory Actions:

Department of Toxic Substances Control (DTSC) – Safer Consumer Products

- Objective: Create safer substitutes for hazardous chemicals in consumer products
- Precautionary framework, based on hazard traits like carcinogenicity
- Can regulate on class basis
- Current PFAS Action: Carpets and Rugs. Proposed priority product listing.
- Possible Future PFAS Action: Food packaging included in 2018-20 work plan; concern regarding PFAS migration from food packaging to packaged food

CalEPA Regulatory Actions:

Department of Toxic Substances Control

- **Hazardous waste facilities – Request for Information Regarding PFOA and PFOS**
 - Requests for information sent to hazardous waste treatment, storage and disposal facilities
 - Identify industries generating hazardous waste containing PFOA and PFOS
 - Identify how waste containing PFOA and PFOS is managed
 - Identify how and where that waste is being disposed

CalEPA Regulatory Actions:

Office of Environmental Health Hazard Assessment

- **Proposition 65 Listing**

- PFOA and PFOS listed under Prop 65 based on developmental toxicity in 2017

- **Notification Levels**

- Proposed interim notification levels for PFOA and PFOS, which were adopted by the State Water Resources Control Board in 2018

CalEPA Regulatory Actions:

State Water Resources Control Board

- **Interim Notification Levels.** Public health protection of drinking water supplies issued in 2018 for PFOA (14ppt) and PFOS (13 ppt)
 - Advisory, non-regulatory levels
 - Recommendations to monitor for PFOA and PFOS; may be followed by development of regulatory limits
 - Response level of 70 ppt for combined concentration of PFOA and PFOS; if exceeded in drinking water provided to consumers, the Water Board recommends removing the water from service

CalEPA Regulatory Actions:
State Water Resources Control Board

PFAS Investigation/Data Gathering

- **Division of Water Quality:** General orders to identify sites with, and request sampling from, current or historical uses of PFAS chemicals, with a focus on 39 PFAS analytes.
 - Phased approach, beginning with airports with suspected use of AFFF and landfills
- **Division of Drinking Water:** Investigative/technical report orders to test water supplies near identified sites likely to have used PFAS materials

CalEPA Regulatory Actions:

CalRecycle

- **Sustainable Packaging for the State of California Act of 2018 (SB 1335)**
 - Define the types of packaging used at food service facilities serving state agencies
 - Evaluate potential for PFAS used in packaging to migrate into food and soil
 - Research evaluating performance of compostable packaging in an industrial compost environment (UC Davis); potentially test food service packaging and compost for presence of PFAS

CalEPA Regulatory Actions: California Air Resources Board

- Address potential health and environmental impacts of chemical fume suppressants containing PFAS used in the chrome plating operations.
 - Collecting usage, solid waste/water discharge and other information related to the use of PFAS-containing fume suppressants
 - OEHHA – Reviewing PFAS toxicity as part of fume suppressant used in chrome plating operations

CalEPA Regulatory Actions:
Department of Pesticide Regulation

- Investigated whether PFAS used as active or inert ingredient in pesticides

Regulatory Challenges

- Playing catch up; how get ahead of health risk, especially for chemicals that last forever
- Thousands of PFAS chemicals, risk of regrettable substitutes
- Lack of toxicity data
 - Risk assessment is a scientifically rigorous and deliberative process and can result in delays in health protection
 - Drinking water: establishing new standards requires toxicity data and is time consuming; PFAS chemicals have no Public Health Goals or Maximum Contaminant Levels, and only two Notification Levels
 - Prop 65 listings require high standard of evidence; only PFOA and PFOS listed
- Lack information on development, manufacture, transport, use, storage, release, discharge, disposal—past and future
- Multiple media, multiple regulatory frameworks

Characterization to Accelerate Regulatory Action

- Inform decision making
- More quickly identify hazardous chemicals
- Support grouping of PFAS chemicals into classes
- Prevent introduction of regrettable substitutes
- Speed regulatory action and protection of public health and the environment