



**MICHIGAN  
LEAGUE OF  
CONSERVATION  
VOTERS**

**To: Members of the Senate Oversight Committee**  
**From: Nicholas Occhipinti, Michigan League of Conservation Voters**  
**Date: 02.013.2019**  
**Re: Oppose HCR 1**

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On February 19, 1991 in an opinion requested by Governor John Engler. Attorney General Frank Kelley concluded that article 5, section 2 of Michigan's constitution gives the Governor the authority to "**Abolish or eliminate boards and commissions.**" And further, "the legislature has provided in the Executive Organization Act the procedures to be followed in doing so."

The Governor is well within in her constitutional right to abolish these panels, and you are within your constitutional rights to overturn her Order.

### **1. The Panels Infringe on Executive Responsibility**

The Governor must be accountable for implementing the charges, duties, and responsibilities of the executive branch - including those at the Department of Environmental Quality and future Office of Great Lakes and Energy - EGLE.

The DEQ Permit Oversight Panel and process established in 2018 and abolished by the Executive Order 2 removed final decision-making authority from the DEQ and Executive Branch, and ceded that authority to an unelected panel.

### **2. The Buck Stops Here: You Want Executive Accountability**

Last June, the DEQ approved the air-quality permit application for DTE Energy's natural gas-powered plant in East China Township. It was controversial and it made people angry. You want the weight of the Executive Office and DEQ staff science behind these decisions. Not a vote of 2 out of 3 unelected permit panel appointees. "**It wasn't my decision; it was the permit panel.**"

**3. These panels are an extra layer of bureaucratic red tape.** This is not a throwaway talking point; This is directly connected to clean water in Michigan and protecting Michiganders. This is why it is not just about process and separation of powers.

**The extra layer of red tape embodied in the panels absolutely, and directly makes it more difficult to clean Michigan's Drinking Water and protect Michiganders**

I will exemplify exactly how: Yesterday in House Natural Resources I presented on CDC's Interim Guidance for Clinicians Responding to Patient Exposure Concerns on PFAS Chemicals.

You have that fact sheet in front of you. I would like to highlight just two issues.

The panels abolished EO-2 absolutely make it more difficult to deal these two PFAS issues. Here's one example demonstrating exactly how:

SB 1244 of lameduck amended the Part 201 Site Cleanup and Remediation Standards That bill, coupled with the establishment of the panels abolished in this order make it very difficult to set standards related to developmental effects and pregnant women.

- SB 1244 bill first requires the DEQ to demonstrate that single exposure events may result in an adverse effect through a performing a "comprehensive assessment" using "systematic review methodology."
- Then the statute requires a stakeholder process. That makes sense.
- After the stakeholder process the DEQ would begin a rulemaking process - both are required in statute.
- Then, after the rulemaking process, the rule would also have to clear the newly created rule-review committee. This would happen after staff review and on top of stakeholder rulemaking.
- The finalized rules would then also have to clear JCAR.

**Clearly, this is not efficient administration. These panels are an added layer of red tape that make it more difficult for the Governor to clean Michigan's ground and drinking water.**

\*\*\*Throw in 2018's HB 4205 No Stricter Than Federal Bill into the mix and you're starting to seriously hamstring the Executive's ability to implement the law to protect Michiganders. Again, the rulemaking process directly tied clean water and other environmental protections.

At a moment like this when new PFAS sites are being discovered all the time, the Governor needs to be armed with the full authority of the executive branch to protect Michiganders, and our air, land, and water.

**4. Finally, we support panels that give the little guy, the average Michigander more input into the process:**

**Now Senator Stephanie Chang's HB 4200 "Air Pollution Control Commission" session:**  
11 MEMBERS APPOINTED BY THE 4 GOVERNOR BY AND WITH THE ADVICE AND  
CONSENT OF THE SENATE, AND 5 REPRESENT DIVERSE GEOGRAPHIC AREAS OF  
THIS STATE:

(i) TWO INDIVIDUALS REPRESENTING COMMERCE AND INDUSTRY

(ii) TWO INDIVIDUALS REPRESENTING LOCAL UNITS OF GOVERNMENT

(iii) TWO HEALTH PROFESSIONALS WITH EXPERIENCE IN THE TOXICOLOGY OF AIR  
CONTAMINANTS.

(IV)TWO INDIVIDUALS REPRESENTING PRIVATE ENVIRONMENTAL PROTECTION  
ORGANIZATIONS.

(v) THREE INDIVIDUALS REPRESENTING THE GENERAL PUBLIC.



## Introduction

The purpose of this fact sheet is to provide interim guidance to aid physicians and other clinicians with patient consultations on perfluoroalkyl and polyfluoroalkyl substances (PFAS). It highlights what PFAS are, which chemicals fall into this category of substances, identifies health effects associated with exposure to various PFAS, and suggests answers to specific patient questions about potential PFAS exposure.

## Background

### What are PFAS?

PFAS, sometimes known as PFCs, are synthetic chemicals that do not occur naturally in the environment. There are many different types of PFAS such as perfluorocarboxylic acids (e.g., PFOA, sometimes called C8, and PFNA) and perfluorosulfonates (e.g., PFOS and PFHxS). PFAS may be used to keep food from sticking to cookware, to make sofas and carpets resistant to stains, to make clothes and mattresses more waterproof, and to make some food packaging resistant to grease absorption, as well as use in some firefighting materials. Because PFAS help reduce friction, they are also used in a variety of other industries, including aerospace, automotive, building and construction, and electronics.

### Why are PFAS a possible health concern?

According to the U.S. Environmental Protection Agency (EPA), PFAS are considered emerging contaminants. An "emerging contaminant" is a chemical or material that is characterized by a perceived, potential, or real threat to human health or the environment or by a lack of published health standards.

PFAS are extremely persistent in the environment and resistant to typical environmental degradation processes. The pathway for dispersion of these chemicals appears to be long-range atmospheric and oceanic currents transport. Several PFAS and their potential precursors are ubiquitous in a variety of environments. Some long-chain PFAS bioaccumulate in animals and can enter the human food chain.

PFOS and PFOA are two of the most studied PFAS. Exposure to PFOA and PFOS is widespread and global. PFOS and PFOA also persist in the human body and are eliminated slowly. Both PFOS and PFOA can be found in blood, and at much lower levels in urine, breast milk and in umbilical cord blood.

PFOS and PFOA may pose potential adverse effects for human health given their potential toxicity, mobility, and bioaccumulation potential. The likelihood of adverse effects depends on several factors such as amount and concentration of PFAS ingested as well as the time span of exposure.

## Routes of Exposure and Health Effects

### What are the main sources of exposure to PFAS?

For the general population, ingestion of PFAS is considered the major human exposure pathway. The major types of human exposure sources for PFAS include:

- Drinking contaminated water.
- Ingesting food contaminated with PFAS, such as certain types of fish and shellfish.
- Until recently, eating food packaged in materials containing PFAS (e.g., popcorn bags, fast food containers, and pizza boxes). Using PFAS compounds has been largely phased out of food packaging materials.
- Hand-to-mouth transfer from surfaces treated with PFAS-containing stain protectants, such as carpets, which is thought to be most significant for infants and toddlers.

- Workers in industries or activities that manufacture, manipulate or use products containing PFAS may be exposed to higher levels than the general population.

### **What are other low level exposure sources?**

Individuals can also be exposed by breathing air that contains dust contaminated with PFAS (from soil, carpets, upholstery, clothing, etc.), or from certain fabric sprays containing this substance.

Dermal exposure is a minor exposure pathway. Dermal absorption is slow and does not result in significant absorption.

### **What are the potential PFAS exposure risks to fetuses and children?**

Recent research evaluating possible health effects to fetuses from PFAS exposures have shown that developing fetuses can be exposed when PFAS in maternal blood crosses the placenta and reaches umbilical cord blood. It is important to note that different PFAS have varying levels of permeability to the placental barrier.

Newborns can be exposed to PFAS through breast milk. The level of neonatal exposure depends on the duration of breastfeeding. Older children may be exposed to PFAS through food and water, similar to adults. In addition, young children have a higher risk of exposure to PFAS from carpet cleaners and similar products, largely due to time spent lying and crawling on floors in their early years.

### **How long do PFAS remain in the body?**

PFAS with long carbon chains have estimated half-lives ranging from 2-9 years such as:

- PFOA 3 to 4 years
- PFOS 5 to 6 years
- PFHxS 8 to 9 years

### **What are exposure limits for PFAS in drinking water?**

The Environmental Protection Agency (EPA) has published a Lifetime Health Advisory (LTHA) recommending that the concentration of PFOA and PFOS in drinking water, either individually or combined, should not be greater than 70 parts per trillion (0.07 parts per billion). The LTHA concentrations do not represent definitive cut-offs between safe or unsafe conditions, but rather provide a margin of protection for individuals throughout their life from possible adverse health effects. EPA health advisories are non-regulatory recommendations and are not enforceable.

### **What are PFAS levels in the U.S. population?**

Most people in the United States and in other industrialized countries have measurable amounts of PFAS in their blood.

The National Health and Nutrition Examination Survey (NHANES) is a program conducted by the Centers for Disease Control and Prevention (CDC) to assess the health and nutritional status of adults and children in the United States. NHANES (2011–2012) measured the concentration of PFAS in the blood of a representative sample of the U.S. population (12 years of age and older). The average blood levels found were as follows:

- PFOA: 2.1 parts per billion, with 95% of the general population at or below 5.7 parts per billion
- PFOS: 6.3 parts per billion, with 95% of the general population at or below 21.7 parts per billion
- PFHxS: 1.3 parts per billion, with 95% of the general population at or below 5.4 parts per billion

In the last decade, major manufacturers of PFOA and PFOS related products joined EPA in a global stewardship program to phase out production of these agents by 2015. Based on data collected from previous NHANES