

WISCONSIN STATE SENATE

DAVE HANSEN

SENATOR – 30TH DISTRICT

State Capitol P.O. Box 7882 Madison, Wisconsin 53707-7882 Phone: (608) 266-5670

TESTIMONY: AB-842/843

Senate Committee on Natural Resources and Energy

2/7/20

Thank you Chairman Cowles and members of the committee for the opportunity to speak in support of Assembly Bills 772 and 773 which seek to address the growing crisis of PFAS in our water and our environment.

As many of you know, Rep. Nygren and I represent what is, at the moment, the major hot spot for PFAS contamination in the state.

For several years now our constituents in the Town of Peshtigo, the City of Marinette, the City of Peshtigo and Town of Porterfield and surrounding area have been dealing with a growing crisis of PFAS contamination caused by JCI/Tyco's operations in the City of Marinette. At first it was found in groundwater and wells for drinking water, then it was found in the soil, streams, sediment, the Bay, the air and in the sludge that has been spread on farm fields likely for decades. If you find a little you are more than likely to find a lot and in places you don't expect.

It was first found on Tyco's property in 2013 but Tyco did not notify the DNR until around 2017 when it was found in wells off Tyco's property.

At a recent listening session, Rep. Nygren and I heard hundreds of our constituents get up in front of their neighbors and reveal the most intimate details about their health and the health of their children and families. We heard from more constituents than I can count who have been struck with testicular cancer, thyroid disease and thyroid cancer, pregnancy problems, and colon cancer. All diseases that are linked to these toxic compounds.

At the request of and help from our constituents I worked with Senator Miller to draft and introduce the CLEAR Act. I expected there to be concern from across the aisle and I didn't expect much to happen with that bill. So I was surprised, in a good way, to hear from Rep. Nygren asking if I would be willing to work try to find a compromise. And since early October he and I and our staff have been working tirelessly to find a compromise that we could both agree on that will do the most good, not just for our constituents but for people around the state who are knowingly dealing with this contamination or who are drinking this poison and do not even know it yet.

I won't go into all the specific details of what's in the bills before you today. I'll leave that to staff from the DNR. But I do want to point out a few key provisions in the bill:

I believe we have a bill that will protect our constituents and families around the state by directing DNR to set an emergency standard for PFAS and PFOS in groundwater.

Our bill will provide grants to communities who are struggling to address PFAS contamination where a responsible party has not been found.

Our bill also protects taxpayers by allowing DNR to require proof of financial responsibility from polluters to make sure they have the money to pay for cleaning up the damage they've caused.

Our bill also directs DNR to adopt permanent rules for PFAS compounds that DHS recommends health advisory limits for.

And last but not least, our bill creates a pilot program in our area to that requires DHS to provide our constituents with free blood testing so they can decide whether or not they have reason to consult their doctor about possible health issues that could result from having high concentrations of PFAS in their blood. The pilot program also requires DHS to conduct a cancer cluster study to help find out if there is above average rates of cancers that could be a result of the PFAs contamination. In both cases JCI/Tyco will be responsible for reimbursing the state for the cost of these two provisions.

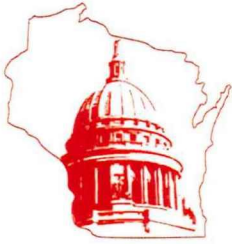
This bill does not include key provisions that our constituents and I believe would provide stronger protections for our water, environment and most importantly human health.

But that is what compromise is all about. And I am proud of the work we have done together and I am proud of the work, time and effort our constituents have put into this effort as well.

Last July 12 sites around the state had been identified as having PFAs contamination. That number is now over 30. And there will be more sites. It's just a matter of time. This compromise that is before you I believe represents our best chance to get ahead of this growing crisis.

In closing, on behalf of our constituents, I want to thank Rep. Nygren again for working with me on this important legislation and Chairman Cowles for giving our bill this hearing today.

Thank you.



John Nygren

WISCONSIN STATE REPRESENTATIVE ★ 89TH ASSEMBLY DISTRICT

Senate Bills 772 and 773 Testimony
State Rep. John Nygren
February 7, 2020

Chairman Cowles and Members of the Senate Committee on Natural Resources and Energy,

Thank you for the opportunity to speak in favor of Senate Bills 772 and 773, legislation Senator Dave Hansen and I have introduced in response to the per-and-polyfluoroalkyl substance (PFAS) contamination in communities we represent in northeast Wisconsin.

PFAS environmental contamination is a complex issue that continues to evolve in numerous areas around the state. Marinette and Peshtigo unfortunately represent the epicenter of this problem, in part due to decades of poorly contained testing and use of aqueous film-forming foam (AFFF) containing PFAS. Elevated concentrations of these chemicals entered the groundwater and have contaminated private drinking wells.

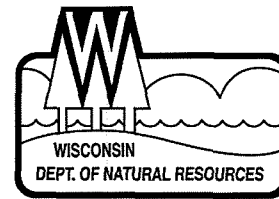
I grew up in Marinette and have spent most of my adult life in the area. The groundwater contamination plume is also within half a mile of where I reside. For me, and several others in the room today, this issue hits close to home, both literally and figuratively.

Unfortunately, this contamination is not unique to northeast Wisconsin. Historic testing, training, and use of AFFF at airports has affected other areas of the state such as Madison, Milwaukee, and Rhinelander. Given the prevalence of PFAS in a wide variety of consumer products that are eventually discarded, this issue will undoubtedly pose challenges for the public, regulators, industry, and policymakers for some time.

Our goal through this legislation is to take a reasonable and meaningful step toward addressing the contamination in northeast Wisconsin and elsewhere, providing funding for remediation activities, prompting research on safely destroying PFAS, providing personnel to state agencies charged with responding to this issue, and more.

Late last year, Sen. Hansen and I agreed to work together on a PFAS bill that helps our constituents and helps the state in its response to this complex issue. SB 772 and SB 773 are a result of those discussions.

There is not one singular bill that is going to resolve all the challenges PFAS pose, but we hope this legislation is a strong building block for the future.



Senate Committee on Natural Resources and Energy

Senate Bill 772 and Senate Bill 773 *PFAS Funding and PFAS Standards and Grant Program* *February 7, 2020*

Good morning Chairman Cowles and members of the Committee. My name is Darsi Foss, and I am Administrator of the Environmental Management Division with the Wisconsin Department of Natural Resources. With me today is DNR Deputy Secretary Beth Bier to assist with this testimony and to answer any questions you may have. We thank you for the opportunity to testify on these two PFAS bills. We are testifying in support of SB 772 and SB 773.

PFAS has become one of the defining environmental issues of the 2020's. At one time, we considered PFAS a specialty chemical that had limited geographic impacts – mostly associated with 3M in the Twin Cities in Minnesota or as a result of Dupont operations in Parkersburg, West Virginia. As recent as three years ago, Wisconsin could point to no known, major sources of PFAS contamination in this state. Fast forward three years. Our understanding of the nature and scope of PFAS contamination in Wisconsin and concerns associated with exposure to PFAS has increased by orders of magnitude.

PFAS are often referred to as forever chemicals in that they persist in the environment and bioaccumulate in mammals, fish, and wildlife. In other words, they do not naturally break down into less harmful substances in the environment. The EPA has concluded that continued exposure to certain types of PFAS above a certain chemical concentration may lead to adverse health effects. According to the EPA, most people in the United States have been exposed to PFAS. PFAS is an international issue, with many countries banning the use of PFAS in products or PFAS foam use at airports. In Wisconsin, elevated levels of PFOA or PFOS – the most studied 8-chain carbon (C8) PFAS compounds – have been found in Wisconsin fishermen, diving ducks, in eaglets along the Wisconsin River, fish in the Mississippi River, and most recently in surface water and fish in Madison's Starkweather Creek and Lake Monona.

In our own backyard, at the University of Wisconsin, resides the National Atmospheric Deposition Program (NADP), an internationally recognized lab that studies deposition of chemical contaminants – like acid rain and mercury – through the air transport pathway. In the last few months, NADP published a national study in which they sampled 30 sites across the U.S. in the spring and summer of 2019 for 36 PFAS compounds in rainwater. All site samples contained at least one type of PFAS; the second highest total level of PFAS in a rainwater sample was from the monitoring station located near Devils Lake State Park, in Wisconsin.

Further, the DNR has identified over 30 contaminated sites in the state where PFAS has impacted the air, land, or water. These sites represent the traditional sources of where PFAS has been found

nationally: commercial airports, military sites (state and federal), refineries, cookware manufacturers, and electroplaters. While our neighbor of Michigan has over 75 identified sites, Michigan has been more systematic in their efforts to identify sources of PFAS contamination. Given Wisconsin's manufacturing history and the general improvements in the science of analyzing environmental samples, we can expect PFAS impacts to soil, groundwater, drinking water, and surface water to be much more common in communities across the state in the coming years.

Before you today are two bills – SB 772 and SB 773 – that represent bipartisan efforts to move Wisconsin forward in a pragmatic manner to provide resources and tools to help businesses, citizens, and communities address PFAS substances that have been discharged or are being discharged to the environment. The highlights of the bills include:

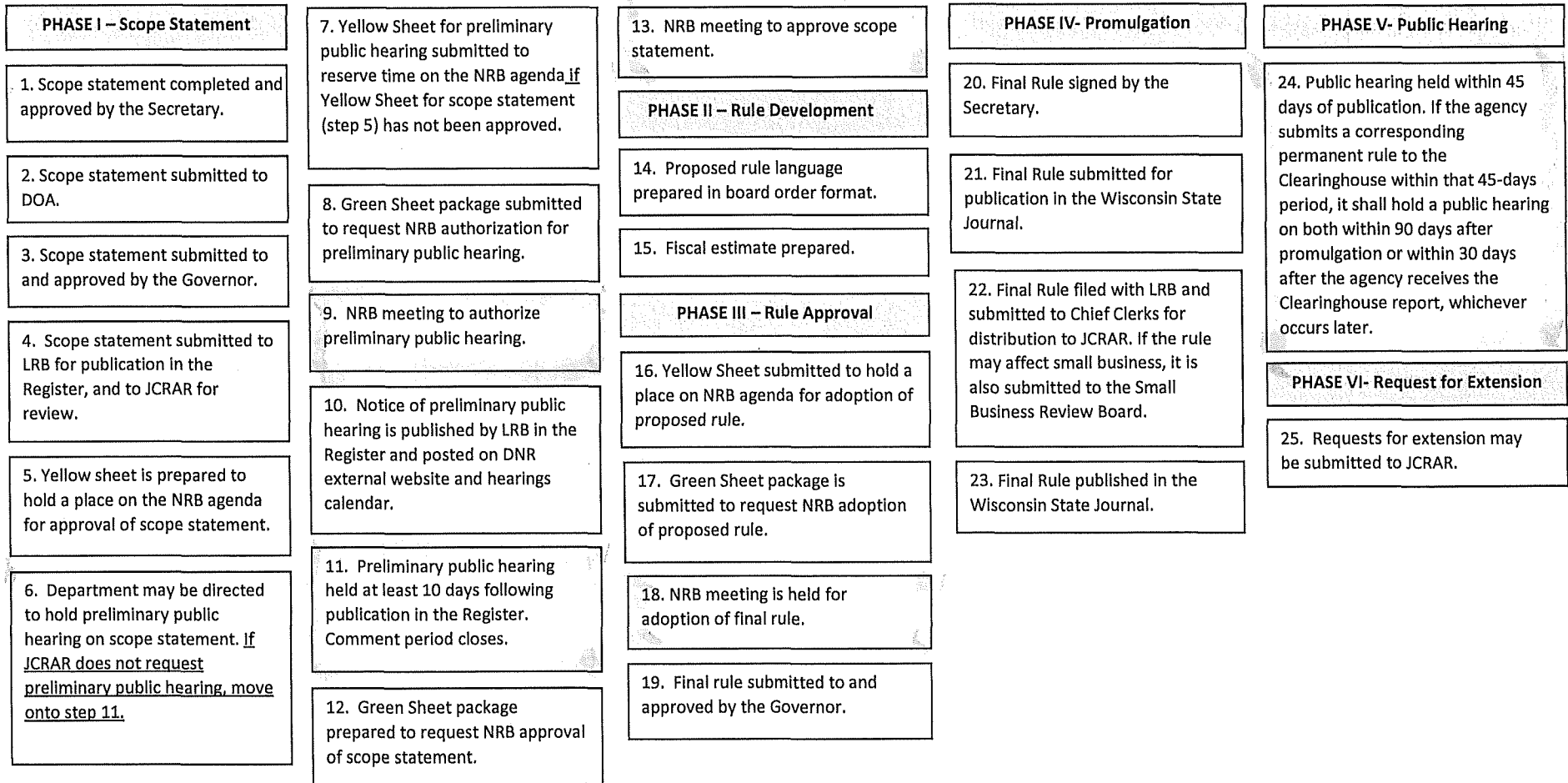
- Directs DNR to establish emergency rules for PFAS substances in groundwater for which the Department of Health Services makes a health-based recommendation. The emergency PFAS groundwater rule would remain in effect for three years. All public input opportunities afforded an emergency rule under existing state statutes would be available to the public. See attached emergency rule flow chart, steps 9, 11, 13, 18 and 24.
- For PFOA and PFOS, the emergency rule groundwater standard would be the DHS recommendation of 20 PPT. This is in line with our neighboring states that are developing groundwater or drinking water standards or guidelines:
 - Minnesota: drinking water guidelines of PFOA (35 ppt) and PFOS (15 ppt) – also have guidelines for PFBS, PFBA, and PFHxS;
 - Illinois: groundwater standard recommendations of PFOA (21 ppt) and PFOS (14) with a limit of PFOA/PFOS of 21 – also establishing standards for PFBS, PFNA and PFHxS;
 - Michigan: drinking and groundwater standards effective this spring of PFOA (8 ppt) and PFOS (16 ppt) – standards will also include PFBS, PFNA, PFHxS, FHPA, PFHxA, and GenX;
- All other rules to establish environmental standards in this bill are non-emergency in nature – drinking water, surface water and air rules are permanent, not emergency.
- Funds to do much-needed research on the background levels of PFAS in our environment, as well as funds to assess the impacts from sites that may be considered point sources for PFAS.
- Funds for DNR to sample municipal water systems throughout the state and other systems that may be at risk.
- A total of \$6 million to assist local governments: \$5 million in grants for local governments to investigate PFAS, supply emergency water and conduct cleanups, including treatment systems for municipal water supplies, in their communities if a responsible party cannot be located or if the local government caused the contamination due to using fire fighting foam or by land application of PFAS. \$1M to sample all municipal systems, like in Michigan.
- Provides staffing resources to DHS and DNR to help businesses, communities, responsible parties, and others to assess PFAS contamination.

Like mercury, acid rain, and PCBs, we have a history of working together in a bipartisan manner to provide our state, citizenry, and businesses with the clarity and resources needed to evaluate these far-reaching contaminants, to minimize the use of PFAS in production to the extent possible and to clean up the legacy issues caused by PFAS discharges to the air, land, and waters of the state.

On behalf of the DNR, we would like to thank you for your time today. We would be happy to answer any questions you may have.

DNR ADMINISTRATIVE RULE PROMULGATION PROCEDURE FOR EMERGENCY RULES

Rev. 10/04/19





State of Wisconsin
Department of Health Services

Tony Evers, Governor
Andrea Palm, Secretary

TO: Members of the Senate Committee on Natural Resources and Energy

FROM: Andrew Hoyer-Booth, Deputy Legislative Director & Roy Irving, Hazard Assessment Section Chief, Bureau of Environmental and Occupational Health, Division of Public Health

DATE: February 7, 2020

RE: 2019 Senate Bill 773, relating to: providing funding related to PFAS programs and positions, granting rule-making authority, and making an appropriation &

2019 Senate Bill 772, relating to: PFAS standards and grant programs, providing blood testing for certain individuals, requiring a cancer cluster study, extending the time limit for emergency rule procedures, providing an exemption from emergency rule procedures, and granting rule-making authority

Good morning, Chairman Cowles and committee members. My name is Andrew Hoyer-Booth and I am the Deputy Legislative Director at the Department of Health Services (DHS). I am joined today by our Hazard Assessment Section Chief in the Division of Public Health's Bureau of Environmental and Occupational Health, Roy Irving. We appreciate the opportunity to provide testimony for information only on Senate Bill (SB) 772 and Senate Bill 773.

SB 773 would authorize two limited-duration project positions to DHS for the purpose of recommending enforcement standards for PFAS substances. SB 772 would require the Department to administer free blood tests for PFAS to residents in a certain geographic area and conduct a cancer cluster study to investigate suspected PFAS-related cancers.

Over the last year, DHS has been working with the Department of Natural Resources (DNR), the Marinette County Health Department, and others to both assess the extent of PFAS contamination in the county and also communicate the current science regarding the human health effects of PFAS. This collaboration has included numerous local listening sessions and presentations which will continue as we learn more about these chemicals.

Additionally, in June of 2019, after extensive research, the Department recommended groundwater standards for two specific PFAS chemicals – PFOA and PFOS – to the DNR. This prior work has driven our approach to and informs our testimony on these bills.

SB 772 outlines the structure for both the blood testing pilot program and the cancer cluster study. The blood testing pilot requires DHS to provide blood testing for PFAS for individuals living on or near sites or facilities contaminated by PFAS or any other toxic compound in the city of Marinette, the town of Peshtigo, the city of Peshtigo, and the town of Porterfield. The inclusion of other toxic compounds is broad and would likely widen the eligible testing area. This could create ambiguity when administering the pilot program. If there is a specific compound or metal of concern, it would create clarity to indicate this specifically.

The bill also enables the DNR to recover the costs of blood testing from parties responsible for contamination and credit those funds to the environmental fund for environmental management. It is unclear whether those funds could be allocated to DHS through existing appropriations to recoup the costs for creating and administering the blood testing pilot program. Adequately resourcing the blood testing program will be imperative to its successful implementation.

We know people residing in areas with high PFAS contaminants want more information about the impact of PFAS on their health, and what that means for the physical and economic health of their community.

Because PFAS are used in many products, most people in the United States have detectable levels PFAS in their blood. Even though blood can be tested, there is not enough research to determine the level of PFAS in blood at which we would expect health problems.

Blood testing is most useful when combined with a scientific investigation or health study utilizing control groups. However, conducting a broader biomonitoring investigation or human health study is a significant scientific endeavor, requiring a heavily resourced team-based approach to be successful. Partnerships between public health agencies, scientific researchers, and others are critical.

While SB 772 requires the Department to conduct a cancer cluster study, it is important to note that evidence linking PFAS to cancer is currently limited and determining if and how PFAS exposure may lead to increased cancer risk will require multiple large studies in exposed populations. We do know that studies in workers and people living in areas with high levels of PFOA or PFOS show that these contaminants may increase cholesterol, damage the liver, cause pregnancy-induced hypertension, increase the risk for thyroid disease, decrease antibody response to vaccines, decrease fertility, and cause small decreases in birth weight.

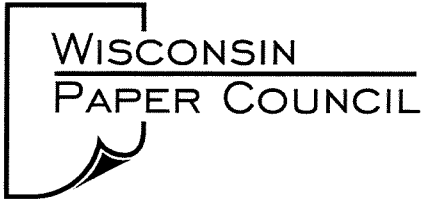
As the state's public health agency, we often receive inquiries from residents, health care providers, and others about concerns of elevated rates of specific cancers. When DHS receives this information, we review the types of cancers that have been reported and assess if there are chemicals in the environment that could pose a risk or contribute to increased occurrence.

SB 772 will result in the documenting and clustering of these inquiries in Marinette, Peshtigo, and Porterfield. However, it will not inform stakeholders with regards to causation of cancer or other illnesses.

We appreciate the bill authors for their continued work to address PFAS in Wisconsin. While there is still a great deal to be done, the legislature has seen a number of bold policies introduced this session to assess the risk of communities across the state for PFAS exposure and allocate funding for remediation.

We are supportive of many of the provisions contained within these two bills and believe that additional clarification on the scope and funding of the blood testing program would help ensure successful implementation.

The Department looks forward to continuing our work on PFAS including developing enforcement recommendations for additional PFAS chemicals and participating on the Governor's PFAS Action Council. We'd be happy to answer any questions from the committee.



**SENATE COMMITTEE ON NATURAL RESOURCES AND ENERGY
February 7, 2020**

TESTIMONY ON SB 772 & SB 773: PFAS standards and related programs and funding

I. INTRODUCTION

The Wisconsin Paper Council (WPC) appreciates the opportunity to testify on Senate Bills 772 and 773 regarding PFAS standards and related programs. Wisconsin is the number one paper-making state in our nation. Our members are proud stewards of the environment. We rely on renewable energy, provide charitable support to our local communities, and strive to be national leaders in sustainability all while providing employment to over 30,000 highly skilled men and women, mostly in rural areas of Wisconsin.

At the outset, it is important to note that WPC does not object to reasonable regulation of perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). There are areas in the state where PFOA and PFOS are found in concentrations high enough to cause concern, and those areas should absolutely be addressed. Our citizens should all have access to clean water, and we hope to work with the legislature and regulators to address those concerns expediently.

However, this bill does not accomplish that. It regulates thousands of compounds with no scientific basis, putting regulation ahead of science and eliminating transparency and opportunities for input from the public. The bill is founded on public fear stirred by misinformation and could severely harm our industry for no measurable environmental improvement.

II. PFAS AND THE PAPER AND PULP INDUSTRY

PFAS is a broad term used to describe an entire family of compounds, all of which share a common type of bond. The most studied PFAS compounds are those containing a chain of eight or more carbon molecules. Specifically, PFOA and PFOS are the focus of many recent studies. These two compounds have been voluntarily phased out of production in the United States but remain present in the environment from past use. In the U.S., testing shows higher levels of PFOA and PFOS around military installations, airports, and training facilities using fire suppression foam.

Our industry has been mislabeled as an early and often contributor to PFAS contamination, including PFOA and PFOS, but that is an absolute misconception. There are thousands of different PFAS compounds, which have been used since the 1940s in many household items such as cookware, waterproof and stain resistant clothing and goods, cosmetics, cleaning products, electronics, packaging, and fire suppression foam. Of the thousands of different PFAS compounds, each has a different scientific formula and a different impact on the environment. PFOA and PFOS are not, and never were, commonly used compounds in the paper-making process. The compounds used today to coat some packaging products are not equivalent to PFOA and PFOS and have been studied and approved by the FDA and its international equivalents. They have been reformulated to avoid bioaccumulation in the body, and to break down more quickly in the environment. However, there is always scientific debate about the safety of any chemical compound, and for every study that supports a safe level, there is another report instilling fear into the public if they regularly use dental floss (which is often coated in a PFAS compound). Regardless, facilities should not be held responsible for contamination they did not cause.

III. THE SCIENCE BEHIND DHS'S RECOMMENDATIONS

This bill will codify standards recommended by the Department of Health Services (DHS) with no input or transparency into how DHS determined those recommendations. We seem to all agree that any standards should be based on sound science. While it can be complex and tedious to discuss the science, it is absolutely necessary to understand how the DHS reached their recommendations, and why other very bright scientific minds may disagree.

As an example, DHS recommended, and this bill will codify, a combined standard for PFOA and PFOS of 20 ppt, with a Preventive Action Limit (PAL),¹ an enforceable limit, of 2 ppt. DHS and the Department of Natural Resources (DNR) assert that they have reviewed thousands of studies to reach that number, but it's important to understand the science that was actually relied upon to reach this conclusion.

With respect to PFOA, for example, DHS first cites the Agency for Toxic Substances and Disease Registry (ATSDR) *draft* report,² a report that has gone through several draft iterations and been incredibly controversial in the scientific community.³ The report sets "minimum risk levels" which it describes as "screening levels...not intended to define clean-up or action levels."⁴ Still, DHS relied on the draft report as guidance, and recommended an enforceable limit lower than even the overly-conservative screening levels.⁵

Next, DHS explained how it performed a literature search, with terms and timelines defined by the agency. The search parameters chosen by DHS returned eight studies which DHS determined to be "critical," including five toxicity studies and three pharmacokinetic studies.⁶

From the five toxicity studies, DHS estimated safe levels equivalent to 25,000 ppt, 30,000 ppt, 250,000 ppt, and 6200 ppt.⁷ DHS also determined additional uncertainty factors ranging from 100 to 1000. But then, DHS apparently ignored those numbers.⁸

Instead, DHS turned to one, single pharmacokinetic study for PFOA.⁹ This study was intended to estimate the impact of PFOA on breastfed infants.¹⁰ The starting point was mice who were given PFOA every day during their pregnancy.¹¹ The lowest dosage with an actual measured impact was the equivalent of 10 million ppt (or 10 ppm).¹² At that dosage, some baby mice had lower bone density in their phalanges or accelerated puberty.¹³ There were no signs of cancer reported. This is the same base study that EPA relied on when determining the 70 ppt advisory level.¹⁴

Using the data from the 10 million ppt dose, the researchers ran a computer simulated mouse model to estimate what additional impact breast feeding might have on the baby mice. Then, the study used the

¹ A PAL is enforceable in the same manner as an enforcement standard. See NR 140.24(5).

² ATSDR Toxicological Profile for Perfluoroalkyls. Accessed at <https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>.

³ Wisconsin Department of Health Services Recommended Public Health Groundwater Quality Standards Scientific Support Documents for Cycle 10 Substances, June 2019, p. 168. Accessed at <https://www.dhs.wisconsin.gov/publications/p02434v.pdf>.

⁴ ATSDR, Appendix A.

⁵ Note that the ATSDR report was published for comment. It is a very in-depth scientific document, but the federal agency still gives the public access to understand and provide input on the process and the science, a practice our state agency does not follow.

⁶ DHS Support Document for Cycle 10, p. 165.

⁷ *Id.* at 166. Estimates were converted from mg/kg-day based on Wis. Stat. § 160.13(2)(c) which requires DHS to consider 1 liter/10 kg-day of intake.

⁸ *Id.*

⁹ *Id.* at 169

¹⁰ Kieskamp KK, Worley RR, McLanahan ED, Verner MA. Incorporation of fetal and child PFOA dosimetry in the derivation of health-based toxicity values. *Environ Int.* 2018. Accessed at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6234970/>.

¹¹ *Id.*

¹² *Id.*, Fig. 1. The dosage was converted from mg/kg-day based on Wis. Stat. § 160.13(2)(c).

¹³ *Id.*

¹⁴ *Id.*

output from that computer model as input in another computer model – a human simulation – to estimate a human equivalent dosage.¹⁵

The researchers ran 24,000 different human simulations to account for all of the relevant factors and to account for inter-individual variability, or the difference in humans, and uncertainty.¹⁶ The study then proposed acceptable human dosages depending on the different factors.

DHS chose the dosage associated with 12-months of breastfeeding, which was 5,400 ppt.¹⁷ It's important to note that the statutes require DHS to make a recommendation based on a 10kg (22 pound) person drinking one liter of contaminated water a day where that water is the *only* source of the contaminant.¹⁸ That statutory requirement means two things: 1) an average 165 pound person is assumed to drink 7.5 liters, or roughly 2 gallons of untreated water every day for life, and 2) DHS cannot consider breastfeeding as an additional source of the contaminant. In any event, DHS again did this analysis with no transparency, so there was no ability for the public to question or challenge the method. According to the study, at the dose chosen by DHS, 5,400 ppt, even the most vulnerable babies would be safe after 12 months of breastfeeding if the mother drinks nearly two gallons of water contaminated at 5400 ppt every day for her entire life. That is a very conservative standard.

However, even though the study had already accounted for uncertainty and inter-species variability, DHS chose to divide that dose by 300 to account for further uncertainty, which resulted in a recommended standard of 18 ppt.¹⁹ DHS then apparently rounded up to 20 ppt. DHS also unilaterally determined the substance was oncogenic, despite EPA's finding that any risk of cancer was already controlled when setting limits for potential developmental impacts.²⁰ That determination led to an enforceable PAL of 10%, or 2ppt.

To summarize the PFOA science relied upon by DHS, the lowest actual measured impact on baby mice was at 10 million ppt, but through simulations and added uncertainty factors, DHS proposed an enforceable limit of 2 ppt. Several decisions were made along the way by DHS, any of which could have drastically changed the recommendations.

IV. CONCERNS WITH AVOIDING RULEMAKING FOR PFAS STANDARDS

This bill also requires DNR to short-circuit the rulemaking process by passing emergency rules within seven months establishing DHS's recommendation as a standard. By doing so, the bill accepts the recommendation from DHS as the final word on the science. There has been no opportunity to comment on or discuss the science relied upon by DHS in setting these recommendations, and by mandating emergency rules, the bill precludes anyone outside of that particular state agency from providing any input going forward.

The scientists at DHS are certainly highly-skilled and capable, but reasonable scientific minds can disagree on the value of studies, which is exactly why research is peer reviewed, why research like the ATSDR report cited by DHS are published for comment, and why EPA and other federal agencies take input when setting regulatory limits. Disagreement on sound science is further illustrated by the range of similar standards in other countries and states. For example, Canada's standards, are 200 ppt for PFOA and 600 ppt for PFOS. Australia's are 560 ppt and 70 ppt, respectively.²¹ This legislation would bypass

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ DHS Support Document for Cycle 10, p. 169.

¹⁸ Wis. Stats. § 160.13(2)(c).

¹⁹ DHS Support Document for Cycle 10, p. 169.

²⁰ EPA Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA), May 2016. Accessed at https://www.epa.gov/sites/production/files/2016-05/documents/pfoa_health_advisory_final-plain.pdf

²¹ See <https://pfas-1.itrcweb.org/fact-sheets/> for a full list.

that important opportunity for scientific review, and for citizens to see and opine on decision made by our state government.

V. TECHNICAL AND ECONOMIC FEASIBILITY CONCERNS

The water-related components of the bill are already cost-prohibitive. As noted in the attached testimony from the Packaging Corporation of America, end-of-pipe control costs for their facility in Tomahawk is estimated to cost between \$104-224 million, not including testing, monitoring, and compliance demonstration. But layered on top are air monitoring and emissions requirements that cannot technically be achieved. The technology to test and control for thousands of PFAS compounds in air emissions and a very small level simply does not exist.

Additionally, the bill could severely reduce use of recycled pulp. Residual PFAS compounds can easily be found in recycled materials. Extracting those compounds, particularly when levels fluctuate, is too difficult to accomplish cost effectively. By making paper manufacturers liable for compounds they have not intentionally added to their process, we foreclose the opportunity to rely on recycled material and take a huge step backwards on our path toward sustainability.

VI. THE ACTION FUND AND “RESPONSIBLE PARTIES”

This bill also creates an “action fund” that will encourage sue-and-settle techniques and harm the reputations as well as the viability of Wisconsin job creators. It is a cost-shifting mechanism once again aimed at making responsible corporate citizens clean up contamination caused by firefighting foam, not by their manufacturing processes.

Moreover, the bill’s definition of “Responsible Party” for the contamination is so broad it makes anyone who has ever thrown away Gore-Tex clothing or sprayed Scotch Guard potentially liable for the cost of remediating the environment. Funds like the one proposed, which encourage litigation and use fear of reputational harm to leverage settlements from even responsible corporate citizens, invite corruption and abuse.

An “action fund” does not solve the problems faced by citizens in hot spot areas. It is simply a way for government to force private business to pay for cleanup of unrelated contamination by setting standards they cannot possibly comply with, and then suing them for not complying with those impossible standards.

VII. CONCLUSION

In Wisconsin, there are hotspots of PFOA and PFOS, including Marinette county which we’ve heard so much about. As a state, we need to prioritize ensuring that those citizens are no longer exposed to harmful levels of those compounds. But this bill does not prescribe effective and efficient treatment and cleanup of those areas. Instead, it mandates state-wide standards, forcing our members to pay for cleaning up compounds left over from firefighting foam.

Our industry is concerned about the very real and very serious impact this bill will have on Wisconsin’s economy, one that is proudly based on agriculture and manufacturing. There are better ways to address areas of contamination; a state-wide standard that chokes the economy for no environmental gain is not it. WPC does not support this bill but looks forward to working with the legislature on a fast and effective solution to the concerning hot spot areas in our state.

Assembly Committee on Environment



Testimony on Assembly Bill 843: PFAS Standards and Grand Programs

Chair Kitchens, Vice-Chair Oldenburg and committee members, thank you for the opportunity to provide testimony on Assembly Bill 843.

My name is Kristy Neumann, Environmental Manager at Packaging Corporation of America's mill in Tomahawk, WI. Our mill, one century old this year, directly employs 420 people, and is the largest manufacturing employer in Lincoln County, as well as the largest employer in Tomahawk. Our paper mill, due to the employment multiplier effect, provides over 800 indirect jobs in north central Wisconsin.

The Tomahawk Mill manufactures approximately 550,000 tons/yr of unbleached corrugating medium using a mixture of virgin hardwood fiber and recycled cardboard fiber. Approximately 30-35% of our fiber supply is derived from recycled cardboard. We do not use PFOS nor PFOA in our papermaking process.

We have grave concerns with any effort by the State of Wisconsin to issue emergency rules implementing "one-size-fits-all" PFOA/PFOS water quality standards based on Department of Health Services (DHS) recommendations that have not been afforded adequate scientific review or public comment by the regulated community. In addition, we are concerned with the issuance of any other pending PFAS-related standards under contemplation by DHS.

Being that PFAS compounds are ubiquitous, it is not beyond reason that PFOA/PFOS might be detected at parts-per-trillion levels in our mill's wastewater treatment plant as a result of 'pass through' associated with processing nearly 450,000,000 pounds of recyclable cardboard each year. A November 7, 2013 report issued by the consulting firm HDR titled *Treatment Technology Review and Assessment* estimates the cost of the exotic wastewater treatment technologies required to remove trace concentrations of PFOA/PFOS. Based on that report, end-of-pipe control costs at our Tomahawk mill are estimated to range from \$104 - \$224 million (2019\$) and, despite that investment, the controls may not reliably achieve compliance. The compelling societal benefit of cardboard recycling is placed in tension with the perceived health risk associated with trace discharges of PFOA/PFOS.

As I stated earlier, the Tomahawk Mill manufactures corrugating medium - a commodity product. In a commodity business, additional manufacturing costs cannot readily be passed along to customers via increased pricing. Businesses must make strategic, pragmatic capital investment decisions based on the performance and competitiveness of its facilities. If PCA can produce its commodity product at a sister facility in a lower cost state, the facility in the higher cost state will have a harder time securing future capital investment. If the cost of production in one state is too high, the company will shift production to a lower cost state. Economics dictate that capital is allocated in a manner that achieves the best return on investment. Since PCA's capability to produce corrugating medium extends to jurisdictions beyond Wisconsin, capital - and production - will logically flow into the most cost-competitive and profitable locations.

Imposing exorbitantly expensive, impossible-to-meet standards on our mill will lock us out of access to capital and our company will preferentially invest in its other seven PCA mills located in Michigan, Georgia, Tennessee, Louisiana, Alabama, Minnesota and Washington, instead of Wisconsin. Wisconsin's legislative and regulatory efforts should be focused on addressing PFOA/PFOS hot spots, rather than issuing broad-brush standards that will result in unintended consequences that will do more social and economic harm than good.



**Wisconsin
Conservation
Voters**

**Testimony on SB 772 & SB 773
Casey Hicks, Northeast Organizer
February 7, 2020**

Good morning. Thank you Chairman Cowles and members of the committee for allowing me to testify today. My name is Casey Hicks. I am the Northeast Organizer for Wisconsin Conservation Voters. We have offices in Madison, Milwaukee, Eau Claire, and Green Bay, where we work with our network of over 40,000 members and supporters to engage voters to protect our environment. We work in close partnership with many local conservation groups around the state.

We would like to thank Senator Hansen and Representative Nygren for introducing SB 772 & SB 773. We encourage you to support them.

There are few things more difficult than facing a medical diagnosis that threatens a loved one's life – your parent, your sibling, your child. Or, maybe it's you.

In Marinette, one of more than 30 communities where we know the toxic class of chemicals called PFAS are lurking in the water, families are fighting an adversary set upon them by outside forces, particularly corporate polluters.

The U.S. Center for Disease Control has advised doctors that PFAS have been linked to increased rates of testicular and kidney cancer. Exposure can also lead to liver lesions, kidney degeneration, and damage to liver function. In addition, a number of large epidemiological studies have related higher maternal exposure to these chemicals to lower birth weight.

There is a solution: the CLEAR Act. The CLEAR Act is the gold standard PFAS solution. Unfortunately, in this political environment, this bill, SB 302, has not even been scheduled for a hearing despite sitting in this very committee since June 2019. For unexplained reasons, the future of the CLEAR Act is uncertain.

Instead, we are left with the proposed legislation, SB 772 & SB 773. Though not ideal, these bills are important. They will help families in Marinette and elsewhere. These two bills do take important first steps.

- **SB 772: Funding for PFAS Research and Testing:** SB 772 would provide funding for municipalities to test their drinking water, blood and cancer cluster studies around areas with known concentrations of PFAS, and research at the UW to destroy

PFAS. These are all things for which we need more information and pilot projects that can be scaled up. We are especially interested in having municipal water systems test for PFAS. Currently, only 90 communities have tested their water for PFAS, those with more than 10,000 people. We have over 11,000 public drinking water systems in our state. We have only scratched the surface about who is potentially at risk.

- **SB 773: Getting Started on Setting PFAS Standards:** SB 773 would require the Department of Natural Resources to establish and enforce emergency rules that set groundwater standards for PFOA and PFOS, the two most well-known of the PFAS class of chemicals. The bill also would establish emergency rules for any other PFAS for which the Department of Health Services submits a recommended groundwater enforcement standard.

There are no state or federal guidelines establishing what levels of these chemicals are acceptable in our drinking water. That is why it is necessary for the state to move forward with a rulemaking process that involves all stakeholders and brings science and data to inform the process. We cannot continue to delay setting statewide health standards to protect all communities from PFAS.

Thank you for your time. We encourage you to support SB 772 & SB 773. We also encourage you to come back next session and pass the CLEAR Act, the comprehensive solution to PFAS.

For more information, contact Jennifer Giegerich at Jennifer@conservationvoters.org or 608-208-1130.



TO: Members, Assembly Committee on Environment
FROM: Scott Manley, Executive Vice President
DATE: February 7, 2020
RE: Opposition to Senate Bill 772 & Senate Bill 773

Wisconsin Manufacturers & Commerce (WMC) appreciates the opportunity to explain our opposition to Senate Bill 772 (SB 772) and its related funding bill, SB 773.

WMC is the state's largest general business association, with roughly 3,800 members in the manufacturing, energy, retail, insurance, financial services, health care, mining, transportation, agriculture, and service sectors of our economy. We represent small, medium, and large employers located throughout the entire state. Since our founding in 1911, WMC's mission has been to make Wisconsin the most competitive state in the nation to do business. This includes opposing legislation that would significantly increase the cost of doing businesses in our state.

At the outset, WMC believes that many years of national and international scientific research justifies establishment of water quality standards for per- and polyfluoroalkyl (PFAS) substances commonly known as PFOA and PFOS. Both of these compounds have undergone rigorous scientific study indicating exposure at high levels is associated with health impacts like high cholesterol. The Wisconsin Department of Natural Resources (DNR) is currently working on rules to establish groundwater, surface water, and drinking water standards for both of these PFAS compounds, and we look forward to working with Department staff to set standards that balance environmental, economic, and public health concerns.

We are greatly concerned that SB 772 and SB 773, while well-intentioned, will significantly increase costs for employers, expose them to unnecessary and unfair litigation, and lead to the imposition of environmental standards that are not based on sound science or a demonstration of need. For the reasons that follow, we respectfully urge you to oppose both of these bills.

Erosion of the Deliberative Process & Public Participation for Groundwater Standards

Wisconsin currently has a well-defined and deliberative process for establishing groundwater standards. The process generally requires our state to follow federal groundwater standards and health advisories to ensure businesses, local governments and homeowners are not unduly burdened with higher costs. However, the law does allow the DNR to set a more stringent or "Wisconsin only" groundwater standard if a very high bar for scientific justification is met by demonstrating why our state requires something more stringent than federal law.

Although this process is not perfect, and many in the regulated community believe the beginning stages of the groundwater setting process is largely opaque and would benefit from additional transparency

and public participation, at least we have a process that provides several opportunities for public participation and legislative oversight.

For example, the DNR began the process for establishing a groundwater standard for PFOA and PFOS in March of 2018. The DNR has stated publicly that it expects to send a final proposed groundwater rule for these two PFAS compounds to the Legislature for review in 2022. The current process, therefore, contemplates spending a total of four years to study and develop PFAS groundwater standards, with several opportunities for public hearings and submittal of input throughout the process.

SB 772 proposes to short-circuit this four-year deliberative process and almost immediately place groundwater standards on the books through mandatory emergency rulemaking after the Department of Health Services (DHS) recommends a groundwater standard. Lost in this approach is the opportunity to spend the time necessary to convene meaningful stakeholder meetings, listen to perspectives outside of government, hear from the regulated community about feasibility and cost concerns, and understand the financial impact on jobs, specific sectors of the economy, and water ratepayers.

Unfortunately, SB 772 would set us down the path of sacrificing public input in favor of a “government knows best” and “quicker is always better” approach to regulating. Once the mandatory emergency rules are in place, the die will be cast, and it is extremely unlikely that DNR would propose a different standard in the permanent rule. Consequently, any stakeholder meetings, public hearings, and opportunities for public input associated with the permanent rule will be rendered meaningless. This is a regrettable approach to setting policy in a state that prides itself in open and transparent government, and legislating based upon the consent of the governed.

Costly and Untenable Air Emission Regulations

In addition to our concerns with the erosion of public input when setting groundwater standards, WMC is greatly concerned by what would be costly and untenable air regulations in SB 772. The bill requires the DNR to regulate *all known PFAS compounds* as hazardous air contaminants, and establish *emission standards for all known PFAS compounds* – a number that currently exceeds 4,000. This approach gives no consideration to the question of whether all 4,000 PFAS chemicals actually present a health hazard. We know that many PFAS compounds have been approved by the FDA as safe for contact with food in packaging, yet this legislation requires the DNR to impose costly new regulations regardless of whether there is an actual health risk associated with a specific PFAS compound.

The regulatory approach in SB 772 is a direct departure from the policy decision the Legislature previously made with respect to hazardous air contaminants. Specifically, Wisconsin’s current policy is to align state hazardous air contaminant regulations with those of the federal government to ensure that Wisconsin employers are not placed at a competitive disadvantage with unfair, costly, and unjustified requirements. However, there is an exception in the law that allows Wisconsin to impose a “state only” regulation on a *case-by-case basis* if the DNR performs a public health risk assessment. In addition to the risk assessment, the DNR must demonstrate that a standard unique to Wisconsin is necessary to protect populations in our state from exposure to an air contaminant at levels that are above *recognized environmental health standards*.

In other words, the ability to enact Wisconsin-only air standards is predicated on a case-by-case showing of need, and a demonstration of actual public health risks based on sound science. Unfortunately, AB 843 completely upends this process grounded in the scientific assessment of health risks, and instead requires the DNR to establish air emission standards for more than 4,000 PFAS compounds regardless of

actual data on risks to public health. To place this number into context, Wisconsin currently has emission standards for 496 hazardous air contaminants. SB 772 would require a roughly tenfold increase in the number of emission standards imposed on Wisconsin employers, placing them at a severe competitive disadvantage from the standpoint of both cost and regulatory complexity.

Worse yet, there is not commercially available technology to reduce or remove PFAS from air emissions for the entire universe of known PFAS compounds, placing Wisconsin businesses in a position of potential noncompliance for the statutorily required emission standards. This would place Wisconsin employers in an untenable compliance position, promote regulatory uncertainty, increase legal exposure, and would create a disincentive to grow or invest in our vital manufacturing sector.

Burdensome and Unnecessary Air Emission Reporting

SB 772 imposes an overly-burdensome air emission reporting requirement on many business and local governments, including small businesses. The proposed reporting mandate is more aggressive than any other under current law in that reporting is triggered by emitting a *single molecule of PFAS*. Business would be required to report emissions to the DNR if any amount of PFAS from a list of more than 4,000 compounds happens to leave their facility by air.

Consider this drastic and draconian approach to an example under current law. The DNR has determined that the appropriate threshold for reporting cyanide emissions is 1,635 pounds per year. Yet SB 772 requires *any* amount of *any* PFAS emissions to be reported, regardless of whether that PFAS compound actually poses a public health threat.

Water provides another example to illustrate the regulatory overkill associated with this bill. Recent test data has shown that almost any source of water in our state has a detectable amount of PFAS compounds – in most cases well below levels that would cause a public health concern. However, many businesses boil water to generate steam for manufacturing processes, to process food, to heat buildings, or to generate electricity. Under SB 772, the simple act of boiling water is very likely trigger PFAS air emission reporting.

Additional Costly Litigation

SB 772 also creates a PFAS litigation trust fund, the purpose of which is to collect money from suing businesses. WMC believes that inviting or incentivizing expensive lawsuits or regulatory “sue and settle” schemes is not an appropriate or effective means to achieve policy goals. The history of the of the federal Superfund program teaches that more litigation leads to unnecessary and avoidable cost increases, along with long-term delays in environmental cleanups. WMC urges lawmakers to consider policies that will foster cooperation and collaboration with responsible parties to address legacy contamination concerns, as opposed to the adversarial process associated with litigation.

Inappropriate & Unchecked Government Authority

If you own a cell phone, a car, nonstick cookware, carpet, water-resistant clothing, or have eaten fast food or takeout pizza, you have possessed PFAS compounds. SB 772 gives the DNR expansive and unchecked authority to require businesses to provide upfront assets as proof of financial responsibility *simply for possessing* PFAS compounds. There are many PFAS compounds in the stream of commerce today that do not pose a public health risk. As such, it’s totally inappropriate to grant the DNR broad discretion to essentially confiscate financial assets for merely possessing lawful products on the belief

that a PFAS discharge could possibly happen in the future. This guilty-until-proven-innocent approach is inconsistent with core principles of due process. We are left to question why businesses are targeted by this provision, while local governments, who are among the largest purveyors of PFAS compounds, are exempted from this portion of the bill.

Conclusion

WMC reiterates our belief in a scientific justification for establishing water quality standards for PFOS and PFOA. The process for doing so is already underway at the DNR, and we will work within that process toward fair and cost-effective rules based on sound science that adequately protect public health. Unfortunately, the regulatory approach proposed in SB 772 and SB 773 grants the DNR much more authority than is needed to address public health concerns related with PFAS, and correspondingly, will impose significant burdens on Wisconsin employers, workers and consumers. For the reasons mentioned above, we respectfully ask that you oppose passage of these bills. We appreciate your thoughtful consideration, and would be happy to answer any questions.

SENT BY ELECTRONIC MAIL

Jeffrey Lamont
N2981 Cooke Lane
Marinette, WI 54143
262-416-8528

Ⓢ C-8 Study - 6 direct links

Wisconsin Senate, Natural Resources Committee

February 7, 2020

RE: I am registering my SUPPORT of SB772 and SB773 and OBJECTING to SB774 and SB775

My name is Jeffrey Lamont. I am a retired hydrogeologist and senior project manager for one of the largest environmental firms in the business. For more than 2 years now I have been involved in educating my fellow concerned friends and neighbors in Marinette, WI about the dangers of PFAS contamination of our drinking water and natural resources. ~~I testified before the Speakers Task Force on Water Quality at the Marinette Campus of UW-GB in August.~~ I have a home in the center of the groundwater contamination plume in Marinette and have had to use bottled water for drinking and cooking for over 2 years.

I have worked with State + Fed agencies as well as industry like Dow, Dupont, Chemours etc. 29 yrs

I would like to thank all our engaged legislators for bringing these very important bills up for this hearing. I would specifically like to thank Senator Hansen and Representative Nygren as well as their staff for the countless hours they have spent listening to our stories and drafting bipartisan legislation to address our concerns.

PFAS - This class of chemicals are particularly toxic to human health and the environment at very small concentrations, especially to our children and grandchildren. To make it worse they are bio-accumulators and take extremely long periods of time to breakdown.

Just when we thought TYCO had finally completed cleanup of the arsenic contamination in the Menominee River (which was a 30 year endeavor) here we are again faced with an even larger problem of PFAS contamination of our drinking water, surface water and air. This has resulted from decades of misuse of PFAS in our environment by local industry. On top of all this TYCO failed to follow Wisconsin law by reporting this contamination when they first found it. Allowing us to drink this poison for almost 4 years before finally reporting it to WDNR. This has endangered our health, degraded our quality of life and contaminated our Natural Resources and we are not the only community facing this crisis. Currently over 30 sites have been identified by the DNR throughout the state.

SB772/SB773

* TYCO knowingly sprayed on the open ground w/ no containment for decades - even through their SOPs + MSDS sheets said not to

These bills (SB772 and SB773) are necessary for Wisconsin to address the growing PFAS contamination across the state. Similar bills have already been introduced and passed throughout the country,

primarily due to EPA's inability to adopt national standards for this class of toxic chemicals. It has been repeatedly demonstrated through multiple studies that EPA Health Advisory Limit of 70 parts per trillion (ppt) is not near as restrictive as it should be to protect human health and the environment. Our own DHS after a 12 plus month exhaustive review of the toxicology of these compounds recommended a standard of 20 ppt for combined concentrations of PFOA and PFOS. Other states have even adopted more stringent standards. (WI manufacturer Assoc) higher # is outside this country

I am requesting you pass this bipartisan legislation to establish a meaningful PFAS standard for Wisconsin. The funding one of these bills would provide is critical to help the communities and citizens impacted with this problem they did not create and can't solve without your help.

I would like to submit my testimony in full support of SB 772 and SB 773 and request you please pass this very important legislation.

SB774/SB775

These bills were just released to the public for review by Senator Cowles office (SB774 and SB775) so I have had limited time for their review. However based on my review and vast experience in this field I have several concerns and questions.

The creation of contaminant management zones and criteria for expanding or contracting these zones is already within the power of the DNR under existing laws. In my opinion the zone concept hampers more than helps by establishing much more criteria to work within for defining, expanding, contracting, etc. Five detections within a mile to expand the area makes no sense in our rural areas where drinking water wells are often several miles apart.

After so many 3 years they can go away (we are already into our third year in Marinette and TYCO still hasn't determine the complete extend of the contamination (it provides too much opportunity for a Responsible Party to delay their work to their benefit). And with all these addition hoops to jump through it only adds 1 new DNR position to an already understaffed DNR.

in fact TYCO in Marinette is currently in the "delay" mode.

Work within these zones once established does not allow for the Emergency Rule for establishing cleanup standards. Without this we will be waiting about 30 months for state standards again bumping us up against arbitrary time lines.

These bills **DO NOT HELP US NOW** by providing any immediate financial relief (unlike SB772/773). Financial assistance will only come after State of Federal MCLs are established (2-3 years).

It appears the bill was designed to help only a few communities like Marinette and the Town of Peshtigo rather than other sites scattered across the state.

Why was the USEPA Health Advisory Limit of 70 ppt used in these bills when the WDHS after an exhaustive 12-14 month review recommended 20 ppt for combined PFOA and PFOS???? Other surrounding states and states in the east have developed even lower standards. The leading toxicologist for the NIH stated her opinion of 1 ppt should be used based on the toxicity of these chemicals.

It is critical for Wisconsin to immediately address the growing PFAS contamination problem across the state (over 30 sites already identified across the state). Similar bills have already been introduced and passed throughout the country, primarily due to EPA's inability to adopt national standards for this class

Hot spot contamination → Over 4000 acres in Marinette Co alone

Issues w/ Emergency Rule Making as it is (too short of time frame) If had already used would have expired 2-3 times

of toxic chemicals over the last 10 plus years. It has been repeatedly demonstrated through multiple studies that EPA Health Advisory Limit of 70 parts per trillion (ppt) is not near as restrictive as it should be to protect human health and the environment.

Unlike SB772/773 (the CLEAR Act) which was developed with significant stakeholder input and finalized under a bipartisan compromise team (Hansen and Nygren), SB774/775 has had no stakeholder or impacted residents input.

Contrary to the press release for SB774/775 I DO NOT see anything in this bill that compliments SB772/773.

I am therefore OBJECTING to Bills SB774/775 and ask you not to support them.

Thank you

Jeffrey Lamont

Doug Oitzinger
2572 S. Circuit Drive
Marinette, WI 54154
715-735-6805

Wisconsin Senate, Committee on Natural Resources and Energy
February 7, 2020

Senate Bills SB 772 and SB 773 Testimony

My name is Doug Oitzinger. I am the former Mayor of the City of Marinette and a past President of the League of Wisconsin Municipalities. Some of you may have heard the testimony I gave before the Speaker's Task Force on Water Quality in August at the Marinette Campus of UW-GB representing the S.O.H₂O group.

First, I would like to thank Chairman Cowles for bringing these Bills forward for a hearing. I know you are in tight legislative time frame and I appreciate that these were worked into your schedule. I would also like to thank our State Senator Dave Hansen and our State Representative John Nygren for the many hours they and their staff worked together to produce this bipartisan legislation. Both of these gentlemen have met with our local group of advocates and did what they promised us they would do. Against all odds, they found a compromise we can embrace because they listened to our input and worked in good faith with each other.

I live in the most PFAS contaminated area in the State of Wisconsin. I live three blocks from the Tyco/Johnson Controls contaminated Fire Technology Center property. While I have municipal drinking water, my neighbors two blocks south of me have PFAS contaminated wells. I am here to testify in favor of Senate Bills 772 and 773.

PFAS is a man made chemical compound. It isn't derived from something that already exists in nature. It isn't like gasoline that's been refined from oil. It isn't like lead that's been dug out of the ground and was once used to make pipes. PFAS is 100% unnatural, and 100% manufactured by industry for use by industry. It's not a consumer product that we buy and add to our food and water directly. When PFAS has been "found" in groundwater or drinking water, or "found" in lakes and rivers, or "found" in a wastewater treatment plant, it was, to put it bluntly, "found" there because industry put it there.

Industry may have put it there unintentionally, they may have put it there unknowingly, they might not even have known that substances they were using to treat their products contained PFAS, but nonetheless, they released it into the environment and into our bodies. Sometimes they knew what they were doing, sometimes they didn't. But PFAS contamination isn't our public utilities' fault, it isn't the DNR's fault, and it isn't the private property owners' fault. It is

purely and simply industry's fault that PFAS came to be introduced into the environment. So it is time for industry to take responsibility for its actions and not stall and delay, or use their influence to stop meaningful safety regulations for PFAS standards in Wisconsin. It is particularly offensive to see these arguments from some industry groups when we in Marinette and Peshtigo have been the victims of the careless and reckless use of PFAS in the environment by a local industry. It has endangered our health, ruined our property values, and degraded our quality of life.

PFAS is a poison. The Wisconsin standard for arsenic in drinking water is 500 times less restrictive than the Department of Health's recommended 20 ppt for PFOA and PFOS. In other words, it is safer to drink small amounts of rat poison than it is to drink far smaller amounts of PFAS. Surely something that poisonous should be regulated statewide to protect all of our communities, all of our residents, all of our children from something so dangerous. I cannot see the business logic of poisoning our population for decades into the future for a temporary gain in profit. These are after all, the "forever chemicals." I cannot see the legislative logic of allowing the continued poisoning of our children as an acceptable response to this crisis.

PFAS is a class of substances that continues to be studied and as new scientific information is presented we are learning that newer generations of these compounds are just as dangerous, in some cases more dangerous, than the much studied PFOA and PFOS. Many states have come to that conclusion and have started to regulate the so called "GenX" compounds like PFHxS, PFHpA, and PFNA. The list of poisonous compounds will grow, and Wisconsin needs a regulatory structure that will allow the science to determine what needs to be regulated and what doesn't. We shouldn't need new legislation every time a new PFAS compound has been proven to be harmful to our environment and our citizens.

The opposition to these bills isn't coming from scientists. It is coming from industry and from some organizations industry has frightened with false information and misrepresentation of the known dangers from PFAS contamination. When you hear that regulations should be "science based" from a paid lobbying organization, you can bet their opposition to the proposed legislation is anything but "science based." Again, allow me to be blunt. These are not "stakeholders" these are the representatives of corporate polluters who have a track record of denial, delay, and litigation.

The Department of Health Services (DHS) reviews and analyzes the most current scientific studies available on PFAS. Trained toxicologists conduct the reviews. The proposed legislation directs the DNR to develop standards based on those recommendations from DHS. Nothing could be more "science based" than the regulatory process detailed in this legislation. Trying to make public health decisions subject to the impact on corporate profits isn't "science based." It's bad science and it's immoral.

I chose not to go into all the dangers that PFAS contamination presents to our residents today because I think you already know this is a real crisis. The fate of these two bills is strictly an issue of industry short-term self interest versus public health and environmental stewardship. The science has already been established, the dangers of PFAS contamination are already known, and the consequences of inaction will be tragic for every part of Wisconsin. This hearing may be the last best hope our state has to do something truly meaningful on PFAS this year. Our particular communities have been waiting since 2017 for standards that can be enforced, how much longer should they wait? We need this now.

To all of you who don't live in Marinette and Peshtigo, what would be your answer if PFAS were found in the drinking water of your friends and family back home and they asked "how did this happen?" What will be your response if a river or lake in your community has a fish advisory issued because PFAS poison was found in the fish? What would be your response to someone who asks "should I have my blood tested for PFAS?" How can any of us feel we've met our civic responsibility if we don't try to prevent cancer and other serious illnesses caused from drinking PFAS contaminated water?

That's why I'm here today, to fulfill my civic duty by asking to you to pass bipartisan legislation to establish meaningful PFAS standards in Wisconsin. To ask you to provide funding to help communities and citizens deal with a problem they didn't create, and can't solve without help. Please pass SB 772 and SB 773. Bipartisan legislation doesn't happen very often in Wisconsin anymore. Please support these bills and demonstrate to our citizens that our elected officials can reach across the political divide and do what's right for Wisconsin when it really matters.

Thank you for your attention. I would be happy to answer any questions you might have.

February 7, 2020

TO:

Chairman Cowles, Senate Committee on Natural Resources and Energy

FROM:

Cindy Boyle
N3028 Woodland Road
Marinette, WI 54143
P: 920-883-5983 | E: cindy@boyledesigngroup.net

RE: Registering in SUPPORT of SB772/SB773 and OBJECTING to SB774/SB775

Dear Chairman Cowles:

I would like to express my gratitude for your bringing these bills forward for a hearing. Recognizing the constraints on the legislative time table, the incorporation of these bills into the calendar is appreciated. I would also like to acknowledge and thank Senator Dave Hansen and Representative John Nygren for their leadership and steadfast determination in collaborating on the development of the historic bipartisan bills SB772/SB773.

My name is Cindy Boyle, I grew up in Marinette County in the Town of Wagner and have spent the last 25 years with my husband and three sons in the Town of Peshtigo; our property directly abuts the City limits of Marinette and is on the Bay of Green Bay. As a child I naively enjoyed the pleasures of a spring fed pond and drinking water from the sand point that lay at its mouth. As an adult I have marveled at the view of the Bay, enjoyed it's restorative gifts and given thanks for our abundant blessings. That reality ended two and half years ago when we first heard the word PFAS.

In that time we have become painfully aware of the dangers related to PFAS exposure, we took up that cross and at great personal, emotional, psychological and financial expense have, in the words of our youngest son, 'focused on nothing but water contamination'. During this enlightenment I became aware that my childhood home was very near farm fields which had contaminated sludge spread on them. One can't help but reflect on the consequences...a mother with kidney cancer, father with a brain tumor, sister with thyroid disease and a full thyroidectomy for myself. For the purposes of today's testimony I won't reflect on the present day because it involves my children...our property is impacted, my fear is all consuming and my rage almost uncontrollable. Our children are my 'forever legacy' and I will NEVER let up, I will NEVER relent against this 'forever chemical'.

This is where each of you comes in... while I don't particularly care for politics, I do greatly value leadership. SB772 and SB773 are a direct result of exceptional leadership, these bills were developed, negotiated, toiled over and born out of bipartisan leadership which reflects the will of the most critical stakeholders... everyday people whose lives have been decimated. In failing to pass these bills you would fail as leaders, I am hopeful that in matters of life and death leadership will prevail over politics.

With all due respect, partisan bills SB774 and SB775 fall far short of accomplishing the impactful measures of SB772/773 and quite simply would in no way be found beneficial to those of us facing this battle. The funding structure with its income requirements for grant/loan recipients, its 70ppt standard, its immensely complicated DNR management structure and its federal funding mechanism for municipalities are just a small example of the numerous shortcomings of SB774 and SB775. Upon closer review it actually generates more cause for concern than any hope for real help. In choosing to believe your good intentions toward tackling PFAS, I ask that Senator Cowles, Senator Petrowski, Representative Kitchens, Mursau, Novak and Krug elect to endorse bipartisan bills SB772 and SB773, such leadership would speak volumes and help restore broken faith to so many of us.

Our community has been decimated by this disaster, yours is quite possibly next. Fear grips countless households and worse yet, a sense of powerlessness looms over their hearts. Every single day we forge on, facing a David and Goliath battle, overpowered in every arena: PR, financial, legal, manpower, special interests, political etc. but I ask of you...what choice do we have?

WE PROTECT US, we do...will YOU?

Please use the position you have found yourself in, the authority that comes with your office, the responsibility that you carry with you to protect all Wisconsinites to full bare.

With respect and a desperate plea.

Cindy Boyle

A handwritten signature in black ink that reads "Cindy Boyle". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

02/07/2020

Good morning,

My name is Craig Koller. I am a 31 year old resident of Wauwatosa who grew up in Marinette, WI, and I am here to provide testimony in favor of passing Senate Bills 772 and 773 by Senator Hansen and co-sponsored by Representative Nygren, and rejecting the corporate friendly partisan bills SB774 and SB775. The contamination of PFAS is a serious and pressing issue that has affected me personally to a great extent and continues to affect my hometown. I would like to tell you my story, and hopefully by the end of it, I can change your minds as to why we need to do everything we can, and take real action now!

I grew up on a small sheep farm in western Wisconsin where my family was the first licensed sheep dairy operation, thanks to legislation of this distinguished body and then Governor Tommy Thompson. When I was 10, my parents sold the family farm and moved east to Marinette, a city of industry. I spent the next 8 years of my life living along the shores of Green Bay; attending public school, swimming and canoeing in the river and bay, and playing multiple varsity sports.

Upon graduation from high school in 2007, I was set to attend UW-Whitewater for my undergraduate degree. I had plans to try out for their men's NCAA soccer team and muddle my way into whatever degree suited me that week. Instead, no more than a month after graduating high school, I was in a doctor's office being diagnosed with testicular cancer. This was a shock to my family, who does not have a history of cancer. Luckily, I had caught the cancer before it had metastasized, so I did not need chemotherapy. Unluckily, they had to remove my left testicle. Recovery was physically tough. Sadly, the financial burden was even tougher, but I had made it. I was cancer free, and I went off to college, having spent all of my money on my health, before I ever even stepped one foot on campus.

Three years of college and dozens of ct-scans, blood tests, ultrasounds, and medical invoices later, I was out of remission. I was home free. I didn't have to think about cancer anymore. I had worked my butt off in my courses, taking 18 credits and sometimes more a semester, as well as working part time driving fork lifts for Menards for a little money on the side. I had even joined the Army ROTC program, but was medically denied because of my cancer history. I studied everything from economics, public policy, geography, and settled on a degree in History and Anthropology.

I was so far ahead in credits that I could have graduated early. Instead, I chose to take my final year abroad. I could have chosen to go anywhere, but instead of the cathedrals of Paris or the beaches of Australia, I chose to go somewhere hard. Somewhere to challenge myself. I settled on India, and went

02/07/2020

abroad my senior year to study the language and culture of a completely different world from that of a Wisconsin farm boy. While in India, I visited the Bodhi Sattva tree, where Buddha gained enlightenment. The hill stations, where British imperialism lived and died. And I was even lucky enough to trek to the base camp of Mount Everest. I was literally on top of the world, and ready to push forward with my life despite what cancer took from me. But it was not to be, there was another bump in my road.

I found another lump.

8 months into my 10 month program in India, I found a small lump on my right testicle, and I knew immediately what it was. Visiting an Indian hospital is quite an experience on a normal day. Having an ultrasound of your manhood surrounded by 20 pregnant Indian women, covered by nothing but a blanket...well you get why I developed a sense of humor about certain things. But what wasn't funny, is that my cancer was back.

Within a day, I was being "emergency evacuated" back home. Within 12 hours of arriving home, I was sitting in a doctor's office being diagnosed with not the same testicular cancer, but a totally different type of testicular. The chances of anyone developing two separate types of testicular cancer is statistically off the charts. My right testicle was cut in half and I went to go through three rounds of the most intense and grueling chemotherapy cocktail the doctors could come up with. I was young, I could take it. Instead of being able to finish my program in India, instead of returning home and graduating with my friends, I was sitting in a hospital chair with a needle in my arm for 8 hours a day, 5 days a week. I graduated on time anyways and still received my degree with honors.

Eighteen months after being diagnosed the second time, I was living in Missoula, Montana attending graduate school in Geography, when the real tragedy struck. In the first week of my second semester, my cancer came back. I was devastated. The chemo didn't work, and I felt like I could never escape this disease. They took the remaining part of my right testicle, and I have been looking over my shoulder ever since.

It was at this time that I became aware of two other students in my graduating who were diagnosed with testicular cancer. There were 75 men in my graduating class, and I knew of three of us who had the same cancer. The national average for testicular cancer is 1 in 270. After speaking out at the DNR listening session in Marinette in early January, a fourth testicular cancer survivor from my class reached out to me to let me know what he went through. 4 in 75. More than 10x the national average.

02/07/2020

It came as no surprise to find out about contamination in the drinking water. One of the most closely linked health outcomes of PFAS contamination is testicular cancer.

But it's not too late to look forward to our future and our children's future. I am here to implore you to pass Senator Hansen's bi-partisan legislation SB772 and SB773 and turn away from corporate friendly partisan bills SB774 and SB775. The comprehensive statewide standards and the funding that Senator Hansen's bills provide, give the DNR the power to determine the extent of PFAS contamination in our communities across the state and allow us to move forward with the cleaning them up.


My wife is over 39 weeks pregnant with our first child. Yes, by the miracle of modern medicine, we have been able to continue my family's name, despite the fact that PFAS took my testicles away. However, I won't let my wife or child anywhere near my family's home in Marinette until we better understand the range and health consequences of exactly how our community is poisoned. Not everyone has moved away though, and if this legislation does not pass, you are condemning them to an uncertain future. A future where unknown chemicals are penetrating their bodies through the water they drink, the food they eat, and the air they breathe.

Johnson Controls/Tyco, reportedly sat on the fact that they were contaminating my hometown, and more people have gotten sick and died because of it. We need a government that is willing to put our health first. I have paid the price, physically, financially, and emotionally. My classmates have paid the price. My hometown community has paid, is paying, and will continue to pay the price for your inaction. Can you look me in the eye and tell me that these bills are enough? If not, you might as well just spit in it.



Madison Metropolitan Sewerage District

1610 Moorland Road • Madison, WI 53713-3398 • P: (608) 222-1201 • F: (608) 299-2129



Committee members, Thank you for allowing me the opportunity to provide testimony today. My name is Martye Griffin, and I am here today on behalf of Madison Metropolitan Sewerage District (the District), where I am the Director of Ecosystem Services. The District has been protecting public health and the environment by safely cleaning water and reclaiming natural resources since 1930. In fact, we are celebrating our 90th anniversary this year. We are responsible for effectively managing wastewater for the people and businesses in our 26 customer communities throughout Dane County. This charge requires the District to manage a wide range of water chemistry concerns, from minute amounts of toxic substances such as mercury and arsenic, to an overabundance of more common chemicals such as phosphorus and chloride. To do so, the District employs a variety of strategies, including source control, industrial pretreatment and pollution prevention, to protect public health and the environment. In developing our control and prevention strategies, the District pursues solutions that optimize environmental, economic and social sustainability.

The District takes customer and community issues very seriously, including recent public concerns regarding the transport, fate and effects of per- and polyfluoroalkyl substances, or PFAS. Wastewater treatment plants are not original sources of PFAS and do not add or have the capability to remove these chemicals during the treatment processes. However, wastewater arriving at the plant contains traces of PFAS from all of us and the choices we make – from our bodies, our cookware, the dust in our homes, the clothing we purchase and wash, even the cosmetics, conditioners and sunscreens and use.

As wastewater arriving at the plant contains traces of PFAS, it is expected that these chemicals will also find their way into biosolids, a beneficial product of the wastewater treatment process. The District's Metrogro program represents an important local and sustainable source of nutrients needed by the local farming community. The 37 million gallons of biosolids that the District reclaims each year are injected into the soil to fertilize some 5,000 acres, reducing the need for incoming shipments and application of synthetic fertilizers.

The impact of PFAS in biosolids and how it relates to the fate and transport of these compounds in the environment is an emerging science and further research is needed regarding PFAS in soil. While some preliminary studies show that biosolids affected by direct industrial discharges of PFAS to wastewater treatment plants may have an effect on the chemicals in soils, recent research indicates that biosolids with no direct industrial discharges, PFOA levels are in the low parts per billion range, same as background levels of PFAS compounds found to be in household dust, human blood, and even national forests.

The current bill draft of SB772 has two major provisions that will negatively impact how the District is managing our biosolids and runs our Metrogro biosolids land application program.

1. Without access to resources, it will be costly to mitigate for PFAS and those costs could be passed on to our rate payers. Under Wis. Stats 281.01(6), metropolitan sewage districts are considered a municipality. Section 12 of the current bill draft outlines a municipal grant program. As the bill defines any person who possesses or controls a PFAS compound to be a “responsible party,” this definition would make the District a responsible party given that PFAS compounds are ubiquitous and that the wastewater arriving at the plant and the biosolids produced contain trace amounts of these compounds. As a responsible party, the grant program would only apply to the District in areas where landspreading of biosolids was done *prior* to the effective date of the bill. The consequence of this is that grants will not be available for any landspreading activity after the effective date. As the District typically land applies on hundreds of fields per year on a rotating basis with short application time periods, there is a high likelihood that many fields will be landspread after the effective date. In this scenario, the District would be considered a responsible party with no ability to access grant resources to act.
2. The availability of recycled biosolids helps the bottom line of our customers as it reduces the need to pay for synthetic fertilizer. Section 13 of the bill gives the Department of Natural Resources (DNR) the authority to require proof of financial responsibility from a “person who possesses or controls” a PFAS substance with no standards. This could apply to any person who owns property on which any PFAS compounds are found. As mentioned earlier, background levels of PFAS in wastewater and biosolids are to be expected due to the ubiquitous nature of these compounds. Requiring proof of financial responsibility with no standards and no link to human health and environmental risk puts a burden on landowners with no scientific basis related to the levels of PFAS and the exposure pathways, which are different for biosolids and soil. In the scenario that the District operates under, we have a long list of landowners that we cooperatively work with to recycle valuable nutrients as fertilizer. Based on the language in Section 13 of this current bill draft, when biosolids containing PFAS are land applied, the landowner would be the entity that now “possesses or controls a PFAS compound.” While the District would be exempt from financial responsibility under the current draft, District customers, who are area farmers and landowners, would not be exempt. The current Metrogro program is a voluntary program. The District does not charge for fertilizer, and farmers are not required to take Metrogro. For the farmers and landowners that the District works with, the obligation to show financial responsibility could discourage them from taking Metrogro, effectively shutting down the District’s land application program and force the District to find alternate means for managing our biosolids.

The District would appreciate the opportunity to discuss these issues further with any committee members and find a way to modify language in the bill to address the challenges I just outlined. Thank you. <https://www.madsewer.org/PFAS>

Impact of PFAS on Human Health
Testimony by Elizabeth J. Neary, MD, MS, FAAP
Senate Committee on Natural Resources and Energy
February 7, 2020

Dear Chairman Cowles and Members of the Committee,

I appear before you today in support of Senate Bills 772 and 773 and in opposition to Senate Bills 774 and 775.

As a pediatrician, I am deeply concerned about the harmful effects of PFAS on the developing organs of the fetus, infant and young child.

Perfluoroalkyl and polyfluoroalkyl substances (PFAS), a group of man-made chemicals, are an emerging public health threat. They are toxic at extremely low levels (parts per trillion). They are highly persistent in the environment and accumulate in humans and remain in the body for long periods of time. PFOA: 2.1 to 10.1 years, PFOS: 3.3 to 27 years and PFHxS (chemical found in fire-fighting foam): 4.7 to 35 years. (Ref 2) There is no way to remove them from the human body. They are bound to proteins and very little is excreted.

Children, infants and the developing fetus are a far greater health risk because they drink more water in proportion to their weight, their brains and organs are developing rapidly, and they have a longer life to accumulate toxin. PFAS is not only found in breastmilk, it is concentrated in breastmilk. This is a very troubling fact. Let's compare PFAS to lead... If a mother ingests drinking water with lead, her breastmilk will have a lower level of lead than that of the water that she drank. Because PFAS bioaccumulates, the level of PFAS in breastmilk will be HIGHER than that of the water that the mother drinks. As opposed to adults who eat a variety of food, infants only consume formula or breastmilk, which if contaminated, is contained in 100% of their diet.

Animal studies show effects on liver, thyroid, and pancreatic function and hormone levels.

According to the ATSDR, studies in humans show these effects:

- Interfere with the body's natural hormones;
- Increase cholesterol levels;
- Affect the immune system; and
- Increase the risk of some cancers.

The C8 Health Study (Ref 4) an early epidemiological study of 69,030 persons \geq 18 years of age, found evidence suggestive of associations of exposure to PFOA to six diseases:

- high cholesterol (hypercholesterolemia),
- ulcerative colitis
- thyroid toxicity
- testicular cancer
- kidney cancer
- preeclampsia and elevated blood pressure during pregnancy. (Ref 2)

C8 Health Study participants had five-times higher PFOA concentrations in blood compared to a representative U.S. population (i.e., NHANES 1999-2000) (Ref 4)

In May 2016, US EPA issued a drinking water advisory for PFOA and PFOS at 70 parts per trillion (ppt), individually or combined. However, many authorities think that this level is too high to protect public health. Since 2016, eight states (MA, NJ, VT, NH, NY, CA, MI, MN) have chosen lower levels based upon new studies and concern for protection of the fetus and young child. NJ has set levels of 14 ppt for PFOA and 13 for PFOS. Minnesota's new guidelines (PFOS 15 ppt, PFHxS 47 ppt, PFOA 27 ppt) are based upon PFAS levels in women of childbearing age, and the placental and breastmilk transfer to their offspring. "Even short exposures during infancy have dramatic impacts on serum levels for many years. In addition, developmental effects are the critical effects anchoring recent risk assessments." (Ref 3)

To truly protect public health, the DNR and Department of Health Services need to be independent decision makers. Wisconsin must be given freedom to be more flexible in creating standards based upon current and evolving science

You may hear comments that criticize the science or diminish the results from animal studies. This is a tactic that was developed by tobacco companies to discredit studies that showed that cigarettes were linked to cancer. (Ref 5) Scientific studies in animals (mice, rats, etc) are the basis for our understanding of many of the advances in medicine from pharmaceutical products to understanding metabolism of cholesterol to unlocking answers to preventing diseases. To discredit animal studies is disingenuous. We cannot ethically subject humans to exposure to toxic chemicals, so animal models are important. We use epidemiology to study human effects from toxic chemicals. A large number of animal studies and epidemiologic studies have demonstrated the harmful effects of PFAS. Often, we cannot absolutely prove cause and effect. However, absence of scientific certainty about a risk should not bar the taking of precautionary measures in the face of possible irreversible harm. This is absolutely critical as we consider the effect of PFAS on the vulnerable fetus, infant and child. It is shameful that we have allowed this chemical to be so pervasive and it is now time to protect the most vulnerable.

- 1) Agency for Toxic Substances and Disease Registry (ATSDR)
https://www.atsdr.cdc.gov/pfas/docs/pfas_fact_sheet.pdf
- 2) An Overview of the Science and Guidance for Clinicians on Per- and Polyfluoroalkyl Substances (PFAS), ATSDR publication
https://www.atsdr.cdc.gov/pfas/docs/ATSDR_PFAS_ClinicalGuidance_12202019.pdf
- 3) Goeden, H.M., Greene, C.W. & Jacobus, J.A. A transgenerational toxicokinetic model and its use in derivation of Minnesota PFOA water guidance. *J Expo Sci Environ Epidemiol* **29**, 183–195 (2019). <https://doi.org/10.1038/s41370-018-0110-5>
- 4) The C8 Health Study was a series of exposure and health studies in the Mid-Ohio Valley communities, which had been potentially affected by the releases of PFOA (or C8) emitted since the 1950s from the Washington Works plant in Parkersburg, West Virginia. C8 signifies that the study looked at selected long chain PFAS. <http://www.c8sciencepanel.org/index.html>
- 5) Michaels, David. (2020). *The Triumph of Doubt*. Oxford University Press, USA.

Thanks for the opportunity to comment on the 4 pieces of proposed legislation SB772, SB773, SB774 & SB 775 – thanks to all of the legislators who have put forward bills for their efforts to address this problem and recognizing we need a solution, pronto... Here are my thoughts.

Sequencing – The legislature needs to get the sequencing right. Do not provide an overly prescriptive solution.

Contamination investigations require time and \$\$– Do not assume we know more than we do. WI needs to investigate both historic and emerging sources of PFAS. Currently, we don't event fully understand the toxicity on the handful of PFAS discussed in 772/773. But as we've heard, we know PFAS are linked to many health problems. EPA currently discourages production of two of the most well-understood PFAS in the USA but does nothing about their importation, so PFOS and PFOA will still create disposal problems. EPA allows over 600 unique, untested PFAS in commercial production. Add those to over 4000 more recognized formulations and we have a long way to go in our understanding. We should not impose time and cost constraints on the solution, but we need to act as quickly once problems are identified to mitigate problems and implement solutions.

Contamination investigations require a strategy - a onetime shotgun approach will not work. Given our experiences with mercury, acid rain, e coli, nitrates and atrazine, we know certain conditions will promote greater mobility and toxicity. We need a well-orchestrated, multi-contaminant, multi-media approach.

Don't create winners and losers – don't take funds from a working program to address PFAS. Funds provided for water infrastructure in communities before the PFAS crisis was created are still needed for that purpose.

Don't ignore potential sources - leachate issues and investigation upstream from POTWs into the industrial pretreatment program are both necessary. Other states have successfully used these to address problem sources.

Disposal needs greater consideration. Madison sent their AFFF to WM in Oregon for disposal. Under Superfund law, Madison FD now must accept future liability for any PFAS contamination in OR at WM. Clean Sweep programs could be forced to assume future liability if the disposal issue is not well thought out.

PFAS are slippery. PFAS move quickly and don't get bound up when they move that's why they contaminate groundwater so quickly and extensively. So, what makes anyone think landfilling them by using solidification technologies will succeed as a long-term solution? PFAS chemistry predetermines this will eventually fail and become a problem requiring the responsible party to assume liability. Burying PFAS is not the answer.

PFAS are extremely durable. It's a molecule designed to withstand high temperatures for use in firefighting. Its molecular bonding properties make it virtually indestructible. So, who thinks putting PFAS into an incinerator will destroy it? Burning PFAS is not the answer.

PFAS management requires dismantling the molecules to render them non-toxic. Where have we seen this technology developed? Chemical warfare management – international treaties require 99.9999% destruction and the inability to reassemble the outputs back into chemical warfare agents. The party responsible for promoting widespread use of AFFF, our DOD, has been developing the technology to address chemical warfare agents for years. It's time their research provides a commercially available, affordable and scalable solution for managing PFAS. WI should store their PFAS problems until disposal technologies ripen to the point where they do not create potential liabilities or pollution problems for the communities where burn and bury takes place.

Thanks for the oppoty to comment, I'll take any questions you may have.

DESTRUCTION TECHNOLOGIES FOR POLYCHLORINATED BIPHENYLS (PCBs)

BY M.S.M. Mujeebur Rahuman, Luigi Pistone §, Ferruccio Trifirò¶ and Stanislav Miertus*

International Centre for Science and High Technology
United Nations Industrial Development Organization (ICS-UNIDO)
Pure and Applied Chemistry
Padriciano 99, 34012 Trieste, Italy.
Phone: +39-040-922 8110-922 8114-922 811; Fax: +39-040-9228115
E-mail: Stanislav.Miertus@ics.trieste.it, Mujeebur.Rahuman@ics.trieste.it
§ c/o SiiRTEC NIGI S.p.A.
Via Algardi, 2 - 20148 - Milan, Italy
Tel.: + 39-02-39223 209; Fax: + 39-02-39223 010
E-mail: lpistone@sini.it, luigipistone@yahoo.com
¶ *University of Bologna, Italy.*
E-mail: trifiro@ms.fci.unibo.it

9.1. Super Critical Oxidation

ProChemTech determined that the process of super critical oxidation appeared to offer the best means of treating organic contaminated wastewater. Supercritical water oxidation (SCWO) is a high temperature and pressure technology that uses the solubility properties of supercritical water in the destruction of organic compounds and toxic wastes. Under supercritical conditions, with the addition of a proper oxidant (which may be either oxygen or hydrogen peroxide or a combination of both, or nitrate or any other oxidant) carbon is converted to carbon dioxide; hydrogen to water; chlorine atoms derived from chlorinated organic compounds to chloride ions; nitro-compounds to nitrates; sulfur to sulfates; and phosphorus to phosphate [10].

The unique properties of super critical water are the key to the operation of this process. Gases including oxygen and organic substances are completely soluble in super critical water, whereas inorganic salts exhibit greatly reduced solubility under process conditions. Organic substances dissolve in the super critical water, and oxygen and the organic substances are brought into intimate single-phase contact at temperatures and molecular densities that allow the conventional oxidation reactions to proceed rapidly to completion.

Process residues are contained and consist of water, gas and solids if the waste contains inorganic salts or organics with halogens, sulfur or phosphorous. The effluent gases contain no oxides of nitrogen or acid gases such as hydrogen chloride or sulfur oxide. The process generates no particulates and less than 10 ppm carbon monoxide has been measured [10].

As the equipment did not exist to apply this technology at the flow rate needed, *ProChemTech* proceeded to design and construct a prototype super critical oxidation unit. Design parameters set were operation in the pressure range of 200 to 270 atmospheres at temperatures between 370 and 480 °C, with the capability to process up to 24 kg/h of wastewater containing 15 to 25% mixed organic pollutants.

The prototype unit was installed and brought on-line in July, 1993. Following almost 100 hours of operation, the following results were obtained on the system influent and effluent by the customer's laboratory using GC/MS procedures, results as mg/l. The pollutants present in the untreated wastewater are totally destroyed in

the super critical oxidation process, products of the destruction are carbon dioxide, water, and a limited amount of mineral acids based on the halogenated solvent content of the wastewater.

The National Research Council has pointed out that this system must be constructed of materials capable of resisting corrosion caused by halogen ions. They also note that the precipitation of salts may cause plugging problems in the system [19, 20].

DREs of greater than 99% have been reported for the treatment of numerous hazardous organic compounds using SCWO. For example, bench scale tests have shown DREs of 99.999% or higher for chlorinated solvents, PCBs and pesticides, and >99.99994% for dioxin contaminated MEK (Methyl Ethyl Ketone) [20]. No data have yet been found that allow the destruction efficiencies of this technology to be determined. i.e., the concentrations of undestroyed chemicals in process residues have not been reported for process residues other than gaseous emissions. Similarly, no data were presented describing the concentrations in all process residues of dioxins and other POPs potentially generated.

Environment Australia (1997) notes that end products such as ash and brine require disposal. The Agency also finds that the technology is limited to the treatment of waste that is liquid or has a particle size less than 200 μm , and it is most applicable to wastes with an organic content of less than 20% [21]. SCWO has been applied to a broad range of materials, e.g., aqueous waste streams, sludges, contaminated soils, industrial organic chemicals, plastics, synthetics, paints and allied products, industrial organics, agricultural chemicals, explosives, petroleum and coal products, and rubber and plastic products. It is applicable to the treatment of a range of contaminants including acrylonitrile wastewater, cyanide wastewater, pesticide wastewater, PCBs, halogenated aliphatics and aromatics, aromatic hydrocarbons, MEK and organic nitrogen compounds [10].

Due to the high pressures / relatively high temperatures to be reached to obtain the supercritical properties an interesting technological solution has been proposed, that is the deep-well reactor. A demonstration unit, consisting of a 25 cm diameter stainless steel subsurface tubular reactor reaching a depth of approximately 1600 m was demonstrated in Colorado, showing insignificant corrosion. It is claimed that, as long as relatively high hydrocarbon content is already in the wastewater feed, no energy input is required to heat up the feed to supercritical temperature. It is therefore in some way reliable the claim of very low operating costs, \$120 to \$140 per dry ton assuming some pretreatment and certain operating conditions [10].

General Atomics Electromagnetic Systems Group

25 October 2019

Destruction of PFAS Material using the ISCWO Process

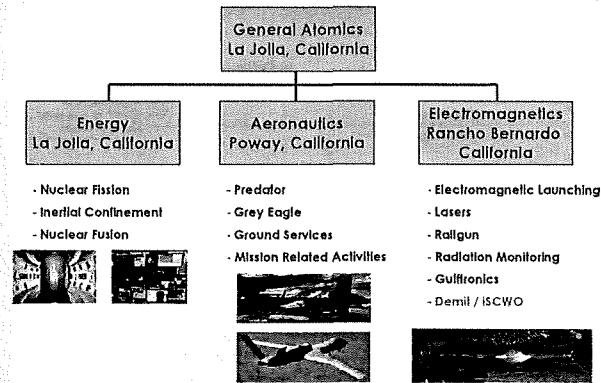


John Follin, GA EMS Director of Strategic Development, Supercritical Water Oxidation



1

General Atomics Organization



3

Why Supercritical Water Oxidation (SCWO) for GA?

Our past projects involve thermal treatment of energetic waste

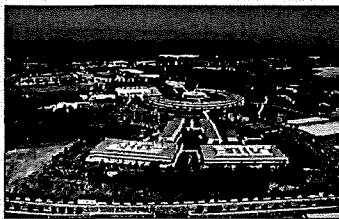
- We have built rotary kiln incinerators – they work (have high throughput) but have permitting, siting and logistics issues
- We have worked with different liquid chemical processing systems but they too have issues (waste water)
- Tested Molten Salt systems – process efficiency issues
- We have built and tested plasma arc systems but we encountered limited waste feed ability, short torch (electrode) life, material buildup in off-gas treatment, and high electrical costs
- In the late-1990's GA selected SCWO as a means for thermal treatment based on tests and customer requirements – this has worked well for GA



5

General Atomics

LOCATION: San Diego, California
 FOUNDED: 1955
 STATUS: Privately held corporation



John Follin
 Director
 Strategic Development / Business Development
 Demilitarization and Chemical Waste Destruction

GA is a recognized world leader in high-technology research, design, and production for industry and government in the U.S. and overseas



2

Demilitarization and Chemical Waste Destruction Projects

Demilitarization

- Technology implementation for demilitarization of a variety of conventional munitions
- Activities with Military and Commercial entities
- Blue Grass Chemical-Agent Destruction Pilot Plant (BGCAPP) operations for the destruction of chemical warfare agents using GA SCWO technology



Waste Destruction

- Large variety of applications of supercritical water oxidation (SCWO) for commercial uses
- Considerable growth for chemical waste destruction market for ISCWO



4

GA's SCWO Historical Experience – No More R&D

- 30 years and \$250M of SCWO development
- Sold over 24 units with more than 50,000 hours of steady state operations – this year alone multiple sales pending
- GA's systems have processed a wide range of waste feeds including actual chemical agents, energetics, energetic hydrolyses and a large variety of industrial waste chemicals
- Expertise in salt transport to avoid salt buildup in our reactors
- Experience in designing preprocessing systems including conveyors, grinders, and slurry systems
- Our ISCWO product line is classified as EAR99 (Export Use)
- Up to 2012 – Limited Government activity and sales
- 2012 – 2014 – Started Commercial Sales and continued Military
- 2015 – Now – Commercial and Military/Government sales



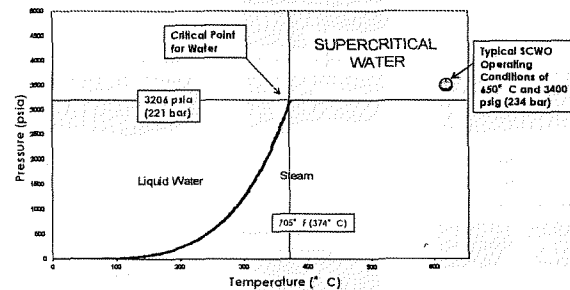
6

Use of SCWO/iSCWO in an Industrial Environment

iSCWO is excellent for the destruction of:

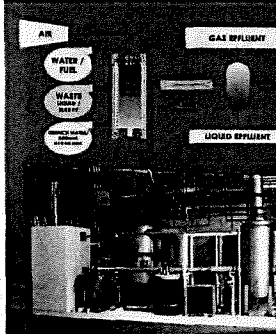
- Expired or obsolete pesticides, fertilizers, and fungicides
- Contaminated water (waste water cleanup)
- Expired or obsolete paints
- Petroleum, oils, lubricants and/or petrochemical waste streams
- Polychlorinated biphenyls (PCBs)
- Organic cleaning solutions and antifreeze
- Sewage sludge/animal waste products
- Pharmaceutical waste
- Fire retardant materials
- Plastic waste
- Energetic material (explosives and propellants)
- Materials not suitable for normal transportation or disposal

What is Supercritical Water?



Supercritical water is water that is heated and pressurized above its thermodynamic critical point of 374° C and 221 bar. We operate at 650° C and 234 Bar to ensure complete oxidation of wastes.

iSCWO: Technical and Cost Advantages



- Perfect for onsite waste destruction
- Cost competitive with incineration or any other oxidation process at the site
- No airborne particulates
- No afterburner or complex secondary processing equipment
- Clean water by-product requires little or no post-treatment prior to discharge to POTW
- Air supply for oxidant instead of LOX
- Simple design - easily maintainable
- Waste stream testing in San Diego

Rapid, complete organic destruction with no pollution abatement system

Some examples of iSCWO Applications



Ground water cleanup



Sewage Concentrate destruction



Pesticide destruction



Petroleum Waste Destruction



Illegal Chemical Destruction



Clean Contaminated Soils



River water cleanup

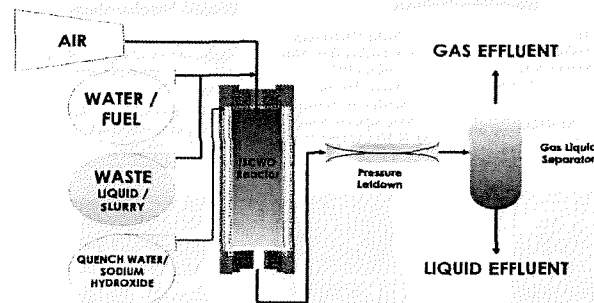


Chemical Process Waste Treatment

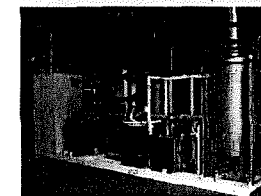


Chemical Waste Destruction

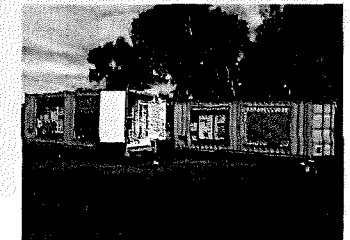
iSCWO Process Flow



What we offer - Modular iSCWO Systems



One 3 GPM (11.3 LPM) iSCWO skid



Two 3 GPM transportable iSCWO systems

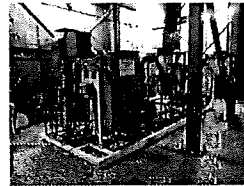
Modular design allows for rapid setup and start of process operations

ISCWO Release Streams Meet Environmental Requirements

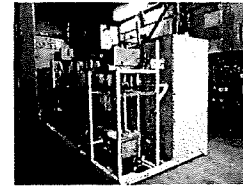


Waste Feed	Gas Release	Liquid Release
Hydro Carbon	O ₂ CO ₂ Nitrogen Water vapor Organic free	Organic-free water Neutral pH
Halogens		Some salts (depending on chemical feed)
Metals		Metallic oxides particles (depending on chemical feed)
-iles, -ates O ₂ O ₃		Available oxygen can reduce the amount of cfm needed by air compressor
All liquid Releases Designed for Discharge Directly to a Public Owned Treatment Works (POTW)		

GA iSCWO Demonstration System – No R&D



ISCWO System used for different chemical waste treatment tests

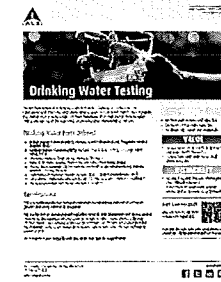
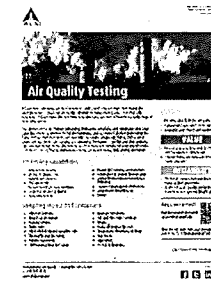


Dedicated ISCWO Test Facility

No R&D – Just confirmatory tests for both process and environmental regulatory permits

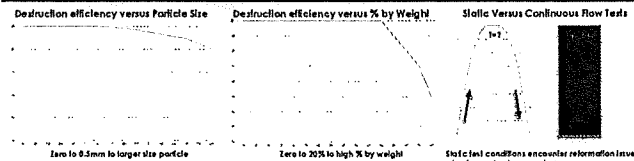
System arrangement allows for easy tests with data analysis

GA iSCWO Demonstration Test Results



Liquid and Gas Analytics are Performed by Independent Laboratories and Results sent to Customer and Government Permitting Officials

ISCWO Operational Conditions

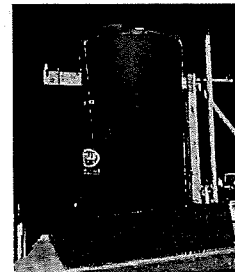
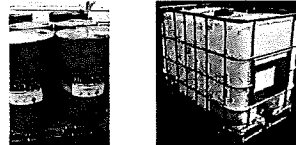
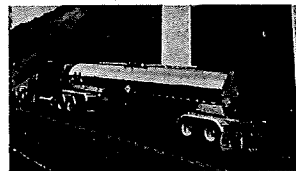


System Operations

- Autogenic conditions 2200 BTU/lbm (5117 KJ/kg or 1223 kcal/kg or 320 g/L COD)
- Maximum rate of a 3gpm ISCWO system with a liquid waste feed at autogenic conditions is 36,000 lbs per day or 16.4 metric tons/day
- Most waste slurry applications range between 20,000 lbs to 30,000 lbs per day (9.1 MT/day to 13.7 MT/day)
- Pumping viscosity ranges from 0.3 to 8000 mPa-s or Centipoise (CP)

ABOVE DEPENDS ON MATERIAL, CONCENTRATION, and HEAT CONTENT

GA iSCWO Test Setup – Waste Material Input

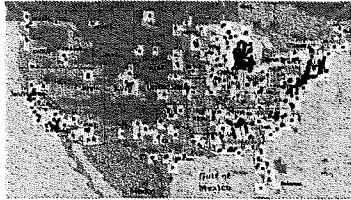


All types of shipments accepted for testing – Tanker Truck, 55 Gallon Barrels, Chemical Storage Totes and/or Specialized Tanks

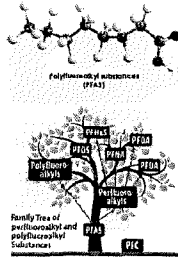
Recent and Future Testing (Spring/Summer CY 2019)

- 1,4-Dioxane with Tetrahydrofuran ✓
- Timber waste ✓
- Sodium Cresylate ✓
- Organic Bromines (Tetrabromobisphenol A) - Nov
- Tear Gas (CS – Chlorobenzalmononitrile) ✓
- ANSOL (Ammonium Nitrate) ✓ (complete, new tests)
- Pesticide waste (Chloral, chlorobenzene and DDT) - Dec
- Aqueous Fire Fighting Foam (AFFF) – planning
- Carbon Tetrachloride ✓

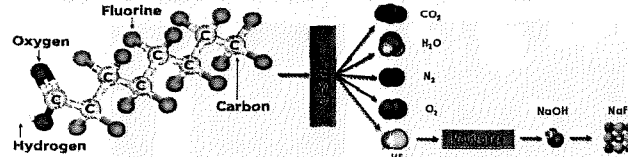
DDoD Per/Polyfluoroalkyl (PFAS) Nationwide Contamination



- PFAS contamination found on many DoD installations across US
- Initial contamination costs > \$2B
- DoD task force to study the contamination issue and recommend solutions
- HR 2500 NDAA Amendment 251 puts restrictions on thermal incineration of PFAS
- ISCWO could be the solution for onsite treatment



PFAS iSCWO Expected Results



- With a typical feed of PFAS, iSCWO will break the PFAS into
 - Carbon which combines with oxygen to make CO₂
 - Fluorine which is stripped off of the PFAS molecule and combines with hydrogen to make HF
 - Oxygen which combines with carbon, be consumed by the fuel and generates H₂O and/or CO₂, or emitted as excess oxygen
- Immediately at the reactor exit, the hot liquid will be quenched with sodium hydroxide (a base) which neutralizes the HF (an acid) to make a salt which is sodium fluoride (NaF).

Conclusions



- iSCWO is an excellent waste destruction process suitable for onsite treatment of organic wastes at affordable cost
- iSCWO is fully capable of destroying a wide range of pumpable hazardous waste to strict environmental standards
- Mobility for multi-site waste destruction
- iSCWO systems definitely can be utilized to destroy PFAS – need to test to prove it!
- No pollution abatement system necessary to meet environmental regulations
- GA has 25+ years experience with SCWO systems
- GA provides testing capability and effluent analysis for customers – know before you buy

PFAS iSCWO Destruction Specifics

- PFAS has a low energy content
- One 3pm iSCWO system most likely can process 2.7 gallons of waste along with 0.3 gallons of diesel fuel for energy
- Using iSCWO as the destruction technology, this equates to a destruction rate about 3800 gallons per day or 14.7 MT per day
- With the use of reverse osmosis (RO) and iSCWO, the concentrated PFAS waste is separated from the water which results
 - Clean water from the RO
 - Concentrated PFAS is destroyed by iSCWO
 - Higher destruction throughput
- Conditions to operate iSCWO
 - Pressure around 3400 psi (could go lower but this is first start)
 - Temperature at 650C (unique super critical conditions)

PFAS Possible Tests

It is strongly recommended that if there is any interest in iSCWO for the destruction of PFAS that low-cost tests be performed at GA to verify the suitability of iSCWO, determine the operational costs, and collect gas/liquid samples for analysis for environmental permitting

- Tests will determine
 - Throughput (how fast can we destroy the material)
 - Destruction efficiency (aiming for non-detect)
 - Benign gas effluents (CO₂, H₂O, O₂ and N₂)
 - Liquid effluents (how much neutralization is required to balance the pH)
 - How much water and fuel is required (most likely very little)
 - Actual operating temperature for non-detect destruction
 - Actual operating pressure (low as possible) for non-detect destruction
 - Maximum concentration of the material that can be processed
 - Operational costs
- It is encouraged that all tests be attended by interested personnel

Contact Information

Thank you very much for your time!

John Follin
 Director, Strategic Development / Business Development
 Demilitarization and Chemical Waste Destruction
 General Atomics Electromagnetic Systems Group
 1 858 964 6805 (office)
 John.Follin@ga.com

Before the Senate Committee on Natural Resources and Energy
Testimony of Vanessa D. Wishart
On behalf of the Municipal Environmental Group – Wastewater Division

Regarding 2019 Senate Bill 772
February 7, 2020

I am here today on behalf of the Municipal Environmental Group–Wastewater Division (MEG Wastewater). MEG Wastewater is an organization of approximately 100 municipalities statewide who own and operate wastewater treatment plants. We represent facilities ranging in size from small sanitary districts to larger utilities such as Racine and Green Bay.

The mission of our members is to protect public health and the environment through the treatment and reclamation of wastewater. Publicly owned treatment works are the boots on the ground that make clean water happen. On behalf of our members, we share the concern about PFAS compounds, and we support the regulation of these compounds based on due deliberation and credible science. We appreciate the efforts the authors have made to address some of the concerns expressed about the earlier bills on PFAS. Nevertheless, we have two major concerns with the current draft that will seriously impact the management of wastewater residuals known as biosolids that are land applied.

First, Section 13 of the bill gives the Department of Natural Resources (DNR) the authority to require proof of financial responsibility from a “person who possesses or controls” a PFAS substance for “emergency response actions, remedial actions, environmental repair and long-term care.” Because there are no thresholds or standards, this potentially could apply to any person who owns property on which any measureable PFAS compounds are found. And it should be noted that just because you can measure PFAS does not mean there is a risk to human health and environment. It depends on the levels of PFAS and the exposure pathways, which are different for groundwater, surface water and soil.

The problem is that we know there are background levels of PFAS in the parts per billion range in household dust, human blood, and elsewhere. If you test for PFAS at the parts per trillion range, you are likely to find it. Thus, if you test for PFAS in biosolids you will find it there, too.

With a few exceptions, nearly all municipalities in Wisconsin land apply biosolids. As a result, not only do municipalities possess or control a PFAS compound, but when land applied, so would the landowner. Under this bill, municipalities are exempt from financial responsibility requirements but landowners are not. It’s important to remember the arrangement to apply biosolids is voluntary. Landowners do not need to accept biosolids and are not required to take them. While one would hope DNR would exercise its discretion and not require financial responsibility of persons receiving biosolids, the potential for that

obligation and associated liability exists under the bill. It will create a powerful disincentive to accept biosolids going forward.

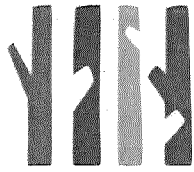
Second, we have a number of concerns with Section 12, the municipal grant program. Although clearly well intended, as drafted it creates several problems. At the outset, it defines any person who possesses or controls a PFAS compound at any level to be a “responsible party.” Responsible parties have the full range of liability and obligations under Wis. Stat. § 292.11 for remediation and cleanup. This definition has the potential to make every municipality a responsible party given that PFAS compounds are, as noted above, ubiquitous.

The other problem is that the grant program only applies to municipalities who are *not* responsible parties, or if they are a responsible party, they are eligible only when the landspreading of biosolids was done *prior* to the effective date of the bill. In other words, this will not be available for any landspreading activity after the effective date. And because there are only a limited number of fields on which to land apply, most fields will be used after the effective date. The practical result is that municipalities will be deemed responsible parties but have no real ability to access any of the grant funding this section creates.

MEG Wastewater continues to be willing to work with members of this committee to amend the bill in ways that would avoid these problems.

We appreciate the opportunity to participate in this hearing.

For more information contact Paul Kent at pkent@staffordlaw.com or Vanessa Wishart at vwishart@staffordlaw.com.



Midwest Environmental Advocates

To: The Senate Committee on Natural Resources and Energy
From: Attorney Rob Lee, Midwest Environmental Advocates
Date: February 7, 2020
Re: Support for SB 772 & AB 773

Chairperson Cowles and Members of the Committee, thank you for the opportunity to provide testimony in support of SB 772 and SB 773. My name is Rob Lee, and I am a staff attorney at Midwest Environmental Advocates (MEA). MEA is a public interest environmental law center that has worked for over two decades to protect Wisconsin's land, air, and water. SB 772 and SB 773 would provide state agencies with the resources necessary to address the many public health concerns linked to per- and polyfluoroalkyl substances (PFAS), a family of thousands of highly toxic, man-made chemicals that continue to be discovered throughout Wisconsin. MEA supports these bipartisan bills because they enable state agencies to protect the public health by preventing future contamination and investigating and cleaning up existing contamination.

I. Emergency rules establishing enforceable groundwater standards are necessary to protect the public health.

Human exposure to PFAS most commonly occurs from drinking water. Two thirds of the people living in Wisconsin get their drinking water from groundwater, and over three fifths of those people rely on private wells. As such, providing the Department of Natural Resources (DNR) with the authority to promulgate emergency rules is necessary to protect the public from PFAS contamination now, not three years from now. Allowing these emergency rules to stay in effect while DNR navigates the lengthy process to promulgate permanent administrative rules also ensures there is no lapse in public health protections.

II. The current groundwater enforcement standards development process should remain nonpartisan, unbiased, and solely based on sound science.

MEA would also like to take this opportunity to address complaints about the groundwater enforcement standards development process that we have heard in the last couple of weeks. That process is important because it triggers most of the requirements contained in these bills. One complaint is that special interests do not get to influence the Department of Health Services' (DHS) scientific review that leads to its recommendations for groundwater enforcement standards. The process is set up that way on purpose. DHS's review is supposed to be entirely based on its nonpartisan and unbiased review of the available scientific literature and recommendations for protecting the public health, regardless of the cost. Considerations of cost appropriately come later, during the administrative rulemaking process, where input from stakeholders on all sides is not only accepted but encouraged.

DNR even held a stakeholder meeting on February 6, 2020 to explain the rulemaking process and gather additional public input before it begins drafting rules based on DHS's recommendations. DNR is not required to hold such stakeholder meetings under the law but did so of its own volition, and not a single person at that stakeholder meeting raised questions about the groundwater standard recommendation

process or asked DNR and DHS for an early release of the document describing the information and methodology DHS used to make its recommendations.

Another complaint is that Governor Evers shortened the public comment period for DHS's recommendations, which the agency adopted as a guidance document, and that the public was unable to comment on the recommendations. First, guidance documents do not have the force of law, and as such whether an agency has "adopted" a guidance document is mere semantics. Second, Section 227.112 of the Wisconsin Statutes makes clear that agencies must accept ongoing public comments on all guidance documents they adopt. The public can submit comments on DHS's groundwater recommendations right now.

III. Establishing safe drinking water standards, surface water quality standards, and air emission standards are also important when it comes to protecting the public health.

Establishing safe drinking water standards for PFAS are important because those standards apply to public water systems, regardless of the source of water. PFAS standards that regulate surface water discharges are important too because exposure can result from contact, ingestion, and consumption of contaminated fish. Air emissions are equally important not only because exposure can occur through inhalation, but also because air emissions deposit onto the surrounding area, which can then result in surface water and groundwater contamination.

IV. PFAS are extremely difficult to destroy, making proper disposal essential to prevent further contamination.

The appropriation to the University of Wisconsin System for research into technologies capable of *destroying* PFAS is extremely important. There is a reason PFAS have been nicknamed "forever chemicals." They are virtually indestructible, and it takes a significant amount of energy to destroy them. Even if all the PFAS-containing fire-fighting foam is collected and all water utilities and sewer plants could filter these chemicals, something must be done so they do not end up back in the environment. Incineration is one possibility that may be effective, but even that has not been fully researched.

V. The provisions allowing DNR to require financial assurance and creating the PFAS Action Fund will reduce the amount taxpayers will have to pay for expensive cleanup operations.

MEA also supports allowing DNR to require financial assurance and the creation of the PFAS Action Fund. These provisions ensure that taxpayers will not have to foot the entire bill for expensive cleanup operations. Requiring financial assurance from entities whose activities pose a significant risk to the environment and public health is a common practice in Wisconsin. Should an entity that possesses, controls, or discharges PFAS become financially insolvent, the cost of remediation and long-term care of contaminated sites is still covered. The creation of the PFAS Action Fund guarantees all funds the state receives from the settlement of ongoing or proposed enforcement actions for PFAS-related environmental violations are dedicated to cleaning up the contamination that gave rise to those enforcement actions. Finally, even when a responsible party cannot be identified or in certain circumstances when a local government is the responsible party, the PFAS Municipal Grant Program enables local governments to take actions and protect their communities without going broke.



TO: Senate Committee on Natural Resources

FROM: Jason Culotta
President
Midwest Food Products Association

DATE: February 7, 2020

RE: Opposition to Senate Bill 772 and Senate Bill 773

The Midwest Food Products Association (MWFP) appreciates the opportunity to testify in opposition to Senate Bill 772 and Senate Bill 773, which would create new enforcement standards for perfluoroalkyl and polyfluoroalkyl substances, known as PFAS.

MWFP is the trade association representing food processors and their allied industries throughout Illinois, Minnesota, and Wisconsin. As Governor Evers noted in his State of the State address, Wisconsin is among the leading states for the growing and processing of vegetables. The state ranks second in the nation in vegetable production, only behind California. Most of our food processors and their contract growers, along with others in the agricultural industry, would be directly and negatively impacted by adoption of this legislation.

Water is an essential ingredient for the agriculture and food industries. Food manufacturers use water in many products but also utilize it to clean, peel, heat, and steam raw products. Purchasing, pumping, and treating water represents a major cost to food manufacturers. While we support efforts to manage and ensure access to clean, healthy water – including groundwater, we recognize the need to proceed deliberately to ensure new regulations are effective in addressing problems where they exist.

Below are several of the concerns our members have expressed with this legislation.

Land Spreading Liability

Land application of biosolids received from municipal wastewater operations may be used on fields at least one year prior to growing vegetables. Adoption of this legislation complicates the use of biosolids containing PFAS compounds generated by municipal wastewater by potentially creating legal exposure to the growers as well as the processors who use crops harvested from fields where biosolids containing these substances have been previously spread.

The liability potentially created under this legislation for vegetable growers will invent a new issue of how to dispose of this municipal wastewater byproduct.

Regulating Without Proving Health Impacts

Another concern of MWFPA members is Senate Bill 772's provisions to regulate PFAS compounds about which little is known of the potential health impacts. Two of the compounds used in firefighting foam, PFOA and PFOS, have been most widely studied and are certainly candidates for regulating, as science-based standards can be discussed regarding these substances.

Adopting standards for substances beyond PFOA and PFOS becomes problematic if health studies on the human health impacts of these substances cannot be found or do not exist. We understand that other First World groups like Health Canada may have conducted some research in this area that could provide guidance for Wisconsin to emulate.

Broad Emergency Rule Authority

Under the current Chapter 160 process, the Department of Health Services (DHS) has begun developing proposed enforcement standards for substances identified by the Department of Natural Resources (DNR) as potential public health concerns impacting groundwater. These standards are developed in cycles, which we are presently in the tenth round of and plans for the eleventh are well under way.

A number of PFAS substances have been identified by DNR to include in Cycle 11 groundwater process. We have shared the Cycle 11 proposed list of substances with industry scientists and are searching for how those substances may be or had been used in food manufacturing.

Presumably, granting emergency rule authority to DNR under this legislation will result in all or many of these Cycle 11 substances – about which little on the human health effects may be publicly available or known – being regulated under emergency rule and perhaps outside of the established Chapter 160 process.

Proposed Air Emission Standards

It is unclear how the proposal in Senate Bill 772 to create 4,000-plus air emission standards for the full family of PFAS compounds – long-chain and shorter-chain – will function or impact food manufacturing. This is an enormous undertaking that we do not believe has been undertaken anywhere.

“Responsible Party” and Financial Responsibility Liability

Vegetables canned or frozen at Wisconsin processors could contain PFAS concentrations above those very low standards proposed by DNR (likely similar to the ultra-low 20 ppt proposed for PFOA and PFOS in Cycle 10) – even without the intent of the processor. The plant water supply used in the processing process or vegetables harvested from fields which may have been previously sprayed with biosolids or other sources that contain PFAS concentrations in excess of the state standard will create a very high threshold that food manufacturers will need to comply with.

The financial responsibility language of Senate Bill 772 also potentially creates a new financial hurdle for businesses like food processors that may have to post bonds or line of credit with DNR to operate.

Given the low-margin nature of the vegetable processing industry, this new liability for growers and processors may lead to unexpected reductions in the industry's capacity. This would be tragic if there were no actual human health improvements gained by adopting such far-reaching legislation.

MWFPA opposes this legislation in its current form. Nevertheless, we are interested in working with the authors and other lawmakers on a sustainable solution that properly protects human health and allows vegetable production to continue to thrive.



cleanwisconsin

YOUR ENVIRONMENTAL VOICE SINCE 1970

Testimony of Carly Michiels

Government Relations Director, Clean Wisconsin

Senate Bill 772 PFAS standards, grant programs, blood testing, cancer study, and rule procedures

Senate Bill 773 funding for PFAS programs and positions

February 7, 2020

Thank you for the opportunity to testify on Senate Bill (SB) 772 and SB 773 both relating to PFAS contamination in Wisconsin. We appreciate the authors Representative Nygren and Senator Hansen for their work on this important issue. Thank you to the Committee, and Chairman Cowles for hearing these bills today.

Clean Wisconsin is a non-profit environmental advocacy organization focused on clean water, clean air, and clean energy issues. We were founded almost fifty years ago and have over 20,000 members and supporters around the state. We have been working on water pollution issues in Wisconsin since our founding, and while some of the particulars have changed Wisconsin remains a state with abundant water resources but also abundant challenges in restoring and protecting those waters. Clean Wisconsin employs scientists, policy experts, and legal staff to bring all the tools at our disposal to protect and improve our water resources.

PFAS (Per - and poly fluoroalkyl substances) are an emerging human-made contaminant many communities are still learning about and not yet testing for. They are also known as harmful "forever chemicals" because they do not easily break down and build up in the body and environment over a lifetime. PFAS can have serious health effects and Wisconsin residents are already drinking contaminated water, playing in polluted waterways, and eating contaminated food like fish. The most common places to find high levels of PFAS are near companies that manufacture products that use PFAS materials, places such as military airfields or training bases that are heavy users of PFAS, and wastewater treatment plants that receive all of them.

We need bills like SB 772 and 773 to provide state protections for our communities from these federally unregulated, harmful chemicals. Other states like Michigan have already made concerted efforts and significant investments to identify all contamination sites and coordinate comprehensive solutions to this problem. From 2017 to 2019 the Michigan legislature appropriated \$51.4 million specifically to address PFAS contamination. Wisconsin has a lot of catching up to do. But there has been increased bipartisan attention on addressing PFAS pollution in Wisconsin including from the Governor, state legislators like the authors of this bill, and state agencies.

This is important to me not only professionally but because my hometown is Marinette. And Marinette is the hotspot in the state dealing with a massive PFAS contamination problem that affects both groundwater and soils where manure has been spread on agricultural fields. People in that community, my own family members, are still relying on bottle water deliveries for access to safe drinking water. One source of drinking

water tested above 1,900 parts per trillion (ppt) which is 95 times higher than the Department of Health Services (DHS) recommended statewide standard of 20 ppt.

This is why solutions are necessary right now. Communities and families should no longer be forced to figure out how to deal with a massive contamination problem like this on their own. However, that is just what they have been doing. This issue in Wisconsin has really been community driven – where outreach, education, and demands have come from people in communities like Marinette. They had to start their own advocacy groups, host their own events, and take time out their day to attend numerous public hearings, and meet with legislators to demand action.

PFAS contamination is not an issue that can go unaddressed any longer. It's not just Marinette, there are currently over 30 contamination sites across Wisconsin being investigated by the DNR. As testing for PFAS increases, there will likely be more communities that find themselves with a new water contamination problem to confront. These bills along with the efforts DNR is undertaking through rulemaking will be an important step forward in setting standards, reducing exposure, providing necessary resources, and ultimately protecting our communities.

We appreciate the journey and hard work put in by the authors to bring forth these bills today. Although not perfect, there are important aspects that we are very supportive of and happy to see addressed. These bills provide much needed resources for staff, research, continuing investigations, remediation, and testing. As well as grant programs and an action fund to continually support communities dealing with PFAS contamination. They additionally allow for state standards to start protecting and preventing continued contamination in groundwater and surface water.

Clean Wisconsin will continue to support research-based protections and all efforts to limit and eliminate sources of PFAS contamination, as there is much work yet to be done. We support SB 772 and 773 and thank the authors and those already in support of the bills.

Thank you.



February 7, 2020

Dear Senate Committee on Natural Resources and the Environment:

Thank you for providing this opportunity for me and other citizens to comment on these PFAS bills.

The Midwest Environmental Justice Organization (MEJO) supports SB 772 and SB 773 and opposes SB 774 and SB 775.

The Midwest Environmental Justice Organization (MEJO) was co-founded in 2005 with subsistence anglers who depend on self-caught fish as a source of food. Since then our organization has worked with affected communities to prevent exposures to PCBs, mercury, and other toxic chemicals that build up in fish--and to identify, reduce and/or eliminate the sources of these chemicals.

Like PCBs and mercury, highly toxic PFAS compounds build up in fish to levels hundreds and thousands of times higher than levels in water. People of color and low income anglers, who often depend on fish as a source of food, are most vulnerable to these toxic exposures and their detrimental health effects.

Fishing is a really important cultural and recreational activity throughout the state of Wisconsin, and many anglers who fish from PFAS-contaminated waters throughout the state, and eat their catch, are at risk. Having grown up in the Fox River Valley eating PCB-laden fish my whole life without knowing it--finding out only as an adult when the Fox River was declared a Superfund site-- this is an issue I relate to personally.

Here in Madison, 3,700 parts-per-trillion (ppt) of one type of PFAS--PFOS--were recently found in Starkweather Creek, just a few miles north of the Capitol and very near my home. Total PFAS levels were as high as 8,815 ppt. PFOS levels in fish were up to 180,000 ppt. Starkweather Creek flows into Lake Monona, a destination fishing location for people from Dane County and all over the state. Lake Monona water and fish also had PFAS at significant levels.

MEJO works with subsistence anglers who ate this fish and shared it with their families--including pregnant women and children--for years. These exposures cannot be undone.

What do these numbers mean? Because Wisconsin has no surface water standards for PFAS (which typically are set to also protect from harmful exposures via fish), and the EPA also hasn't set standards, we have to point to other states' and other countries' standards. For instance, Michigan's standard for PFOS, the compound that builds up to the highest levels in fish is 11 ppt (if it's drinking water) and 12 ppt (not drinking water). The European Union's surface water PFOS standard is 1 ppt.

It is urgent that Wisconsin develop statewide PFAS standards without delay. We should not have to rely on other states and countries for PFAS standards.

It is also urgent that policymakers find ways to help responsible parties investigate and clean up PFAS as soon as possible to prevent further exposures to people, fish and wildlife, and the environment. To date, known and potential sources of PFAS to Starkweather Creek have only been minimally investigated and **no cleanup of known PFAS sources to Starkweather Creek has yet been done.** The responsible parties identified by DNR, which include the U.S. military, City of Madison and Dane County, have not done further investigations and cleanup because they claim to have limited resources and capacity to do so and/or are concerned about their liabilities.

We ask you to support bipartisan bills SB 772/SB 773 because they provide grant programs to help local governments investigate and clean up PFAS contamination, better understand people's exposures to these chemicals and their health effects, provide staffing to state agencies to help businesses, communities, and responsible parties assess and remediate PFAS contamination, and help DNR develop consistent, statewide PFAS standards.

In contrast, SB 774/SB775 are highly inadequate because they propose enforcement "zones" rather than comprehensive statewide standards, prevent emergency rulemaking, and focus on only 2 of 36 toxic PFAS chemicals polluting Wisconsin's water resources. The approaches incorporated in these bills also will result in a patchwork of inconsistent cleanup around the State, making less-powerful communities more vulnerable than others.

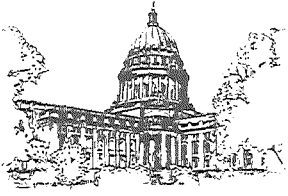
Please support SB 772/773 and reject SB774/SB775.

Thank you again for this opportunity to comment.

Sincerely,

/s/ Maria Powell

Maria Powell, PhD
Executive Director, Midwest Environmental Justice Organization
People's PFAS Action Team
Madison, Wisconsin
608-240-1485, mariapowell@mejo.us



WISCONSIN STATE ASSEMBLY
Christine Sinicki
STATE REPRESENTATIVE

February 7, 2020

Testimony on Senate Bill 772 and 773, Senate Natural Resources Committee

Thank you Chairman Cowles and Senators.

I apologize I cannot be there in person to testify, because pollution from PFA chemicals is becoming quickly a high profile issue in my district akin to the situation here in Senator Miller's district.

Like his, my district is home to an airport, General Mitchell International Airport, as well as an adjacent air national guard wing, a base for gigantic military refueling aircraft (not fighter jets, thank goodness). I've attached a memo I received recently from our air-refueling wing about the issue of PFAs. It does state that they have switched from PFA foams to "more environmentally friendly" foams.

Both of these airports, civilian and military, have their own fire departments, which have in the past used PFA firefighting foams both for training and for actual incendiary incidents. These foams for decades have been draining off the airport and airbase both toward and into Lake Michigan and in other directions into local streams and rivers, which also eventually drain into Lake Michigan. Both airports have worked with the DNR for some time on cleanup efforts and practice reforms.

As I'm sure you're aware, local residents and people from all over southern Wisconsin come to Milwaukee to fish for the prized large game fish found in Lake Michigan. Some local groups depend on these fish heavily to supplement their diets. Burmese refugees in Milwaukee, for example, use fish almost solely for their source of protein, consuming the entire fish in their traditional cooking methods. PFA levels in Lake Michigan fish, as a result of local run-off, are as yet mainly unquantified, though DHS has been running a study to determine PFA blood levels in some of these individuals.

Immediately to the north of my district is the largest producer of biosolids in the state, the Metropolitan Milwaukee Sewerage District's (MMSD) treatment plant. This plant produces Milorganite, a fertilizer sold nationwide, mostly, they have told us, to non-agricultural users. MMSD also been working with the DNR for some time about the issue of PFA concentrations in biosolids. I've attached an informative memo from MMSD.

I explain all of this simply to add strength to the premise that there are probably no places in the State of Wisconsin that remain untouched by PFA and PFO pollution. Certainly some areas, like mine, have reason for heightened concern. In the 20th Assembly District and the whole 7th Senate District, these concerns are intensifying among our constituents and local elected officials as the public becomes quickly more aware and alarmed about this pervasively present chemical.

So, I am very grateful to Senator Hansen and Representatives Nygren and Swearingen and all their staff for what I'm sure has been complex work in writing these bills. I appreciate the proposals especially to interact with community members more directly and more comprehensively, among other measures.

I will certainly support these bills and will urge my colleagues in the Assembly Democratic Caucus to do the same.

Thank you.



**DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 128TH AIR REFUELING WING (ANG)**

28 JANUARY 2020

MEMORANDUM FOR STATE REPRESENTATIVE CHRISTINE SINICKI

FROM: 128 ARW/CC
1919 E Grange Ave
Milwaukee WI 53207-6142

SUBJECT: PFAS Informational Meeting

1. The 128th Air Refueling Wing (128 ARW) is unable to attend the public informational meeting that is being organized by your office for Feb. 1 at Cudahy High School. However, we are providing the following information and resources to be shared with the public.

2. The 128 ARW is following the Air Force response regarding perfluorooctane sulfate (PFOS) and perfluorooctanoic acid (PFOA). The 128 ARW is working with stakeholders, to include Milwaukee Mitchell International Airport, Air Force Civil Engineer Center, Air National Guard Readiness Center, by using a three-step approach – identify, respond, and prevent.

a. Identify - The 128 ARW is conducting investigation work and response actions guided by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The 128 ARW has completed both the preliminary assessment and site inspection and is pursuing the next step of remedial investigation. In addition, the 128 ARW is coordinating with Milwaukee Mitchell International Airport to complete a work plan in accordance with the Wisconsin Department of Natural Resources' (WI DNR) hazardous substance spill law.

b. Respond – The Air Force Civil Engineer Center is ready to respond to drinking water impacts that exceed the Environmental Protection Agency (EPA) lifetime health advisory level of 70 parts per trillion. There are no identified drinking water systems in the surrounding neighborhoods exceeding the EPA lifetime health advisory level.

c. Prevent - The 128 ARW has replaced the aqueous film forming foam (AFFF) in fire trucks, stockpiles, and hangar fire suppression systems with a more environmentally responsible formulation as required by the Department of Defense. Fire trucks at the 128 ARW have been retrofitted with a system that prevents foam discharge during equipment testing and training. The 128 ARW is following Air Force guidance which only allows discharge of foam during real-world fire emergencies.

3. The Wisconsin National Guard also is working in cooperation with the Wisconsin DNR regarding PFOS/PFOA concerns at its facilities, including the 128 ARW. The 128 ARW is

committed to participating in any local informational meetings on this issue hosted by the Wisconsin DNR.

4. The 128 ARW is a community partner by providing fire and emergency support to aircraft emergencies at Milwaukee Mitchell International Airport, as well as, responds regularly to mutual aid calls from local communities including Cudahy, Milwaukee, Oak Creek, St. Francis, and South Milwaukee.

5. The 128 ARW recommends the following website resources describing the Air Force and Department of Defense response.

a. Air Force Civil Engineer Center

(<https://www.afcec.af.mil/WhatWeDo/Environment/Perfluorinated-Compounds/>)

b. Department of Defense

(<https://www.defense.gov/Explore/Spotlight/pfas/>)

6. Any inquiries can be directed to the 128 ARW Public Affairs office by calling 414-944-8715 or preferably by email at usaf.wi.128-arw.list.environmental-affairs@mail.mil.

LOCKE.JAMES.VE Digitally signed by
RNE.1177019352 LOCKE.JAMES.VERNE.1177019352
Date: 2020.01.28 15:01:29 -06'00'

JAMES V. LOCKE, Colonel, WI ANG
Commander



PARTNERS FOR A CLEANER ENVIRONMENT

In July, 2019, MMSD received a letter from the DNR regarding the statewide initiative to identify and quantify sources of perfluoroalkyl and polyfluoroalkyl substances (PFAS) and requested that our POTW take voluntary actions, including monitoring and source identification.

MMSD staff have followed this issue closely for the past few years or more. We support WDNR's desire to collect monitoring data, investigate and reduce sources of potential PFAS contamination.

Staff have attended and provided input at most of the PFAS Technical Advisory Group and Subgroup meetings, and technical input to the WDNR Laboratory Certification staffs PFAS laboratory certification plan and requirements document.

In support of the DNR's effort, we plan to take the following actions:

- We will collect influent and effluent samples at our two water reclamation facilities. Given the magnitude of our daily flows and the size of our industrial base, however, one sampling event is inadequate to give us a representative snapshot of our system. So, we plan on an initial survey that would include three sampling events at each of our facilities, spaced roughly 3-4 weeks apart.
- Given the importance of this data, we will use a WDNR certified laboratory. Knowing that the Department is making remarkable progress in getting the requirements document completed and establishing a certification for PFAS, we know that we will not need to wait too long for a certified laboratory to be available. We would rather wait until we have the added assurance of using a laboratory that is certified.
- As the primary pollutants of concern at this time are PFOS and PFOA, we will limit our initial wastewater monitoring efforts to those two compounds. While the WDNR has expressed an interest in getting data for 34 additional PFAS compounds, we will not know which of those compounds will actually be compounds of concern until more data is available from WDNR, presumably some time in 2020 or later. The benefit of collecting information must be weighed against potential public concerns over values that cannot be interpreted or related to any risk or regulatory values. Nor can they be compared to national standards or, in some cases, monitoring data collected by other states since the list is unique to our state. In response to PFAS contamination being a national and global issue, we should exercise caution in developing customized analyte lists to define the problem.
- With regards to biosolids, we are already responding to requests for testing based on regulatory requirements from other states where we distribute Milorganite® fertilizer. Our annual testing for 2019 was performed according to the requirements (including specific analyte list) for the state of Maine. For 2020, we will review the requirements we need to meet for all our customers and establish a monitoring plan based on meeting those needs. From what we know now, it appears that there will be overlap in requirements so that we can meet multiple needs in an efficient manner.



To: Senate Committee on Natural Resources and Energy

From: Curt Witynski, League of Wisconsin Municipalities
Paul Kent, Municipal Environmental Group – Wastewater Division
Lawrie Kobza, Municipal Environmental Group – Water Division
Chris Groh, Wisconsin Rural Water Association
Nancy Quirk, Wisconsin Section of the American Water Works Association

Date: February 7, 2020

Re: SB 772, PFAS Regulation

The League of Wisconsin Municipalities, Wisconsin Rural Water Association, Municipal Environmental Group – Wastewater Division, the Municipal Environmental Group – Water Division, and the Wisconsin Section of the American Water Works Association (collectively, the Municipal Water Coalition) offer the following comments on SB 772 for information purposes only. We appreciate the work the authors have put into crafting a compromise PFAS bill. This bill is an improvement over the CLEAR Act (SB 302/AB 321). However, the Municipal Water Coalition has several concerns about the bill, which we highlight below:

Section 13. Financial responsibility. Section 13 of SB 772 gives the Department of Natural Resources (DNR) the authority to require proof of financial responsibility from a “person who possesses or controls” a PFAS substance for “emergency response actions, remedial actions, environmental repair and long-term care.” Because there are no thresholds or standards, this potentially could apply to any person who owns property on which any measurable PFAS compounds are found, including, and most importantly from our perspective, farmers who allow for the land spreading of biosolids from municipal wastewater treatment plants.

With a few exceptions, nearly all municipalities in Wisconsin land apply biosolids. As a result, not only do municipalities possess or control a PFAS compound, but when land applied so would the landowner. Under this bill, municipalities are exempt from financial responsibility requirements, but landowners are not. While one would hope DNR would exercise its discretion and not require financial responsibility of persons receiving biosolids, the potential for that obligation and associated liability exists under the bill. It will create a powerful disincentive to accept biosolids going forward.

As a solution, we urge the authors to amend the bill by adding language making the financial responsibility section inapplicable to landowners who accept the land spreading of biosolids from municipal wastewater treatment facilities.

Section 12. Municipal grants. Although clearly well intended, as drafted this provision creates the following two problems:

1. It defines any person who possesses or controls a PFAS compound at any level to be a “responsible party.” Responsible parties have the full range of liability and obligations under Wis. Stat. § 292.11 for remediation and cleanup. This definition has the potential to make every municipality a responsible party given that PFAS compounds are ubiquitous.
2. The other problem is that the grant program only applies to municipalities who are *not* responsible parties or if they are a responsible party only when the land spreading of biosolids was done *prior* to the effective date of the bill. In other words, this will not be available for any land spreading activity after the effective date. And because there are only a limited number of fields on which to land apply, most fields will be used after the effective date. The practical result is that municipalities will be deemed responsible parties but have no real ability to access any of the grant funding this section creates.

Thanks for considering our comments. We look forward to working with the authors of SB 772 on possible amendments to address our concerns.



WISCONSIN CIVIL JUSTICE COUNCIL, INC.

Promoting Fairness and Equity in Wisconsin's Civil Justice System

Officers & Members

President – Bill G. Smith
*National Federation of
Independent Business*

Vice President -
Scott Manley
*Wisconsin Manufacturers
& Commerce*

Treasurer -
Andrew Franken
*Wisconsin Insurance
Alliance*

Secretary - Brad Boycks
*Wisconsin Builders
Association*

John Mielke
*Associated Builders
& Contractors*

Gary Manke
*Midwest Equipment
Dealers Association*

Jason Culotta
*Midwest Food Products
Association*

William Sepic
*Wisconsin Automobile &
Truck Dealers
Association*

John Holevoet
*Wisconsin Dairy Business
Association*

Brian Doudna
*Wisconsin Economic
Development Association*

Eric Borgerding
*Wisconsin Hospital
Association*

Neal Kedzie
*Wisconsin Motor
Carriers Association*

Matthew Hauser
*Wisconsin Petroleum
Marketers &
Convenience Store
Association*

Kristine Hillmer
*Wisconsin Restaurant
Association*

To: Members, Senate Committee on Natural Resources & Energy
From: Paige Scobee, Lobbyist
Date: February 7, 2020
Re: **Opposition to SB 772 & SB 773**

WCJC opposes SB 772 and SB 773, which would impose costly regulations without reliable science and fuel frivolous lawsuits from plaintiff attorneys. Environmental policy and liability should not be imposed ahead of science.

PFAS are a group of more than 4,000 compounds, each of which has different chemical properties. These chemicals are found in many everyday products, including nonstick pans, cleaning products, paints, medical equipment and firefighting foam.

I. WCJC Opposes Giving DNR Broad Authority to Regulate All PFAS Compounds.

The most extensively studied PFAS compounds are PFOA and PFOS, which have been phased out of domestic manufacturing over the past decade. The federal Environmental Protection Agency (EPA) has set a health advisory limit of 70 ppt for PFOA and PFOS but is still studying the potential health effects of the thousands of other PFAS compounds. Few other jurisdictions have regulated PFAS chemicals other than PFOA and PFOS.

Despite the little science available on PFAS compounds besides PFOA and PFOS, SB 772 provides an extremely broad scope for the Department of Natural Resources (DNR) to immediately regulate thousands of other PFAS compounds. SB 772 requires DNR to promulgate emergency groundwater standards for PFOA and PFOS, as well as any other PFAS that the Department of Health Services (DHS) recommends, requires DNR to promulgate rules for surface water standards and maximum contaminant levels for any PFAS chemicals DHS recommends, and requires DNR to determine that all PFAS are air contaminants.

Giving DNR such broad authority to regulate these thousands of compounds creates regulatory uncertainty and potentially massive liability for Wisconsin businesses. Even with most jurisdictions regulating only PFOA and PFOS, estimates of total PFAS liability are in the billions. The federal Department of Defense alone estimates its liability for PFAS at \$2 billion.

Entities taking on this massive liability include not just Wisconsin businesses, but also municipal water and sewage treatment agencies, hospitals, farmers, airports, and any other entities disposing of everyday products that contain PFAS chemicals.

Before taking action on regulating any PFAS chemicals, the legislature and DNR should wait for a better scientific understanding of *which* of these chemicals actually pose a threat to the environment and human health.

II. WCJC Opposes the Extremely Strict Standards Proposed in SB 772.

SB 772 requires DNR to promulgate emergency groundwater standards for any PFAS chemicals for which DNR receives a recommendation from DHS. DHS has already recommended extremely strict standards for PFOA and PFOS *combined* at 20 parts per trillion with a preventive action limit of 2 parts per trillion. These levels would be some of the strictest regulations in the country, if not the world. WCJC, as part of the Wisconsin Water Quality Coalition, opposed these recommendations for various reasons.¹

SB 772 also requires DNR to set a reporting value for air emissions at “any amount greater than zero pounds per year,” an extremely strict level considering the lack of scientific studies evidencing that PFAS are prevalent or harmful in the air. The legislation also exempts DNR from providing written documentation based on scientific analysis to support that air standards are necessary for public health and welfare. Although SB 772 does delay the effective date of air emissions provisions until EPA’s PFAS air stack testing methods are effective, DNR should still be required to provide the standard scientific analysis required to set state air emissions standards.

Setting any enforcement standards creates legal evidence of a significant public health threat, giving plaintiff attorneys the opportunity to successfully sue industry based on these standards without proving any actual occurrence of illness. If standards are not based on levels supported by science, industry will face massive costs to engage in these frivolous lawsuits, even when there is only a microscopic presence of a PFAS chemical, with little to no actual benefit to public health.

The Legislature should not give DNR the broad authority to regulate PFAS chemicals at these extremely low standards and thereby allow these types of private actions to proceed before thorough research shows the exact levels in each medium when humans experience health effects.

III. WCJC Opposes the Financial Responsibility Language in SB 772.

The proof of financial responsibility requirements in Section 13 of SB 772 give DNR *extremely* broad authority to designate who pays for PFAS remediation. The over 4,000 PFAS compounds are so prevalent in consumer products and the environment that in practice almost any person

¹ View Water Quality Coalition comments on DHS recommendations here:
<https://drive.google.com/file/d/12qIL3C8X8ljfBWmmW7KmwKmLmPI2Gc6v/view>

could be found liable by DNR and be required to provide proof of financial responsibility for PFAS response and remediation. Industry and citizens who were never manufacturing or purposefully discharging PFAS could be responsible for millions of dollars in liability for PFAS contamination.

IV. WCJC Opposes the Blood Testing Pilot Program and Cancer Cluster Study in SB 772.

The blood testing pilot program is not scientifically feasible and will lead to unnecessary panic and frivolous lawsuits. At a December 2019 listening session in Marinette, DHS told attendees that the level of PFAS in a person's blood is not indicative of clinical health effects. DHS said there is an "association" but no link between PFAS blood levels and health effects. The Agency for Toxic Substances & Disease Registry has also stated that "Laboratory test results can't tell you if PFAS exposure has caused your health condition...PFAS blood tests can tell you the amount of PFAS in your blood. However, test results won't tell you how PFAS will affect your health now or in the future."²

Because 98 percent of people in the U.S. have some level of PFAS in their blood, blood testing will cause unnecessary fear with little benefit to the health of citizens in the Marinette and Peshtigo area. Instead, this testing would provide plaintiff attorneys with a large population of clients to file frivolous lawsuits against businesses in the area, with no scientific evidence to support the claims of injury. A national class action lawsuit has already been filed against several PFAS manufacturers on behalf of everyone with detectable levels of PFAS in their blood.

The cancer cluster study is also not scientifically feasible. DHS recently sent a letter to the authors of SB 772 stating that the population sample in the Marinette and Peshtigo area is too small to produce accurate scientific results in a cancer cluster study.³ Again, inaccurate results from a small sample size could cause unnecessary panic with little benefit to the health of citizens in the Marinette and Peshtigo area. Results of the study would likely lead to frivolous lawsuits against businesses in the area, with no accurate data to support the claims.

V. WCJC Opposes the Creation of a "PFAS Action Fund."

The "PFAS Action Fund" for settlement money created under the bill is a concerning acknowledgement that the state is planning to file lawsuits – or counting on others to file them – against industry for PFAS contamination. Creating a PFAS trust fund incentivizes the state and plaintiff attorneys to file lawsuits against businesses for PFAS contamination. Contamination should be addressed based on sound science and working in collaboration with industry to provide immediate relief for citizens with affected water systems, not through expensive, inefficient, and time-consuming lawsuits.

² ATSDR. "Talking to your doctor about exposure to PFAS."
https://www.atsdr.cdc.gov/pfas/docs/Talking_to_Doctor.pdf

³ Eagle Herald Extra. "DHS lacks science for PFAS health studies." Jan. 28, 2020.

<https://ehextra.com/Content/Social/Social/Article/DHS-lacks-science-for-PFAS-health-studies/-2/-2/59642>

Lawsuits should not come before science. Even without standards in place, we are already seeing plaintiff attorneys aggressively seek states and localities as clients to engage in PFAS litigation against businesses. Creating a “PFAS Action Fund” only further incentivizes plaintiff attorneys to seek contingency fee contracts with state and local governments. Despite the lack of established science on actual harms from PFAS, these plaintiff attorneys file lawsuits and seek massive settlements on behalf of state and local governments. In the end, it is the plaintiff attorneys who receive massive percentages from these settlements – not the state or actual injured parties – that benefit most from lawsuits.

Manufacturers stopped producing PFOA and PFOS in the U.S. decades ago. The civil justice system should not be used as a financial punishment for businesses dealing with historic contamination from products that were deemed safe, legal, and beneficial at the time.

VI. Conclusion

Under the provisions of SB 772, Wisconsin businesses, municipal water and sewage treatment agencies, hospitals, farmers, airports, and any other entities disposing of everyday products that contain PFAS chemicals could face millions of dollars in cleanup costs, legal enforcement action by state agencies, and lawsuits by plaintiff attorneys for the existence of potentially thousands of chemicals that have not yet been shown by federal or state agencies to cause negative human health effects.

Thanks to years of reform-minded legislation, Wisconsin was recently ranked the 13th best lawsuit climate in the nation. Our state’s positive legal climate makes it an attractive place to do business and create good-paying, family-sustaining jobs. Regulations proposed and enforced under this legislation could undo Wisconsin’s hard-earned reputation as a reliable place to do business and instead turn the state into a haven for plaintiff attorneys filing unwarranted lawsuits against businesses. For potentially little to no public health benefit, imposing burdensome regulations under this legislation would have a significant negative impact on Wisconsin’s economy and would stifle innovation.

WCJC supports science-based enforcement standards for chemicals that have actual, established human health effects, but SB 772 provides DNR far too broad a scope to regulate chemicals for which there is little established science confirming negative human health effects. The proposed regulations would impose billions of dollars in compliance and liability costs, crippling Wisconsin industry.

The Wisconsin Civil Justice Council’s mission is to promote fairness and equity in Wisconsin’s civil justice system, with the ultimate goal to make Wisconsin a better place to work and live.

Contact: Paige Scobee, scobee@hamilton-consulting.com, 608-258-9506