

# Watertown tire fire

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- Largest coordinated emergency incident in Wisconsin state history
- 920 firefighters from 106 fire departments
- 25 agencies
- Overall IC - Asst Chief Michael Quint



# Tire Fire Satellite Imagery

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- Smoke plume - 637 sq miles including 290 sq miles over Lake Michigan
- 6 days
- F-500 firefighting foam
- Former US EPA Superfund

University of Wisconsin - Madison, July 19, 2005, Satellite image of the Watertown Tire Fire, <https://phys.org/news/2005-07-satellite-imagery-watertown.html>





# *Code PFAS*

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- Researched firefighting foams containing PFAS
- Information shared with:
  - Watertown Fire Department
  - 106 fire departments at the Watertown tire fire
  - 762 Wisconsin & 776 Missouri fire departments
  - (IAFC) International Assn of Fire Chiefs, (IAFF)
  - International Assn of Fire Fighters, state fire chiefs' associations & state fire marshals

**1.2M firefighters - - 70% are volunteers**

# Fire Service on PFAS

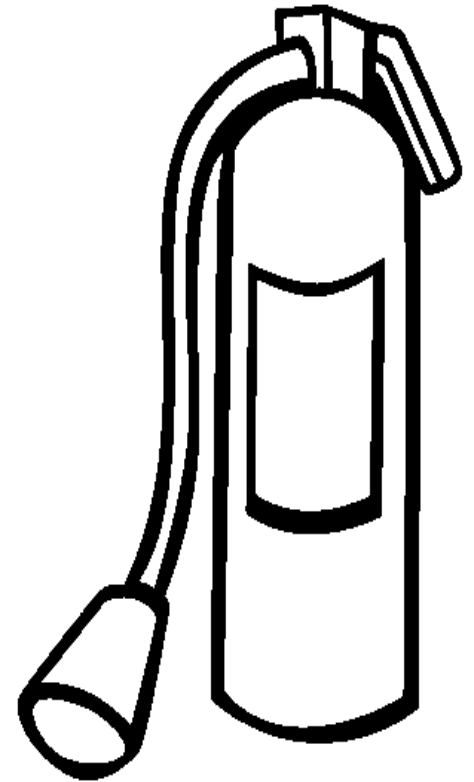
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- Fire service has been unaware of PFAS toxicity in Aqueous Film Forming Foam – AFFF
- Incident Commanders (ICs) are considered the first line risk managers
- Tested replacement fluorine-free foams are available
- Now, citizens are educating the fire service when they find out their water sources are contaminated with AFFF

# Change is coming!

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- Foam Exposure Committee was formed because of concern about firefighters' exposures to PFAS in firefighting foams
- Alert issued for fire extinguishers by the National Assn of Fire Equipment Distributors (NAFED)
- Insurance & legal pressures building
- Multi District Litigation (MDL)



# Why now?

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- AFFF is in water sources worldwide
- Airports & military are still using AFFF
- States are now collecting older AFFFs
- 360,000+ fire apparatus in 58,000 fire stations
- Fire departments are charged with protecting the public



Light Water ATC Plus 3M Foaming  
Firefighting 5 US Gallons 2328 WVS

**\$50.00**

or Best Offer

Local Pickup  
At Howell, Michigan



# Firefighter Exposures

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- Higher cancer rates than the general population
- Ingestion and / or inhalation during foam application
- Eat & drink while on incident sites
- Contaminated drinking water & food
- Dermal absorption

Sweeping Aqueous Film Forming Foam (AFFF) off the flight deck of the amphibious dock landing ship USS Tortuga. (Credit: U.S. Pacific Fleet)





# Wisconsin

## Watertown

Tire fire site – 16 years later

Rock River water samples tested

Test results handed off to the Wisconsin  
Department of Natural Resources

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**Marinette** - Tyco Fire Technology Center –  
decades of firefighting foam use continues  
to flow into Lake Michigan

City municipal water sources in Marinette  
and the Town of Peshtigo are contaminated  
Great Lakes provide water for 30M citizens

**Madison** - Lake Monona was  
contaminated during downtown transformer  
fires by the Madison Fire Department with  
a FireAde product - public pressure  
increased until they changed over to real  
fluorine-free foams that were tested



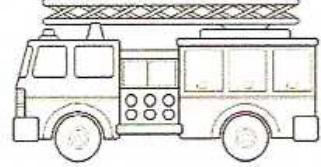

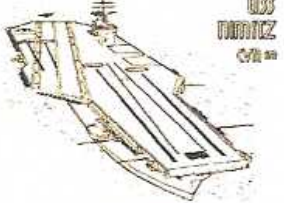


# Delivery systems of AFFF in Containers by Volume

“70 ppt is equivalent to about three-and-a-half drops of water in an Olympic-sized swimming pool” - - David Andrews, Senior Scientist at EWG said the fact PFAS are even measured in parts-per-trillion is a signal of the risk potential.<sup>2</sup>

<sup>1</sup> Phase I Final Rule and Technical Development Document of Uniform National Discharge Standards (UNDS), April 1999, Appendix A, p. 2, [https://www.epa.gov/sites/production/files/2015-08/documents/2007\\_07\\_10\\_oceans\\_regulatory\\_unds\\_tdddocument\\_s\\_appaafffnod.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/2007_07_10_oceans_regulatory_unds_tdddocument_s_appaafffnod.pdf)

<sup>2</sup> [Why a 'safe' PFAS level in drinking water is so ambiguous, Mlive, Grand Rapids, MI, Jan 19, 2019, https://www.mlive.com/news/grand-rapids/2017/11/what\\_is\\_a\\_safe\\_pfas\\_level.html](https://www.mlive.com/news/grand-rapids/2017/11/what_is_a_safe_pfas_level.html)

<i>Item</i>	<i>Delivery System</i>	<i>Amount of AFFF</i>
	Fire extinguisher	9.3 oz
	55 Gallon Drum (11 5 gallon pails)	55 Gallons
	Fire Apparatus	30 to 50 Gallons
	ARFFs	250 to 630 Gallons
	Aircraft Carrier <sup>1</sup>	> 20,000 Gallons

# PFAS Blood Testing

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- Military firefighters can now receive PFAS blood testing
- Retired military firefighters – can not
- What do the high PFAS #s in their blood mean?
- How will they lower PFAS in their blood?
- Blood testing / medical monitoring would help firefighters protect their health & get them access to care, when needed
- Dr. Jeff Burgess, University of Arizona, is working on firefighter exposure studies



# *What can be done right now?*

All US firefighters need PFAS blood testing

Retired military firefighters need PFAS blood testing

Fire departments can stop using AFFF right now – there are no regulations requiring them to use AFFF





PFAS Town Hall Session C, May 6, 2021

Presenter: Vicki Quint

© Foam Exposure Committee

Chief Michael H. Quint, EFO

