Message

**From**: Carignan, Courtney [carignan@anr.msu.edu]
**Sent**: 6/28/2018 5:58:03 PM
**To**: d Personal Email / Ex. 6 jpauley@nfpa.org; cdubay@nfpa.org
**CC**: peter_clark@shaheen.senate.gov; mark.dailey@masenate.gov; ashley_coulombe@warren.senate.gov; russell.halliday@mail.house.gov; mindi@mindiforcongress.org; bilott@taftlaw.com; president@pffm.org; president.local1009@gmail.com; jason.burns@iafflocal1314.com; rriley08@northshore.edu; geoffdaly@mkd-usa.com; Grevatt, Peter [Grevatt.Peter@epa.gov]; Dunn, Alexandra [dunn.alexandra@epa.gov]; gpeaslee@nd.edu; lpetrick@iaff.org; pmorrison@iaff.org; paul.jacques@pffm.org; rwalsh4justice@outlook.com; kathycrosby@comcast.net; kfent@cdc.gov; acaban@med.miami.edu; sshaw@meriresearch.org; jburgess@email.arizona.edu; pgrand@hsph.harvard.edu; hdavies@kingcounty.gov; mindi@mindiforcongress.com; geoff@geoffdiehl.com; holly.davies@kingcounty.gov; Personal Email / Ex. 6 ; emily.sparer@mail.harvard.edu; mmaynard@NFPA.org
**Subject**: RE: NFPA notification of PFOA statement at New England EPA PFAS Community Engagement, Exeter NH 6.25.2018

Hi Jim and Chris,

I am an exposure scientist and environmental epidemiologist – one of many scientists that Diane has reached out to over the past few months for technical support on this issue. My understanding of this issue is that high levels of PFAS are possibly present in firefighter turnout gear. While skin absorption is expected to be low from contaminated drinking water it is less clear how exposure may differ in a firefighting scenario – where levels in the turnout gear are potentially quite high and skin absorption may be increased in combination with heat and sweat. Given the health concerns for PFAS as well as for firefighters, it seems a question worthy of investigation.

Another concern I hear a good deal from the firefighting community is with regard to skin (and possibly oral and inhalation) exposure from training with AFFF or from an AFFF release. Again I do not have a good answer because I am not aware of any data that addresses this question. If those data exist it seems that it would be useful to review in collaboration with a task force or group that includes scientists, fire fighters, ect.

It is not entirely clear to me what agency is responsible for investigating these concerns. For occupational health there is OSHA and their research arm NIOSH. EPA is more air/water and ATSDR is mainly contaminated sites. Then there's CPSC. Perhaps the senator's office has some insight on this question.

The academic research community could also be of assistance, possibly in collaboration with one of these agencies.

Please don't hesitate to reach out with any insights on these questions and to let me know if I can be of any assistance.

Warm regards,

Courtney

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**From:** d Personal Email / Ex. 6
**Sent:** Thursday, June 28, 2018 1:08 PM
**To:** jpauley@nfpa.org; cdubay@nfpa.org
**Cc:** peter_clark@shaheen.senate.gov; mark.dailey@masenate.gov; ashley_coulombe@warren.senate.gov;

russell.halliday@mail.house.gov; mindi@mindiforcongress.org; bilott@taftlaw.com; president@pffm.org; president.local1009@gmail.com; jason.burns@iafflocal1314.com; rriley08@northshore.edu; geoffdaly@mkd-usa.com; grevatt.peter@epa.gov; dunn.alexandra@epa.gov; gpeaslee@nd.edu; lpetrick@iaff.org; pmorrison@iaff.org; paul.jacques@pffm.org; rwalsh4justice@outlook.com; kathycrosby@comcast.net; Carignan, Courtney <carignan@anr.msu.edu>; kfent@cdc.gov; acaban@med.miami.edu; sshaw@meriresearch.org; jburgess@email.arizona.edu; pgrand@hsph.harvard.edu; hdavies@kingcounty.gov; mindi@mindiforcongress.com; geoff@geoffdiehl.com; holly.davies@kingcounty.gov; **Personal Email / Ex. 6** emily.sparer@mail.harvard.edu; mmaynard@NFPA.org
**Subject:** NFPA notification of PFOA statement at New England EPA PFAS Community Engagement, Exeter NH 6.25.2018

Good afternoon Jim and Chris,

This past week I attended the New England EPA PFAS Community Engagement :

https://www.epa.gov/newsreleases/epa-hold-new-england-community-engagement-pfas

This EPA agenda came about due to the PFAS contamination of waterways contaminated by AFFF, and, on the heels of the newly released ATSDR PFAS study. https://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=1117&tid=237

I was able to give a statement on PFAS in the fire service (below).

After I was approached by Senator Shaheen's aide, Peter Clark, whom I spoke with this morning.

Yesterday I received two replies from both Peter Grevatt Dir, Office of Water and Alexandria Dunn RA of EPA District 1 New England.
They were unaware of the amounts of chemicals used in the coatings of our gear.

**They have the same concerns as Professor Peaslee regarding the degradation and water run off from the chemical coatings in**
**turnout gear during wash cycles and end of service.(see attached Professor Peaslee's reply..)**

In March, I submitted a New Projects Initiation to NFPA (attached NEW PROJECT INITIATION 3.18) seeking to identify and label the chemical additives and amounts used in turnout gear.

The recent ATSDR PFAS Report has now recommended PFOA MRL at 11ppt. The fraction of the potential of PFOA that came from new, never worn turnout gear was 157 ppb PFOA. That is 14,000 times higher in just the fraction of the potential that is in the gear.

Although the manufacturers no longer use PFOA, it does occur as a by product of production. As well, the new 'short chain'
chemistry aka Gen-X has yet to be proven safe.

I did receive a response from NFPA via phone call and email in regards to this initiation request and was given the guidelines on how to the to comment on the upcoming standards cycle.

Respectfully Jim and Chris in light of the newly released PFAS STUDY, **I wish to resubmit the NEW PROJECT INITIATION (attached) to you both today here publicly,** and ask again that this matter be 'fast tracked' to form a task force surrounding this issue.

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|---|---|
| h. | **Provide an estimate on the amount of time needed to develop the new project/document**<br><br>**This issue is IDLH. PFOA and some precursors are PBT. NFPA must act to 'fast track' this project. We have no knowledge of the chemicals and amounts we are wearing. We have no save handling methods for our new PPE and station wear. Without knowing chemicals and amounts we may be exposing ourselves unnecessarily to more carcinogens or potential carcinogens.** |

Sincerely,
Diane Cotter

***I also wish to state publicly, to all reading this email, THIS ISSUE NO LONGER BELONGS IN THE HANDS OF A RETIRED HOUSEWIFE.***

-----Original Message-----
From: d Personal Email / Ex. 6
To: peter_clark <peter_clark@shaheen.senate.gov>
Cc: mark.dailey <mark.dailey@masenate.gov>; ashley_coulombe <ashley_coulombe@warren.senate.gov>; russell.halliday <russell.halliday@mail.house.gov>; bilott <bilott@taftlaw.com>
Sent: Thu, Jun 28, 2018 10:50 am
Subject: Fwd: Your Turnout Gear and PFOA statement at New England EPA PFAS Community Engagement, Exeter NH 6.25.2018

Peter, than you for our conversation this morning.
We are desperate for help on this issue.

As mentioned, we need blood testing and dust studies in our stations desperately. We need to know what is in the new coatings of our turnout gear. We have NO idea what is being used other than it is of the PFAS GenX family.

I have cc'd Russell Halliday from Congressman McGovern's office, Environmental Attorney Robert Bilott , Ashley Coulombe of Senator Warren's office, as well as Mark Dailey from Madam President Senator Harriet Chandler's office.

We have met with Congressman McGovern, Ashley Coulombe, and Mark Dailey in person. I did see Senator Warren in person at the Holen MA town hall in May. I was able to hand her a 160 page document on this issue regarding the deceptions, omissions, conflict of interest of the manufacturers that immerse themselves in our fire fighter cancer research and studies and say nothing to the fire service about PFOA/PFOS.

I have submitted the 160 page document to the DOJ at least 4 times now since February. No response. Except they did confirm they have it. But no one has called to ask any questions.

Please help. The manufactures have been able to line their pockets off the backs of fire fighters as there are no regulations on the chemicals. No regulations on how much they can use in our gear. They could be pumping much more than is necessary to inflate their stock price.

Thank you.

Diane Cotter

-----Original Message-----
From: d Personal Email / Ex. 6
To: grevatt.peter <grevatt.peter@epa.gov>; Dunn.alexandra <Dunn.alexandra@Epa.gov>; geoffdaly <geoffdaly@mkd-usa.com>
Cc: gpeaslee <gpeaslee@nd.edu>; mindi <mindi@mindiforcongress.com>
Sent: Wed, Jun 27, 2018 10:56 am
Subject: Your Turnout Gear and PFOA statement at New England EPA PFAS Community Engagement, Exeter NH 6.25.2018

Good Morning all,

Dr Grevatt, Ms Dunn, thank you for hearing my statement Monday evening at the EPA PFAS Community Engagement.

Please understand we have been trying for well over one year to bring immediate attention to this issue for the fire service. I'm sure it may have

been a shock to see how much PFAS was in our turnout gear.

I wanted to bring Professor Peaslee into the conversation please, as he first tested the gear last year for PFAS content, then he tested for PFOA content. He has the same concerns about the water as you folks do. (see Professor Peaslee's reply...attachment)

My grave concern is for what is degrading in the fire stations. But if we can address that while you folks look at the water issue then by all means. (See attachments PPE storage 1-4 for examples)

Geoff Daly, your input to Paul and I was invaluable and I'd like you to meet Professor Graham Peaslee.

Mindi has been working since last August to shed light on this issue, speaking at fire stations and writing articles to bring insight to the issue that the turnout gear coatings need nation wide recognition.

But truly, we are desperate for CDC to get on board with this issue. The staggering amounts of PFOA/PFNA that collect over and over in the area where a FF hangs their gear is keeping me up at night.

Please see below for supporting links to statements I made Monday evening.

Thank you all.
Diane Cotter

https://www.facebook.com/1808869939437081/videos/2080367175620688/UzpfSTUwNzc0MDA5MToxMDE2MDU5MjUxNDcwMDA5Mg/

**Transcript from the first in the nation New England EPA PFAS Summit in Exeter, NH. 6.25.18**

**Thank you Organizers and EPA Panel Members for allowing me this opportunity to speak.**

**My name is diane cotter, I am here with my husband, Lt Paul Cotter, retired, 28 year veteran, Worcester Fire Department . And cancer survivor.**

**My community is the 1.3 million firefighters in this nation who have been completely overlooked in this PFAS catastrophe.**

**America's firefighters have been on the front line of PFAS exposure since 1983 using it in AFFF, being sprayed in our faces, wading in it, having turnout gear soaked in it, and exposing our families to it after bringing gear home.**

**We were not aware how toxic this substance was. This turnout gear I have is from 2004, it is new and never worn or 'contaminated' as the fire service would say. Jan of 2018 our grassroots effort acquired Professor of Physics Graham Peaselee, of Notre Dame Univ to test it for PFAS content. Just the 'fraction of the potential' that is in this gear tested at 157 ppb PFOA and 257 PFNA.**

**THAT IS 14, 000 times the newly set recommended limit of PFOA.**

**Turnout gear has been impregnated with PFOA since 1999 (at least) to meet NFPA water repellent STANDARDS. We were never made aware. We do not know how much. Only our gear manufacturers have that information. We sweat in this gear, our body temperature rises and our skin absorbs these toxins. We**

start our careers in our child bearing years. PFOA and PFOS are designated by California Prop65 as causing 'reproductive cancers'.

In 2006 the European Chemical Agency (ECHA) notified gear manufacturesr they would be restricting PFOA in 'textiles'. One of those textiles is firefighter PPE. By 2012 PFOA was designated a Substance of Very High Concern there. Gear manufacturers were made aware of the decision to restrict the amount of PFOA in turnout gear to 25ppb and 'precursors' to 1ppm.

http://www.hemmingfire.com/news/fullstory.php/aid/2601/Six-year_PFOA_reprieve_for_firefighters__protective_clothing.html

To date they have not advised the US of this issue. While the manufacturers are discussing and teaching about the issue in Europe, they have not mentioned it here. https://www.firerescueforum.com/content

They minimized the issue when it came up recently in a firefighting trade magazine published by 'Station Pride' titled 'The Real Cancer in Your Gear'. https://station-pride.com/2017/03/28/the-real-cancer-in-your-gear/

We are in a particularly high risk exposure setting as our gear has been degrading in our fire stations where we work, eat, sleep, since 1999.

The coating degrades in UV lighting, in many stations our gear is stored in open lighting next to apparatus in bays. Paul's station had 80 sets of gear rotating through his station in one week. The gear is designed to be used for 10 years. Over 20 years we have had thousands of sets releasing particles of PFOA into our stations.

The new short chain coatings are also a concern. NH State Rep and Enviro Scientist Mindi Messmer wrote an article on this issue titled Firefighter Cancer Quadfecta.

https://www.firefighternation.com/articles/2018/06/firefighter-cancer-quadfecta.html ;

From trade magazine FireFighter Nation:

The replacements, termed "short chain PFCs" were sported as better for the environment and public health. However, scientific studies conducted in laboratory animals indicate that the short chain replacements could be more toxic to humans since they accumulate longer in organs than the long chain legacy compounds. This may be the cause of cancer incidence in younger firefighters.
I have been advocating for a national health study specifically focused on firefighters to assess the health outcomes because they are highly exposed. It is often difficult to tie causation with cancer or other chronic diseases. Focusing on the highly exposed populations is more likely to carefully evaluate possible negative health outcomes for exposures to PFCs. This should include, at a minimum, thorough cancer screening and annual serum PFC monitoring of firefighters to provide longitudinal data to assess health outcomes (see Table 2). It is not enough to have a cancer registry, we have to prevent cancer by taking proactive steps to identify and prevent exposures in while firefighting, in fire stations, and in the turnout gear before they make firefighters sick.

To date there has not been a PFAS dust study done in our stations. Yet, biomonitoring has shown firefighters PFOA serum tested in ranges from 243 ng/mL to 423 ng/mL from a 'yet unknown source'. The 'DuPont Water Works' plant workers were considered high at 32 ng/mL.

Adding to this concern is the October 2, 2017 NH DES letter to every fire station in NH that of 6 of 7 New Hampshire fire stations water wells tested at 'elevated' levels of PFAS.

https://www4.des.state.nh.us/nh-pfas-investigation/wp-content/uploads/2017/11/Fire_Department_H20Sample.pdf

**In 1992 DuPont's own scientist learned their PFOA casuesd testicular cancer. Testicular cancer is the number one cancer in the fire service. . DuPont is a manufacturer of our gear. They have yet to tell us about this. They are immersed in every aspect of fire fighter cancer research, and teaching prevention methods. In 2006 they notified shareholders that 'any attempt to regulate PFOA would impact their bottom line'. They never shared that with us either. In 2005 the United Steelworkers Union advised Gore also a turnout gear manufacturer, and DuPont, to notify the end user of the harmful effects of PFOA. Neither did.**
See attached (DuPont Shareholders.... page 29)

https://www.cleanlink.com/news/article/Steelworkers-Union-Warn-of-Harm-from-Teflon-Related-Chemical--3717

On September 5, 2017, Environmental Attorney Robert Bilott, C8 Science panel's Dr Paul A Brooks, and Fire Chief Jeff Hermes demanded testing and studies of the EPA, CDC/ATSDR, and US Attorney General on behalf of all first responders US due to their exposure from foam and gear.

https://www.documentcloud.org/documents/3988104-Firefighter-Letter.html

**With NO regulations for these chemicals, manufacturers are under NO obligation to tell us what we are wearing, or spraying. They defiantly refuse to give us that information citing 'proprietary information'. They have even lobbied for and win the right to NOT put warning labels in our turnout gear. See here for the 'Liability Bill'; https://www.femsa.org/whois_femsa/history/ ;**

**Our manufacturers sit on NFPA committees deciding safety standards of gear, from the balance of a helmet to the width of reflective tape. but are under no obligation to advise of the chemicals in our gear. They never did. Not once.**

The newly released PFAS study mentions FF occupational and high risk of exposure numerous times.

Yet the fire service has been omitted from the multi million dollar PFAS Study award.

***We respectfully ask Senator Shaheen and Massachusetts Senator Elizabeth Warren to immediately add this nations fire fighters to the PFAS Registry along with the already chosen active military and veterans.***

**The EPA and NIOSH have been kicking this issue of occupational exposure and setting limits down the road for over 40 years. Last week I shared a 1977 NIOSH report titled " Criteria for a recommended standard - occupational exposure to DECOMPOSITION PRODUCTS of FLUOROCARBON POLYMERS" . Here in 2018 we are seeing the same thing.**

**(see attached cdc_19394_DS1)**

**Under both Democratic and Republican leadership the EPA and CDC have been a catastrophic failure to the fire service. Hasn't anyone wondered about the firefighter they see covered head to toe in A-tripleF?**

**After 40 yeras of undecisivness, the fire service took matters into its own hands. Washington State Council of Fire Fighters and Toxic Free Futer passed SB 6413 (attached) limiting the use PFAS in AFFF and requiring labels be added advising the wearer of PFAS exposure in turnout gear.**

**The Professional Fire Fighters of Massacusetts and Toxics Action Center are both on board with this.**

**Last week the PFFM has voted unanimously to make PFAS legislation a priority.**

**The fire service can do this state to state to protect ourselves and fellow citizens.**

**And we WILL get it done.**

**But isn't that your job?**

**thank you.**