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To: Hunstad, Mary P CIV NAVSEA HQ, SEA 05
CC: Fletcher, Steven G CIV NAVSEA HQ, SEA 05
Sent: 7/19/2016 5:56:33 PM
Subject: DoD Merit meeting notes

Mary,

Here's my meeting notes.

1st meeting:

- 1) Small select group in person, 90 people on phone. Attendance list to be generated with minutes.
- 2) Paul Yaroschak mentioned that NAVSEA is revising the AFFF MILSPEC, and may include different classes to define allowable PFOA limits.
- 3) Steve Korzniowski AFFF presentation:
 - 37 years w/ Dupont/Chemours, now with a consulting company.
 - led Duponts fluorotelomer technology and plant transition from long to short chains. Also involved with EPA at start of their EPA 2010/2015 initiative.
 - Industry is in turmoil in response to latest EPA issuances (i.e. 70PPT limits). He's concerned with how they took a precautionary approach vice a risk based approach to their limits. No toxicity studies, rather a mentality that since PFCs are persistent, they must be bad. Would like to understand how they got these values.
 - Industry was working on further improvements to their chemistries, however all progress has stopped as EPA issuances are considered. Not sure if EPA issuance is final or if there is further room for discussion.
 - Fluorosurfactant with odd-chain formulation ceased manufacturing in 2014 (Dynaz). Only even chains now.
 - Newest chemistries from stewardship program are very clean. Should come up non-detect, however you'll find something if you look close enough.
 - Australia proposed limits: 5ppb PFOA, 0.5ppb PFOS
 - Canada proposed limits: 200ppt max accumulative. (I'm not sure if this is PFOS/PFOA or both)
 - Mentioned the SERDP fluorine-free proposal. Good proposal from his perspective.
 - New York Times article coming out shortly. Tom Cortina, Jennifer Field, Air Force were interviewed.
 - Fluorine AFFF is best option for fire performance, but comes with 2 downsides: chemical mobility and persistence. (Paul Yaroshack spoke up at this point to mention that there may be some discussions on the potential for a fluorine discriminator for shore/ship use - i.e. fluorine AFFF okay for ships, but fluorine-free for shore)
 - I thought this was a real solid presentation. Very knowledgeable individual. Briefing slides should be available later.
- 4) Pete Mullenhard SF6 update. Nothing new.

2nd meeting:

- Purolite presentation on PFC treatment technology
Francis Boodoo - guest speaker director of applied technologies Purolite
Gary Thundercliffe - guest speaker marketing director Purolite
- Presentation focused on groundwater treatment technologies using ion exchange.
 - Most interesting slide dealt with latest PFC detection limits. 4 examples shown were well below the 70PPT limit. They foresee single digit PPT detection limits soon.

V/r,
Dan