



HSAC

Helicopter Safety Advisory Conference

Helideck Committee

General Meeting 12 October 2023

New Orleans, LA



INDUSTRY UPDATES

HeliOffshore, IOGP, ICAO & Other Updates



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HELIOFFSHORE

MMHEL:

- Terms of Reference drafted
- Global trials between Helicopter Operators and Helideck Owners start on November 1st for a period of 3 months
- Feedback (Google Form)
 - Per use of the MMHEL during the trial period
 - At the end of the trial



HELIOFFSHORE Cont'd

Windfarm Recommended Practice

▲ HO-WF-RP-v2.0 – August 2023

▲ Additions:

- 14.21 Flight Data Monitoring – link to EASA SPA.HOFO.145 and HeliOffshore HFDM RP
- 16.7 Cargo HHO to/from vessels
- 19.7 Hoist mission simulator training
- Section 20 – Helicopter Oil & Gas Transport Flights in Proximity of Windfarms



IOGP

IOGP 697 Airfield, Heliports, Helidecks and Facilities

- New version of IOGP Report 690 Offshore Helicopter Operations and specifically IOGP Report 697 Offshore Helidecks and Facilities released in June 2023
- Section for vessel / drill ship / MODU etc. hire/subcontract to be included in future revision of 697



IOGP 697 SAMPLE PAGE

- Purpose
- Expectations
- Processes and practices
- Guidance documents
 - HSAC RPs referenced

3. Design review

3A. Purpose

Ensuring that qualified experts have reviewed the design plans for proposed helidecks and associated facilities (including fuel supply systems.)

3B. Expectations

All aspects of heliports, offshore helidecks, and facilities used for offshore helicopter operations, including structural integrity, meteorological equipment, fire and rescue protection/equipment and emergency evacuation, aircraft refuelling systems, passenger/baggage/freight handling, and security are verified fit for purpose and compliant with regulations and industry standards

3C. Processes and practices

- 3C.1 A Company's designated aviation advisor and/or technical authority for air transport will participate in all preliminary and critical design reviews for the construction or modification of the Company's airfields, heliports, helidecks, and supporting facilities used for offshore helicopter operations.
- 3C.2 This participation includes other levels of expertise as appropriate to ensure operational and safety considerations are identified and addressed at the design stage.

Guidance documents

- ICAO Annex 14, Aerodromes Volume I, Aerodrome Design and Operations
- ICAO Annex 14, Aerodromes, Volume II, Heliports
- ICAO Heliport Manual DOC 9261
- International Chamber of Shipping (ICS) Guide to Helicopter/Ship Operations
- IMO MODU CODE, Construction and equipment of Mobile offshore drilling units
- IOGP Report 322 - Offshore Helideck Checklist
- Regulatory requirements specific to the region/country of operation that are a legal requirement, such as:
 - UK CAP 437, Standards for offshore helicopter landing areas
 - HSAC RP 161, Helideck Design
 - JIG Standard 1.2 and 4 and EI JIG Standard 1530 for Aviation Fuel installations

ICAO

- DOC 9261 which is the guidance document in support of ICAO Annex 14 Vol II is under review to capture minor updates, replace pictures / diagrams with more current examples
- Target for completion of draft was September, IOGP (Mark Small/John Parker) working with ICAO HDWG representative (Kevin Payne, UK CAA) on Offshore elements with Jim Lyons working on Onshore heliports and a third workstream producing a new section 3 for SMS



OTHER

UKCAA(CAP437):

- Amendment 1 to Edition 9 being developed
- Aim for Amd.1 to be issued by year end.

OPITO Americas Industry Forum

- Newly launched Heli Admin standard developed due to CAP 437 Appendix K and now available Training Organizations to apply.
 - Helideck Committee to review if applicable to GoM.
- HOIT + ER training. Findings from the pilot available and another pilot will take place
- OPITO Conference on Houston, TX on 18-Oct-2023



OFFSHORE WIND SUBGROUP UPDATE

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Status Report

- ☒ There is a need for guidance by HSAC regarding offshore helicopter facilities in support of offshore wind operations, and...
- ☒ It was also determined that a separate, additional RP would be the best way forward, and...
- ☒ A sub-committee was formed to work on the content of the RP, and...
- ☒ HSAC nominated RP166 as working title for this effort

DETERMINATION OF ~~RP~~ FOCUS:

- Excellent regulatory framework on (full) helidecks (US & Global)
- Excellent regulatory framework on vessel hoisting (US & Global)

Limited focus and reference to existing codes and standards

- Limited to no guidance on hoisting on WTG transition pieces

No focus as there are limited applications or covered in other hoisting chapters

- Substantial international guidance but no US specific codes for WTG hoisting
- Very limited US and Global guidance on Hoist operations on Sub station

Key focus areas of the new RP



HSAC R166: AVIATION SUPPORT TO OFFSHORE WIND FARM HELI HOISTING AREAS ON THE WIND TURBINE GENERATOR

Heli Hoisting Areas on the Wind Turbine Generator



New HSAC guidance, based on
and derived from international
standards where available.

Main topics:

- Blade & nacelle placement during hoist
- Helicopters Clearance requirements
- Hoist platform criteria and dimension
- Hoist platform safety features
 - Railing
 - Friction
 - Safe hoist lights
 - Visual markings and lighting
- Hoist manual

AFFF SUBGROUP UPDATE

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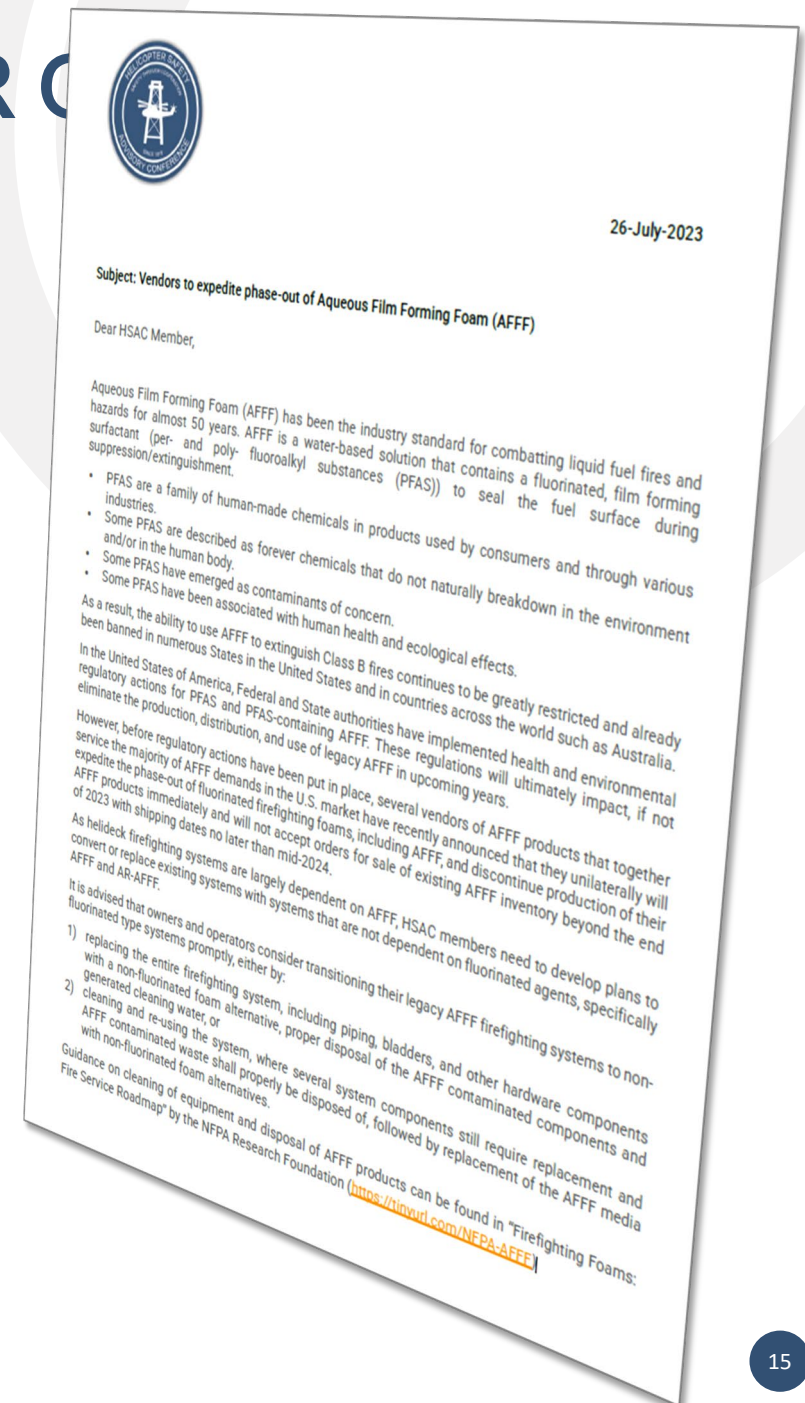
AFFF SUBGROUP UPDATE

- Industry Update & Associated HSAC Letter (Josh Page)
- Update on bi-weekly meetings, drafting new AFFF guidance for HSAC RP's 161, 162, and 163. (Josh Page)
- Experiences and Foam Transition Considerations (Josh Elkins)
- Guest speaker: Wes Larsen, BioLargo Engineering, Science & Technologies

ASK OF HSAC MEMBERS VIA LETTER C

26-JUL-2023

- As helideck firefighting systems are largely dependent on AFFF, HSAC members need to develop plans to convert or replace existing systems with systems that are not dependent on fluorinated agents, specifically AFFF and AR-AFFF.

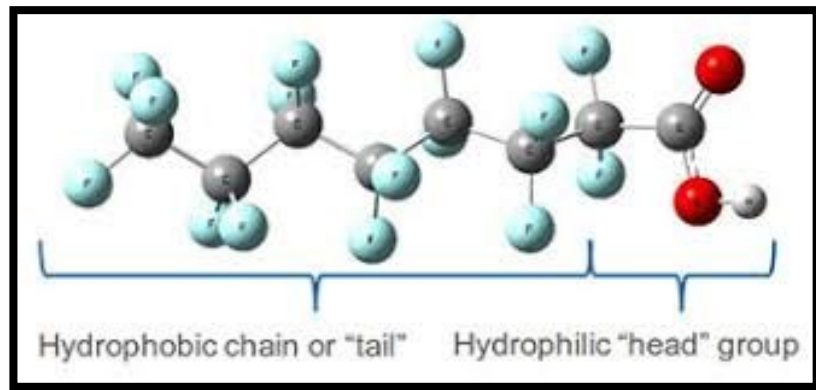


ASK OF HSAC MEMBERS VIA LETTER QNU2023 – CONT'D

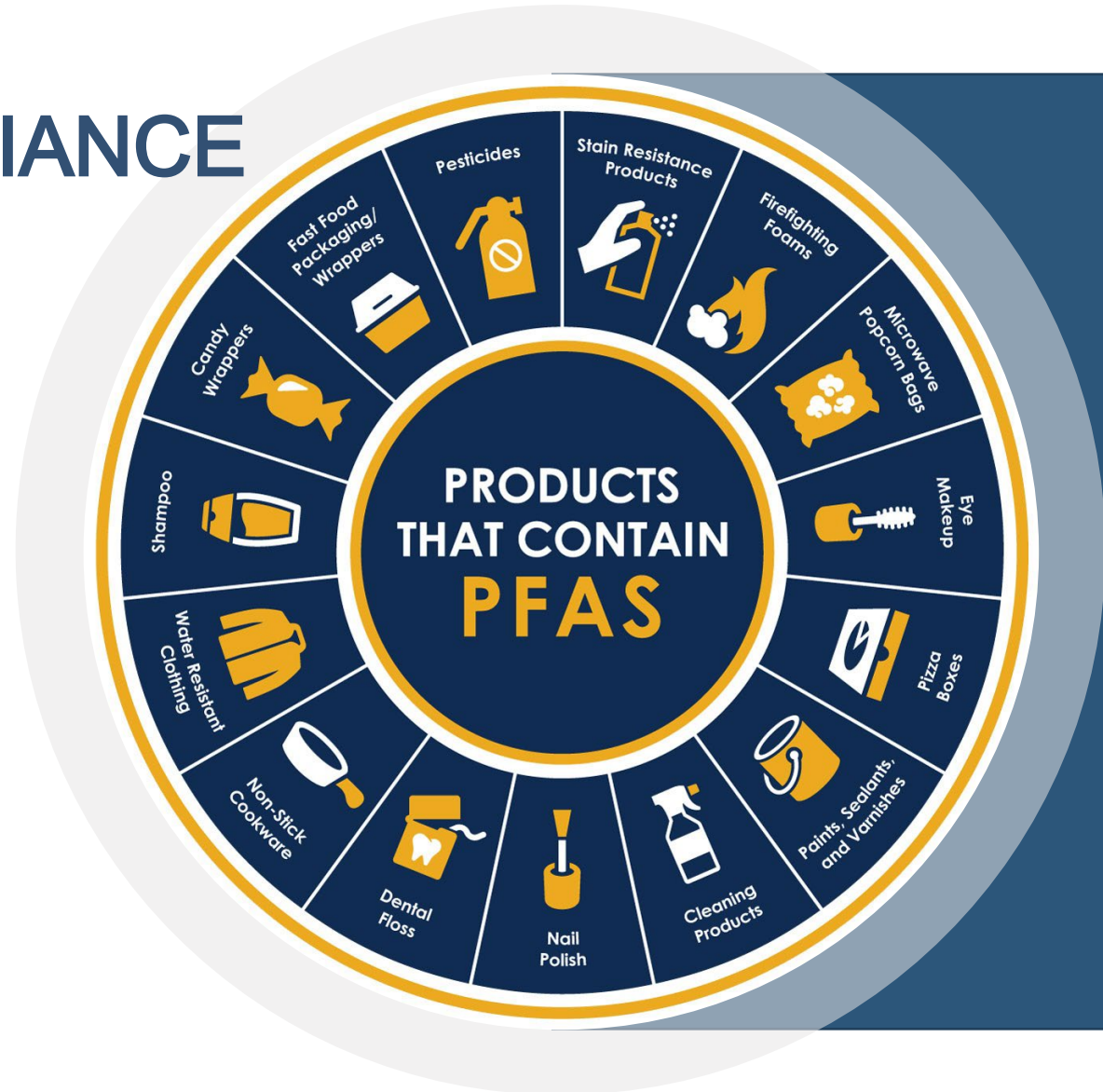
- It is advised that owners and operators consider transitioning their legacy AFFF firefighting systems to non-fluorinated type systems promptly, either by:
 - 1) replacing the entire firefighting system, including piping, bladders, and other hardware components with a non-fluorinated foam alternative, proper disposal of the AFFF contaminated components and generated cleaning water, or
 - 2) cleaning and re-using the system, where several system components still require replacement and AFFF contaminated waste shall properly be disposed of, followed by replacement of the AFFF media with non-fluorinated foam alternatives.
- Guidance on cleaning of equipment and disposal of AFFF products can be found in “Firefighting Foams: Fire Service Roadmap” by the NFPA Research Foundation (<https://tinyurl.com/NFPA-AFFF>)

PFAS REMOVAL AND REGULATORY COMPLIANCE

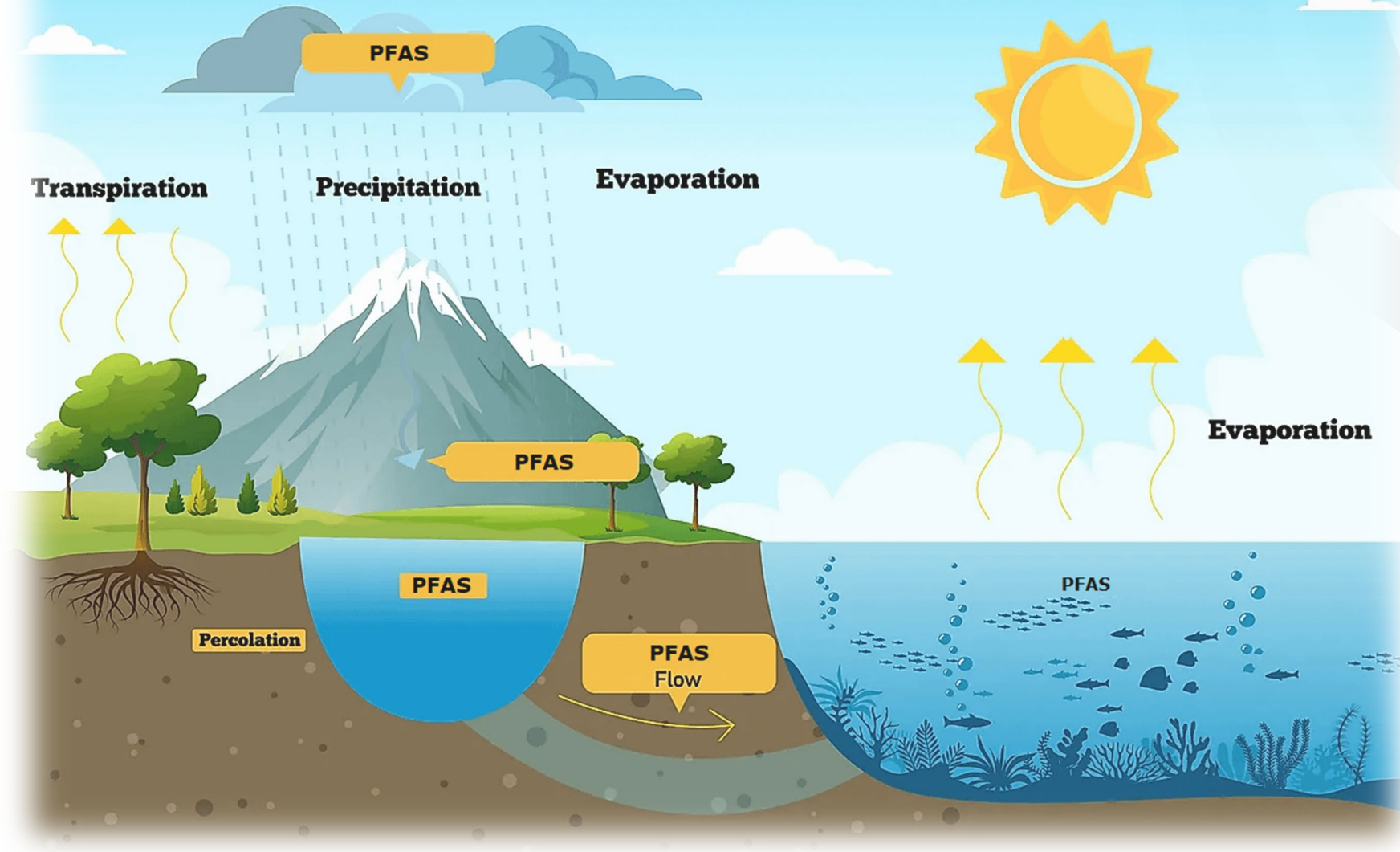
- Presenter: Wes Larsen
- What is PFAS?



- 'Forever Chemicals'



The Chemical Cycle (PFAS Cycle)



The EPA's health advisory level for PFAS in drinking water is **70 parts per trillion**. Earlier this year, the Food & Drug Administration tested for PFAS in a variety of foods. While the sample sizes were small and may not reflect typical contamination levels, here's what the FDA found.





TECHNICAL CHALLENGES TO REMOVE PFAS FROM WATER



Hard to measure

- PFAS are ubiquitous and are used in the wetted parts of some sampling and analytical equipment
- PFAS plates out on many common materials including glass, Teflon, many plastics
- Detection limits of a few parts per trillion are required, requiring extensive sample prep. Each step introduces lack of precision, making the margin of error larger



Hard to reliably capture

- Hydrophobic
- Oleophobic/lipophobic
- Capture on activated carbon is marginal
- Unique surfaceactive properties

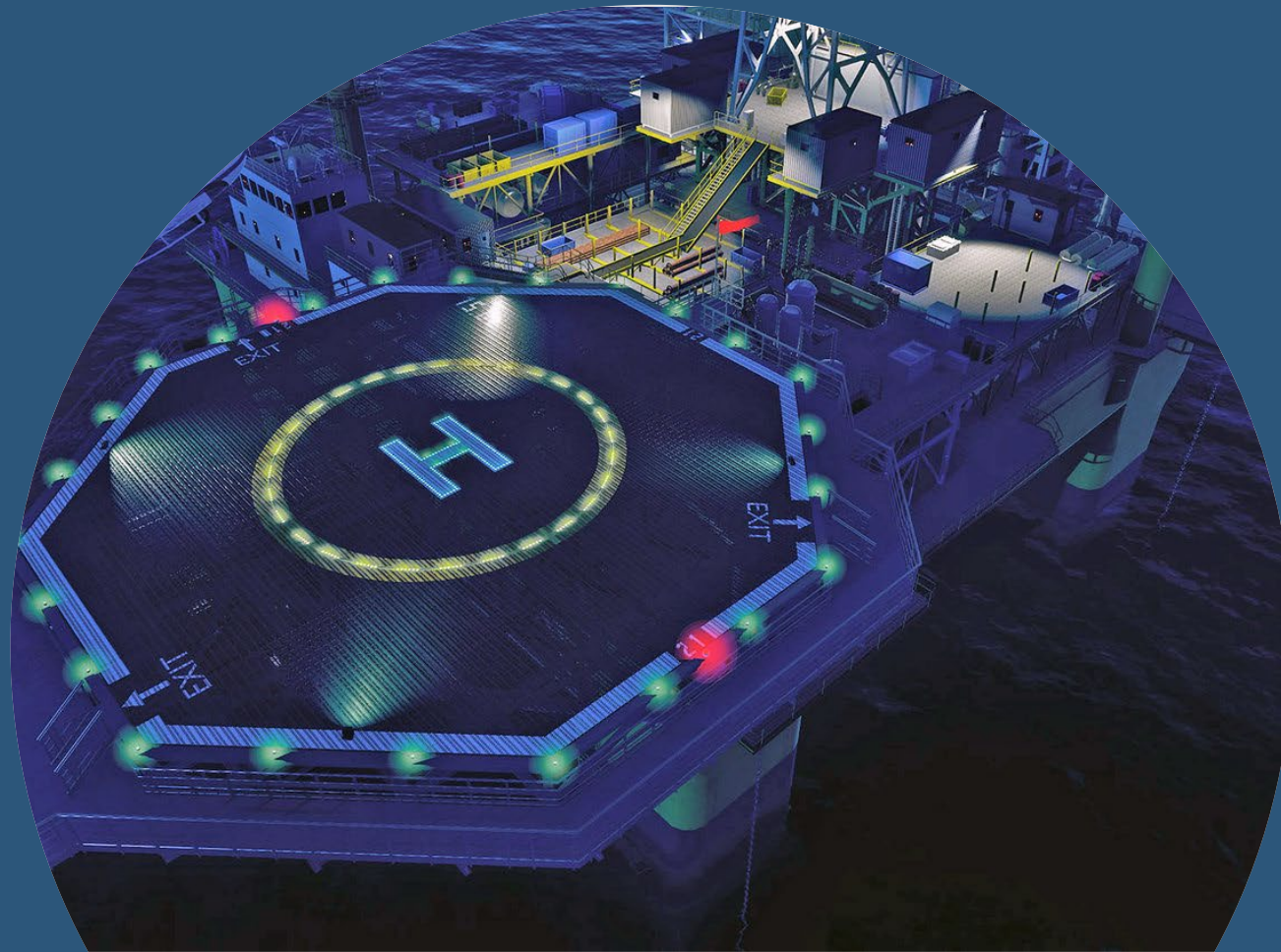


Hard to destroy

- Fluorine/carbon bond resistant to biological treatment
- PFAS ionization potentials over 15, not susceptible to UV treatment, resistant to ozone
- Partial degradation can yield volatile polyfluorinated gases

ENHANCING VISIBILITY OF HELIPAD SURFACES USING PHOTOLUMINESCENT COATINGS

Field Testing Update by Cliff Parker

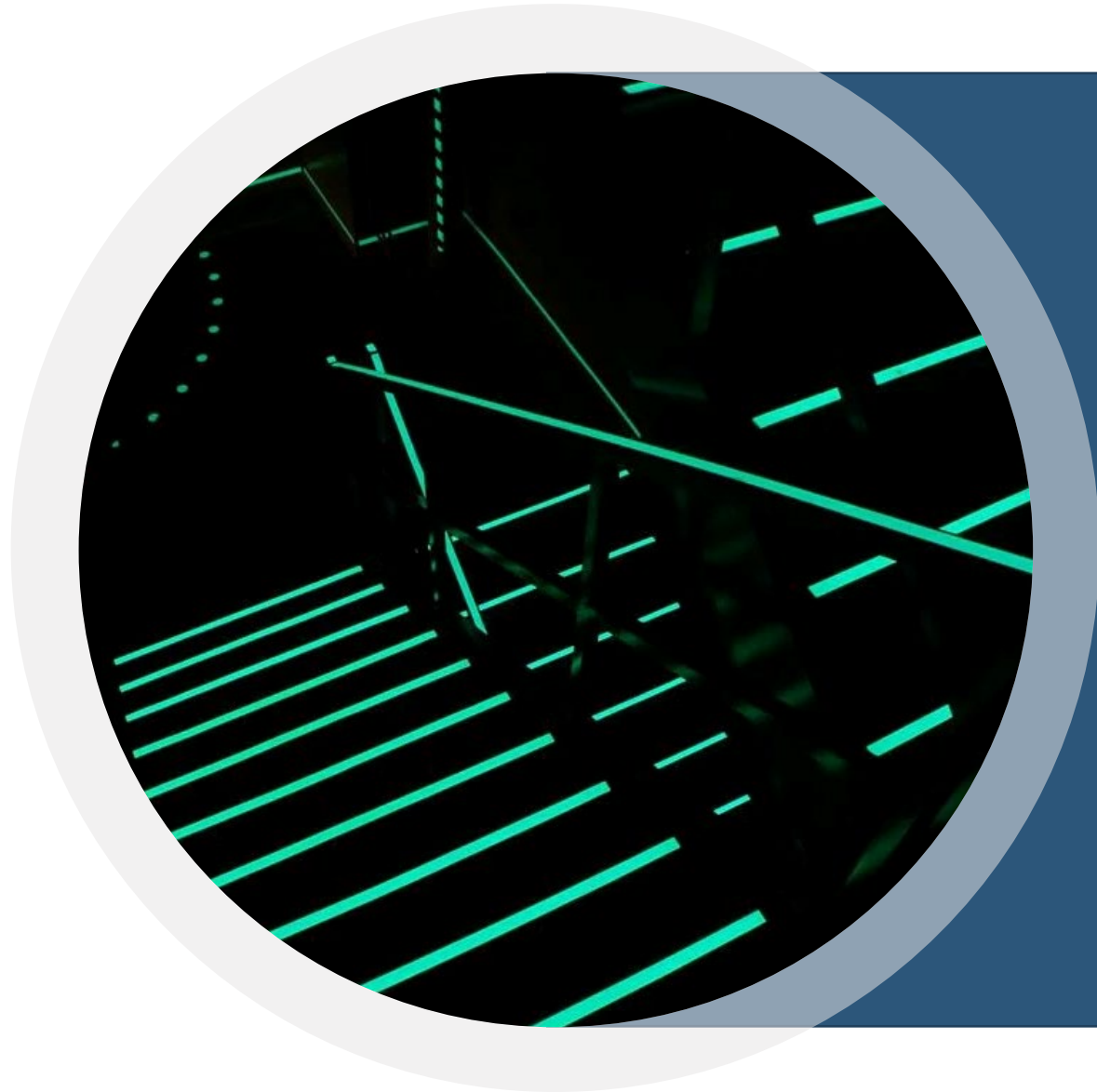


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INTRODUCTION

- Update from recent field tests performed onshore
- Kick-off of new Helideck Committee subcommittee
- Ask for committee approval to continue
- Ask for volunteers to be part of the new sub-committee



HSAC RP UPDATES

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HSAC RP UPDATES

- HSAC RP 161 addition of CFD study guidance
- AFFF Sub-committee revisions to HSAC RPs 161, 162, and 163
- HSAC RP 191 'TBD' Control column and associated guidance material in HSAC RPs 161, 162, 163 & 165



FUTURE WORK

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DISCUSSION FUTURE WORK

- ✦ Finish AFFF contribution to HSAC RP 163 revision
- ✦ HeliOffshore MMHEL incorporation into HSAC RP 163
- ✦ OPITO Helicopter Admin Training and CAP 437 Heli Admin Requirements Review for implications to HSAC RP 160 series.
- ✦ Continue HSAC RP 191 'TBD' replacement by reference material during bi-weekly meetings
- ✦ Continue Offshore Wind Sub-Committee
- ✦ Start 'Fluor luminescent Helideck Paint' Sub-Committee
- ✦ Review of Fuels sections due to recent change in standards.





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THANK YOU!



pbosman@phihelico.com
peter.hesselink@bayardsup.com



<http://www.hsac.org/>