

AECI Specialty Chemicals holds transition to Fluorine free foam demonstration



The AECI Team



Marinus Scott

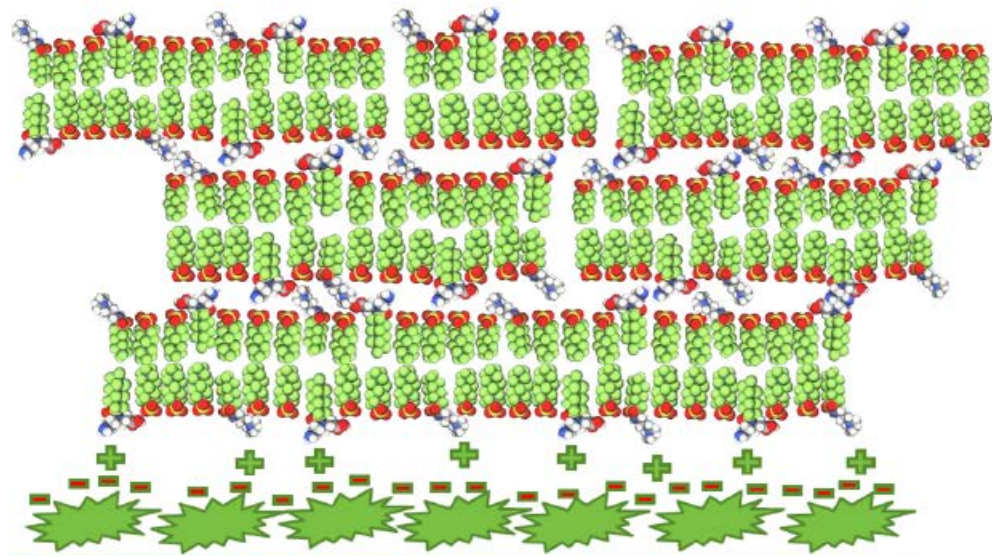
AECI Specialty Chemicals recently hosted an information session explaining the new legislation possibly affecting firefighting foam in the near future. The event, which was held at the Modderfontein Training Centre in Ekurhuleni, included a live demonstration of the new fluorine free foam from Dr Sthamer, showing how effective fluorine free foam performs when compared to AFFF.

Attendees also had the opportunity to visit the AECI Chem Park facility at Chlookop for a plant walk through to see first-hand where the foam is being manufactured.

Marinus Scott, technical sales representative at AECI Specialty Chemicals, shared a presentation on the practical issues when changing over to Fluorine free foams (F3).

Scott started his presentation saying that it is based on the practical implications of the directives. He added that the presentation includes information recently shared by their principle, Dr Thomas Leonhardt, who gave a presentation as section chairman of the

Multi-layered structures form on surfaces



European Committee of the Manufacturers of Fire Protection Equipment and Fire Fighting Vehicles (EUROFEU) at the recent JOIFF seminar at the

National Maritime College of Ireland (NMCI).

Scott also included information shared by Dr Ian Ross from



Dr. STHAMER
FOAM FIGHTS FIRE

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IN FIRE FIGHTING**

**LATEST IN FLUORINE AND
FLUORINE FREE FOAMS AVAILABLE**

**Local manufacturing offering the latest in all
your foam requirements with a full range of
foam products and wetting agents.**

**Help offered in disposal and cleaning of tanks
to get ready for Fluorine Free Foam change over.**

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ALL PRODUCTS CARRY EN1568 APPROVALS
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- ▶ the Manchester Metropolitan University in the UK, from the JOIFF online training session regarding PFAS and its implications.

PFAS: Setting the stage

“Legislators globally tighten the screws on Fluorochemicals. The UN Stockholm Convention of the parties has adopted PFOS, PFOA and recently PFHxS on their list of persistent organic pollutants (POP-List) and more are coming. The European Union is preparing to completely phase out any Fluorochemicals, not just in firefighting foams. China is preparing restrictions on PFAS and the USA has very tight restrictions in many States with more to come. Australia already has restrictions in place and is tightening them”, added Scott.

Scott also explained the complications of changing over from PFAS to Fluorine free foams with regards to the containers, proportioners, pumps, tanks and pipes. “Is it more cost effective to clean or to replace? Smaller tanks may be cheaper to replace than to clean. It is also important to consider the logistics of transporting “hazardous” chemical waste.” He added that all soft seals such as gaskets etc and any plastic parts need to be replaced. “We have produced a check list with the assistance from Dr Sthamer, which we can share.”

Choosing your Fluorine free foam

“As the world is changing and phasing out PFAS fluorinated compounds in firefighting foam, we at AECI Specialty Chemicals can offer the latest technology in Fluorine free foams, formulated by Dr Sthamer based in Hamburg, Germany,” said Scott.

Demonstrating the effect of fighting the fire with Fluorinated foam AFFF 3%



Firefighting foams



Firefighting demonstration with Fluorine free Vapurex 3% extinguishing an hydrocarbon fire (Avgas)

AFFF and AR-AFFF, as well as the latest Fluorine free foams

With AECI's manufacturing facility in Chloorkop, Johannesburg, the business can offer Fluorine containing foams including AFFF and AR-AFFF, as well as the latest Fluorine free foams. With certain market sectors phasing Fluorine foams out over the next 10 years, AECI

will continue to manufacture these foams to service customers until such a time where it is no longer possible to do so. This will allow for more adequate planning and budgeting time to do it right the first time.

What AECI can do for you?

AECI Specialty Chemicals is offering customers a complete

turnkey solution in changing over to the latest Fluorine free foams removing the uncertainty around a fairly new legislative requirement. With its local professionally equipped laboratories foams can be analysed and tested and feedback and recommendations provided to improve the life of the product. ▶



Demonstration with AECI's RLF 4 A class foam showing how the foam changes as you add or reduce air

Firefighting foams



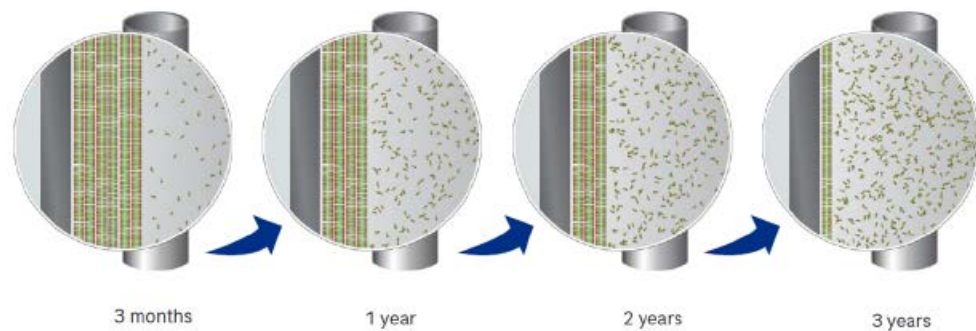
Demonstration extinguishing an alcohol fire using Fluorine Free alcohol resistant Vapurex AR 3X3 foam

- ▶ “Being audited by Dr Sthamer on a regular basis AECL is proud to say that it is the only company globally to have certification to manufacture these products”, said Scott.

Celebrating a 100-year anniversary this year, indicates the company’s commitment to the industry.

Staff are experienced to handle enquiries and challenges and facilities manufacture world class products consistently. ⚠

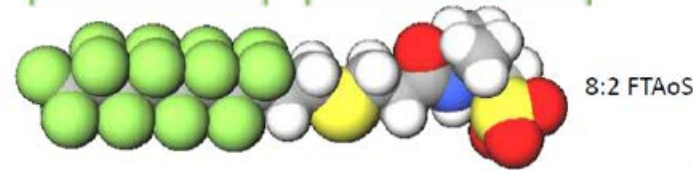
Projected Rebound of PFAS into F3 Foams



Poly-
(Precursors)

Biotransformation / Chemical Oxidation

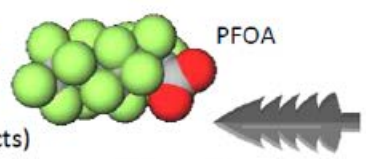
Persistent perfluorinated Non-fluorinated - Biologically/Chemically removed



Stone arrowhead, like perfluorinated section of molecule, persists forever

Wooden shaft, like non-fluorinated section of molecule, is degraded so rots away in ground / in vivo

Per-
(Terminal products)



Perfluoroalkly acid formed from precursor persists indefinitely as “chemical rocks”. like stone arrowheads

Practical issues on change over to Fluorine free foams