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Professional Development Program

## Firefighter safety research - bringing the lab to the streets

**Date:** Friday 30 August 2019

**Venue:** Melbourne Convention and Exhibition Centre

**Time:** 9.00am–3.30pm

**Cost:** \$150 +GST

To register please visit [www.afaconference.com.au/register](http://www.afaconference.com.au/register)

### Event overview:

Underwriters Laboratories, the leading fire safety research institute in the US, together with the United States' National Institute of Standards and Technology, have conducted furnace and full-scale fire testing in recent years to understand the modern fire environment. Like in Australia, this modern fire environment is the work environment for firefighters across the United States and Canada. For firefighters to conduct safer operations, it is vital they understand their work environment and the various factors that can influence fire ground decision making and available tactical considerations.

In this one-day workshop, instructors **Derek Alkonis** and **Sean DeCrane**, UL Firefighter Safety Research Institute (UL FSRI) Advisory Board members, will review the research work of the Institute.

This research has focused on firefighter safety through building firefighter knowledge. The goal is not to develop individual best practices but rather to develop research-based reports and educational programs to provide fire officers and firefighters the knowledge they need to make educated decisions based on the conditions on the fireground.

Topics discussed during the session will include:

- the impact of ventilation on fire behavior in compartment fires
- the results of the fire attack study which developed scenarios to measure the impact of water application to the occupant experience
- the impact of specific fire ground assignments on the risks to firefighters related to cardiovascular stress and carcinogenic exposures
- a review of the impact of fire on building materials
- full-scale fire scenarios measuring ventilation strategies and the application of positive-pressure tactics.

The Forum will focus on lessons learned from numerous research projects over the past 12 years, and will utilise test videos, data and real-world reviews to illustrate how the modern fire environment impacts firefighters.

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See over for forum agenda

*A shift to the new norm: riding the wave of change*

This Forum will outline how metropolitan fire departments and brigades in the US have utilised this research and implemented changes to their Standard Operating Procedures and operational tactics in response to the research. In many cases it doesn't need to be wholesale changes, rather it is getting back to the roots of operations to improve work health and safety outcomes.

### Who should attend?

- Operational firefighters and incident commanders
- Fire engineers who are involved in building design and fire safety engineering
- Fire manufacturing industry.

### Program

Time	Activity
8.45am	Registration open
9.00am	<b>Welcome and introductions</b> <i>Mark Reilly, Institution of Fire Engineers Australia</i>
9.15am	<b>Understanding the modern fire environment</b> <i>Sean DeCrane, UL Firefighter Safety Research Institute</i>
10.30am	Morning tea
10.45am	<b>20 tactical considerations for operational firefighters from firefighter research</b> <i>Derek Alkonis, UL Firefighter Safety Research Institute</i>
12.30pm	Lunch
1.15pm	<b>Understanding the flow path</b> <i>Sean DeCrane, UL Firefighter Safety Research Institute</i>
2.15pm	Session 4
3.00pm	<b>Panel: A changing environment – implications for firefighting operations and building design in Australia</b> <i>Mark Reilly, Adam Dalrymple, Sean DeCrane, Derek Alkonis</i>

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