**WHY PROFESSOR DAVID PURSER NEEDS TO BE QUESTIONED OVER HIS NEUTRALITY AS TOXICOLOGIST TO THE GRENFELL INQUIRY**

**1. Professor Purser's support for Chemtura's lawsuit against the State of California**

Chemtura (now Lanxess) is one of the 3 major world-wide flame retardant producers, that are all active in the UK as well as the USA. In 2013, the State of California went out to consultation on making changes to its (and de facto the rest of the USA's) furniture flammability standard, TB117. The major proposal was to remove the open flame (match) test and provide just a smoulder test. One key result of this would be that flame retardant chemicals would no longer be required in Californian/USA upholstered furniture. This would incur massive profit losses for the flame retardant industry.

<http://chemturaflameretardants.com/CaliforniaLegislation.html> - click on ‘National and International Flammability Experts’ to find Professor Purser put his name to the following statement [original emphasis]:

“[The State of California needs to] Address both Smoldering and Open Flame Ignition Sources: **We advise and urge the State of California to take meaningful action to address both smoldering and open flame ignition sources of upholstered furniture fires**, and not allow a regulation to be promulgated that could well result in more fires, with related injuries, deaths and property loss.”

If this petition had been accepted, then the very large market for flame retardant chemicals would have been preserved. In the event, California went ahead with the proposals and over the past year or so more than a dozen US States have gone further by actually banning flame retardants from furniture, especially children's mattresses, because they are so toxic.

**2. Professor Purser's work with the National Association of State Fire Marshals**

From Prof. Purser's LinkedIn page - <https://www.linkedin.com/in/david-purser-36316536/?originalSubdomain=uk>):

"National Association of State Fire Marshals NASFM (USA) Member of Scientific Advisory Committee (2009-2013)"

The NASFM was/is funded by Chemtura for the main purpose of ensuring that fire safety legislation in the USA requires the use of flame retardant chemicals. Below is an extract from IPEN's "A PUBLIC INTEREST GUIDE TO TOXIC FLAME RETARDANT CHEMICALS": <https://ipen.org/pdfs/ipen_flame_retardants_v2_6.pdf>

**5.3 ThE TobAcco INDuSTry ShIfTED ATTENTIoN AWAy from cIGArETTES To flAmE rETArDANT furNITurE AS ThE SoluTIoN To houSE fIrES INSTEAD of fIrE-SAfE cIGArETTES**

In a time of rising numbers of house fires due to cigarette smoking, the tobacco industry sought to focus blame and a solution away from the actual cause of the fires. As the *Chicago Tribune* notes, “...tobacco executives didn’t care for one obvious solution: create a ‘fire-safe’ cigarette, one less likely to start a blaze...the industry insisted it could not make a fire-safe cigarette that would still appeal to smokers and instead promoted flame retardant furniture — shifting attention to the couches and chairs that were going up in flames, but executives realized they lacked credibility, especially when burn victims and firefighters were pushing for changes to cigarettes. So big tobacco launched an aggres sive and cunning campaign to ‘neutralize’ firefighting organizations and persuade these far more trusted groups to adopt tobacco’s cause as their own.” Peter Sparber, a former tobacco industry executive served as the organizer of the US national Association of State fire marshals and the *Tribune* notes that, “he shaped its requests for federal rules requiring flame retardant furniture and fed the marshals tobacco’s arguments for why altering furniture was a more effective way to prevent fires than altering cigarettes... the fire marshals’ actions helped big tobacco fend off fire-safe requirements for years.”

**5.4 ThE chEmIcAl INDuSTry PAID fIrE mArShAlS To lobby ASIAN ElEcTroNIcS mANufAcTurErS To ADD chEmIcAlS mArkETED AS flAmE rETArDANTS To ThEIr ProDucTS**The *Chicago Tribune* reports that the chemical industry paid for fire marshals’ lobbying trips to Japan, Korea, and taiwan to convince manufacturers to add chemicals to plastic components of computer monitors and tvs.

**5.5 ThE chEmIcAl INDuSTry PAID fIrE mArShAlS To lobby for GlobAl fIrE STANDArDS ENcourAGING uSE of chEmIcAlS mArkETED AS flAmE rETArDANTS**As the *Chicago Tribune* notes, “the marshals later pushed for worldwide standards requiring that the plastic casings of electronics resist a candle flame and posted Inter- net videos comparing name-brand computer monitors that went up in flames with those that didn’t.” the industry waged this campaign within the International electrotechnical Commission (IeC). IeC is a standards setting body based in Switzerland with a technical committee (tC108) that focuses on safety standards including fire, electrical, and label- ing. the chemical industry pressured the IeC to adopt a candle flame ignition standard in electronics which would require addition of their chemicals in plastics parts of elec tronic equipment. opponents of the proposal included the US Consumer Product Safety Commission, US national fire Protection Association, Consumer electronics Associa tion, and the telecommunications Industry Association. they cited information that concluded that candle flames were not appropriate or realistic as a standard and that no fire safety benefit would result from using this standard. despite strong opposition, the chemical industry proceeded to propose and pressure for passage of the standard. In 2008, international civil society networks raised awareness among tC108 members about the lack of fire safety benefit, and the measure was defeated. In may 2012 and march 2013, similar measures were defeated again. If the proposals had succeeded, then millions of kilograms of toxic flame retardant chemicals would have been dispersed globally in electronic products.

The NationaL Association of State Fire Marshals' statement in support of Chemtura's efforts to prevent the TB117 open flame test being removed:

***National Association of State Fire Marshals:*** “The CPSC Must Grasp the Opportunity to Address Open Flame Ignitions of Upholstered Furniture.” “...the CPSC must grasp the opportunity to address open flame ignitions of upholstered furniture as part of this rulemaking. The CPSC’s own analysis, and that of the National Fire Protection Association (NFPA), have indicated that ignition of upholstered furniture by non-smoldering sources is significant. As the NFPA representative pointed out in her April 25 presentation, non- cigarette ignitions of upholstered furniture accounted for nearly 80 percent of the fires and 55 percent of fire deaths each year from 2006 to 2010.” (National Association of State Fire Marshals Statement to the U.S. Consumer Products Safety Commission, June 27, 2013

Statement by "National and International Flammability Experts" (via Chemtura's petition) in regard to the proposed changes to TB117:

***National and International Flammability Experts:***“Address both Smoldering and Open Flame Ignition Sources.” “We advise and urge the State of California to take meaningful action to address both smoldering and open flame ignition sources of upholstered furniture fires, and not allow a regulation to be promulgated that could well result in more fires, with related injuries, deaths and property loss.” (Comments of Margaret Simonson McNamee, Ph.D. (SP technical Research Institute of Sweden), Gordon Damant (Retired, Bureau Chief, California Bureau of Home Furnishings and Thermal Insulation), Roy Deppa, P.E., (Retired, US Consumer Product Safety Commission), Nicholas Marchica (Retired, US Consumer Product Safety Commission), David Purser, Ph.D. (Retired, Fire and Risk Sciences Division, UK Building Research Establishment) and Steven Spivak (Professor Emeritus, Fire Protection Engineering, University of Maryland) to Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation on proposed changes to TB 117, March 25, 2013)

From "The 2013 Pulitzer Prize Finalist (and eventual winner) in Investigative Reporting" – the Chicago Tribune:

John Dean, the [National Association of State] fire marshals' president from 2006 to 2008, said that during his time the marshals were not being swayed by chemical companies and did not focus solely on flame retardants. "The fire marshals were concerned about preventing fires, and we didn't really care how they did it," said Dean, a retired state fire marshal from Maine.

But the marshals did press for national furniture flammability rules that would have increased the use of flame retardant foam in the U.S., even though federal scientists had concluded that this type of chemically treated foam didn't provide any meaningful protection in fires.

To sway legislators and opponents, the marshals and Sparber characterized couches and easy chairs as dangers to society, sometimes referring to the foam inside cushions as "solid gasoline."

The marshals just last year helped defeat a crucial bill in California that would have reduced flame retardants in products nationwide. The association's president at the time wrote a letter opposing the legislation. A lobbyist for the Citizens for Fire Safety Institute, a front group for the largest makers of flame retardants, read excerpts of the letter at the hearing where the bill was voted down.

And who remains a financial sponsor of the fire marshals, with its logo on the group's home page?

Chemtura, one of the world's largest producers of flame retardants.

**3. Professor David Purser's company's consultation return to the State of California regarding plans to drop the open flame test**

**Z. In a letter dated March 25, 2013, SP Technical Research Institute of Sweden, Damant & Associates, Marchica & Deppa LLC, Hartford Environmental Research, and Stantex Consultants submitted comments on the following:**

**Comment Summary 1:** The commenters suggest that fire data collection systems depict inaccurate information related to the number of fires ignited by open­flame sources. Thus, the data analyses performed by the Bureau underestimate the significance of open­flame ignitions of upholstered furniture.

**Response:** The Bureau rejects this comment. As stated in the ISOR, the Bureau relied on available fire statistics data both nationally and for California. The United States Department of Homeland Security, U.S. Fire Administration found that the fatality rate was more than seven times greater in a smoking related fire than non­ smoking related residential fires; the injury rate is triple that of a non­smoking related fires. TB 117­2013 addresses the predominant source of upholstered furniture fire deaths and injuries which are smoldering materials. Further, TB 117­2013 addresses the flammability performance of the upholstery cover fabric which is where fires begin, whereas the current standard predominantly focuses on open flame testing of filling materials. As stated in the ISOR, the CPSC concluded that upholstery cover fabrics play a more important role in fire behavior performance than filling materials.

**Comment Summary 2:** Given that upholstered furniture represents the major fuel load in most homes, preventing or delaying the full involvement of upholstered furniture will save a significant number of lives currently lost in residential fire – from both smoldering and open flame ignitions.

Limiting attention to only smolder resistant cover fabrics without a concurrent requirement to protect the furniture against open flame ignitions could result in more frequent and more severe open flame fires than currently are recorded. Although smoldering ignition rates have been expected to decrease further, there are no current trends that are expected to cause a decrease in the number of open flame ignitions of upholstered furniture.

**Response:** The Bureau rejects this comment. As stated in the ISOR, the Bureau relied on available fire statistics data both nationally and for California. The United States Department of Homeland Security, U.S. Fire Administration found that the fatality rate was more than seven times greater in a smoking related fire than non­ smoking related residential fires; the injury rate is triple that of a non­smoking related fires. TB 117­2013 addresses the predominant source of upholstered furniture fire deaths and injuries which are smoldering materials. Further, TB 117­2013 addresses the flammability performance of the upholstery cover fabric which is where fires begin, whereas the current standard predominantly focuses on open flame testing of filling materials. As stated in the ISOR, the CPSC concluded that upholstery cover fabrics play a more important role in fire behavior performance than filling materials.

**Comment Summary 3:** Placing requirements on the design and fire performance of upholstered furniture would prevent many, if not most, of the hundreds of deaths in the U.S. each year. As barriers would make upholstered furniture much safer, barriers may need to be specified as a design requirement to avoid assumptions that performance requirements may be met with flame retardants. Barriers are economically feasible at $10­-12 per piece of furniture. The fire science community and the upholstered furniture industry have known how to make fire­resistant furniture but have no incentive to use these methods absent a requirement to do so.

The commenters point to the direction being considered by the staff of the CPSC with regard to the 2008 Notice of Proposed Rulemaking on Upholstered Furniture Flammability “CPSC’s testing indicates significant promise for barriers as a means to address the flammability risk posed by upholstered furniture.”

**Response:** The Bureau rejects this comment. The Bureau will conduct a two­year study on emerging fire barrier technologies that can be used in upholstered furniture with an open flame test method. The Bureau will continue to evaluate these and other appropriate technologies and test methods to keep abreast of any new information that would assist the Bureau in further protecting California consumers.

**4. Conclusions**

The above evidence demonstrates the long history of how the flame retardant industry has strongly tried to influence fire regulations in the USA towards extending its markets. The same companies do the same in the UK (evidence, links, etc, available on request; also, for example, check witness statements and sessions from the Environmental Audit Committee's current inquiry into toxic chemicals in everday life: <https://www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/inquiries/parliament-2017/toxic-chemicals-in-everyday-life-17-19/>).

We suggest this quotation from the California consulation return by Professor Purser's company (and others) exemplifies the potential conflict of interests he presents as toxicologist to your inquiry:

Given that upholstered furniture represents the major fuel load in most homes, preventing or delaying the full involvement of upholstered furniture will save a significant number of lives currently lost in residential fire – from both smoldering and open flame ignitions.

Limiting attention to only smolder resistant cover fabrics without a concurrent requirement to protect the furniture against open flame ignitions could result in more frequent and more severe open flame fires than currently are recorded. Although smoldering ignition rates have been expected to decrease further, there are no current trends that are expected to cause a decrease in the number of open flame ignitions of upholstered furniture.

Upholstered furniture was also the major fuel load in Grenfell Tower. The argument Purser makes here is that an open flame/match requirement is essential for saving "a significant number of lives currently lost in residential fire". However, there is a contradiction here: Professor Purser is well aware that the current UK match/open flame test fails in practice by around 90% - as proved by the Department for Business in 2014. Prof. Purser's colleague, Anna Stec, is well aware of this fact too, since she worked closely with Terry Edge, lead official at the Department for Business during the work on changes to the Furniture Regulations that would have made UK furniture fire-safe. Changes that were and are being blocked by the flame retardant industry.

We are not aware of Professor Purser even mentioning the failure of the UK's open flame test in his witness statement to the Inquiry. This is odd, since he clearly believes that without an open flame test "significant numbers" of death will occur.

We suggest that a possible reason for Prof. Purser's inability to mention the failure of the UK's current match/open flame test is that he's well aware that the best solution – advocated by many green lobby groups and as provided in strong questioning of industry by the Environmental Audit Committee's at their current inquiry – is for the UK to get in line with the USA and the rest of Europe and drop its open flame test, especially in light of the fact that Prof. Purser's claims that the open flame test saves lives are completely unsupported by evidence.

But the match/open flame test does lead to huge profits for the flame retardant industry. At a rough estimate, it currently makes around £300m per year from the Furniture Regulations.

Professor Purser is a visiting professor at UCLAN and has done a lot of work with the university. UCLAN is funded by the flame retardant industry. For some years now it has been supporting the introduction of "green" polymeric flame retardants, with Professor Purser publishing in support of them. Keeping the UK's match test in place will keep open the market for these new flame retardants.

In short, there is the possibility of Professor Purser playing down the levels of toxic fumes produced by upholstered furniture burning in Grenfell Tower because that could damage the market for new "green" flame retardants. If Professor Purser's main aim is to reduce toxic fires, he can and should support moves for the UK to drop all but its smouldering test (which can be met without flame retardants at all). The fact he has not done so needs to be investigated, otherwise there is a considerable danger that his report on the toxicology of the Grenfell Tower fire will not be unbiased or complete.