

FISC Bulletin Board

Jerry Rudden, Chair
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IAAI Fire Investigation Standards Committee

The following, prepared by FISC member, Ross Brogan, Inspector, New South Wales Fire Brigades, Australia, concerns the approach to fire investigation standards employed in Australia and New Zealand.

One of the roles of the members of the Editorial Board of the *Fire & Arson Investigator* magazine is to review articles submitted for publication, to ascertain technical content suitability and, to check for international content and suitability. After all, our Association is an international association; does the content inform the members of how it is done in other countries, without too much confusion related to different terminology [with a motor vehicle – is it a boot or a trunk; is it a bonnet or a hood? Who cares? As long as we all understand what is being imparted!

“Standards” are, like the term implies, something that is done in a uniform fashion, no matter where you are. Standards are followed to maintain consistency in whatever it is that we do. If a standard and uniform approach has been adopted to a specific role or work practice, it is usually followed wherever that practice is carried out [why re-invent the wheel – so to speak?]

It is no different in Australia. The recognised standards of fire investigation practices used in the USA, the United Kingdom, Israel, New Zealand, Canada, etc., taught and preached by recognised authors of technical manuals and texts such as *Kirk's Fire Investigation*, *IFE Principles of Fire Investigation*, *Coles' Investigation of Motor Vehicle Fires*, *NFPA 921* and *ATFE/USFA arson/fire and evidence manuals*, amongst others; are recognised and utilised for fire investigation throughout the States and Territories of Australia, and in New Zealand.

Throughout Australia and New Zealand the numerous Fire Brigades covering all of these two countries are members of the Australasian (Australia & New Zealand) Fire Authorities Council [AFAC]. AFAC has an organised group consisting of representatives from all member fire services' fire investigation bodies, the Australasian Fire Investigation & Analysis Group (AFIAG). This group has the objective of establishing a uniform standard for fire investigation training and operational guidelines for all members throughout both countries. This objective has two ultimate aims; 1. Establish a uniform set of guidelines for operational investigators to follow at fire scenes; and, 2. Establish a uniform training regime, so that one investigator may transfer between brigades (or countries), with standard training qualifications; and the job gets done in a uniform fashion - everywhere. In all, the final outcome will produce a standard set of data on fire origin and cause statistics throughout all fire brigades; ensuring a uniform approach to both fire prevention and, arson mitigation.

AFIAG has adopted the standard approach of using NFPA (Standard) 1033 as the background to the basic competency qualifications required by investigators in Australia and New Zealand. NFPA (Guide) 921 has been adopted as the standard technical document to be used as a reference document to assist with training of investigators and with operational fire investigations conducted. A Diploma of Fire Investigation has been developed, in conjunction with the AFIAG and AFAC to assist with the aims and objectives of the group.

Charles Sturt University, in Australia, offers fire investigation training at University Graduate Degree level. The University currently has students enrolled from all over Australia and New Zealand, with interest shown from numerous other countries. The courses offered begin at Graduate Certificate level, progress to Graduate Diploma and can be rounded off with a Master of Arts (Fire Investigation) Degree. The course programme has been developed with *NFPA 1033* as a basis, formulating basic levels of competency for fire investigators in-line with international standards. The set texts for study material include, *NFPA 921*, *Kirk's Fire Investigation*, *IFE Principles of Fire Investigation*, *Mundays' Safety at Scenes of Fire* and *Brannigan Building Construction for the Fire Service* (amongst others in specialty subjects). One of the objectives of the course coordinators is to promote the use of the principles detailed in *NFPA 921*, particularly the “Basic Methodology” contained in Chapter 4 (2004), for conducting a fire investigation by the “Systematic” or “Scientific” method. This methodology is recommended by *NFPA 921* as a universal method for conducting a fire investigation and involves the following steps – Recognize the need – Define the problem – Collect data – Analyse the data – Develop a hypothesis – Test the hypothesis – Select the final hypothesis; a sound and tested method that should be followed as a universal practice.

As a reference document, *NFPA 921* has not been used very widely in the court system in Australia, up to this point in time; certainly not as widely used as it is in the USA system. It is used by prosecutors and defence counsel, but not as a matter of course, and certainly not as much as it could be to maintain a standard and uniformity in court cases, either civil or criminal.

After involvement with reviewing recent articles written for the *Fire & Arson Investigator* magazine, on LP gas safety and investigations, inquiries in Australia showed that many NFPA & UL Standards although recognized in Australia and New Zealand are not used as a “Standard” due to Australia and New Zealand having their own Standards system. It was found that although the NFPA & UL standards (NFPA 54, NFPA 58 – relating to fuel gases, and, UL 144 relating to LPG regulators) are recognized throughout the gas industry and certain parts of these standards are complied with, and, in conjunction with the relevant Australian or New Zealand standard, provide greater compliance than required; therefore greater safety for the end user. [As

a matter of interest, up until several years ago, battery operated home (single-point) smoke alarms sold in Australia were recommended for use by fire services throughout the country if they complied with UL (Underwriters Laboratories) or BS (British Standards) standards testing compliance; as Australia did not have a Australian Standard for smoke alarms] Many other NFPA and UL standards are recognized in Australia and New Zealand in this way.

In the court system in Australia the ethical conduct of fire investigators is covered by the “Rules of Evidence” under the coverage of “Expert Opinion Evidence” for all types of expert witnesses, not just fire investigators. Firstly, for an opinion from an investigator to be accepted as evidence the report from the expert must be accompanied by a comprehensive CV, detailing the qualifications of the expert; specifically the expertise and qualifications of the expert to give opinion evidence on the matter at hand (fire origin and cause in this case). Secondly, the rules stipulate that the expert is appearing in court to “assist the court” and that the expert is presenting evidence in the matter on behalf of the court and not on behalf of the person/company engaging the expert. Thirdly, if there are any points of contention between opposing experts in any case the court rules indicate that the court can order the experts to take part in a conference to try to agree on any points that cause that conflict of opinion; and, come to agreement on those points. If there are points that cannot be agreed upon, then a written statement must be submitted detailing the reasons why those points cannot be agreed upon (each experts’ point of view on each point). Any areas that cannot be agreed upon are put to the jury, magistrate or judge for deliberation. As an added precaution, if any of the lawyers are sceptical regarding the qualifications put forward by the experts they can request the court to hold a “Voire Dire.” This is where the presiding Judge/Magistrate and both prosecuting and defence counsel question the expert regarding the qualifications and expertise in order to satisfy the court that the qualifications are genuine and acceptable to allow the evidence to be presented. This is where the qualifications gained by fire investigators, such as the AFAC Diploma or the Charles Sturt Degrees come into play to assist the witness establish expert witness status.

The IAAI Certified Fire Investigator (CFI) qualification is not universally recognized in the court system in Australia, as it is not really understood to a great degree; it is seen as something of a mystery, “something from overseas.” We in Australia are trying to change that attitude by explaining the qualification as much as possible when questioned and, by presentations at fire investigation conferences. Without acceptance by the industry in Australia, and the people in the industry, makes it difficult as well. Currently Australia has three CFIs (all in the same state – New South Wales) and New Zealand one.

Hopefully we are all on the same track, working toward arson prevention/mitigation and safety of the community – at different ends of the globe. The IAAI is well represented in this part of the world by members filling positions in numerous committees, such as Wildfire Investigations, Training & Education, FISC, Ethics, Membership, Education Foundation and many others.

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Ross is an active member of the following IAAI committees:
Fire Investigations Standards Committee (FISC)
Membership Liaison NSW/Victoria
Training & Education Committee
Fire & Arson Investigator Magazine Editorial Board.