

NATIONAL WILDLAND FIRE INVESTIGATOR STANDARDS

INTRODUCTION

This paper will summarize recent changes in the field of fire investigation that are having a dramatic impact on the way fire investigations will be conducted in the immediate future. These changes include two court decisions, (*Merrill-Dow Pharmaceuticals, Inc. v. Daubert*; *Kumho Tire Co. v. Carmichael*), revisions and proposed additions to the NFPA 921 and 1033 chapters, (Guide to Fire Investigations and Explosions, 4/01; Professional Qualifications for Fire Investigator, 8/98) and a current influx of CFIs, (Certified Fire Investigator), into the private sector who will be available to defense teams, particularly on high value and serious fire and arson cases. The predicted retirement of tenured fire investigators over the next five years will require a significant effort to replace them with qualified personnel as well.

After describing these changes, we will outline a recommended solution that will allow us to continue with a professional fire investigation effort. Failure to react to these changes carries a strong potential for our being unable to discharge our responsibility to conduct legally supportable fire investigations. This failure will potentially result in the inability to civilly collect literally millions of dollars in suppression and damage costs and to successfully prosecute criminal violators, including dangerous serial arsonists.

RECENT COURT DECISIONS

Two recent Supreme Court decisions, *Daubert* and *Carmichael*, are driving significant changes in the field of fire investigation. In brief, these two decisions have made the admissibility of expert witness testimony subject to increased scrutiny by the trial judge. As expert witness testimony is a crucial factor in the majority of fire investigations, we can expect the qualifications, methodology and findings of our investigators to be questioned very closely. Under both the above court decisions, the expert's methodology will be subjected to a *Daubert* or similar analysis by the trial court judge. In brief, this analysis requires that the testimony be both relevant and reliable. To establish reliability, the testimony must meet a four part, non-exclusive test that considers the following factors: 1) whether the technique or theory used can be tested; 2) whether the theory or technique has been subjected to publication and peer review; 3) whether there is a known or potential rate of error for the theory or technique; 4) whether the theory or technique has reached a level of general acceptance in the discipline.

The *Carmichael* decision, while allowing some flexibility for the trial court judge, basically affirmed the previous standards established in *Daubert* and further reinforced the role of the trial court judge as "gatekeeper" in determining the admissibility of an expert witness' testimony. More importantly, the *Carmichael* decision explicitly refused to make a distinction between expert testimony that was "technical" in nature, versus that which was "scientific", requiring all expert testimony to be subjected to examination.

The implications for fire investigators are significant. First, the fire investigator must convince the trial judge that his or her qualifications and methods are reliable prior to the jury being allowed to hear their conclusions. Second, the investigator must be prepared to validate and verify every facet of the

investigation. They must be prepared to show why a particular method was used in the analysis of the fire scene and how the method has been shown to be reliable in the field of fire investigation. It will no longer be adequate to simply state that "this is the way it has always been done". All methodology must be shown to have an underlying foundation that is science-based, has been tested and peer reviewed and shown to be reliable and has been generally accepted. Furthermore, the investigator must be prepared to document and explain how that methodology led to the conclusions arrived at in that particular investigation.

The answer to the question of how well our average fire investigators will measure up to this standard is apparent. With limited training and experience and the lack of any qualifying standards, our ability to withstand even mild scrutiny under a *Daubert* or similar analysis will be difficult. This situation is further compounded as outlined below.

NFPA 921 AND 1033

The above-referenced chapters published by NFPA have set guidelines for conducting fire investigations that are quickly becoming *de facto* requirements for all fire investigators.

In short, 921 establishes a methodology that is based on the "scientific method" of conducting an investigation or problem solving inquiry. This method requires the investigator to follow a systematic, six-step process that conforms itself to the methodology used in solving scientific and engineering related questions, i.e., recognize the need, define the problem, collect data, analyze the data, develop a hypothesis, test the hypothesis.

Coupled to the *Daubert* and *Carmichael* court decisions, an inability to meet or at least address intelligently the systematic methodology "required" under NFPA 921 will leave our investigators susceptible to cross examination during *voir dire* that is likely to seriously impair their credibility at the least, and may, at the worst, result in their testimony being excluded in its entirety.

Whether we choose to adopt the guidelines in NFPA 921 and 1033 or not, we must, as a minimum, prepare our investigators to meet and adequately address defense attorney challenges that will be based on these guidelines. Currently, with the exception of some Region 5 Forest Service investigators, (who recently attended a 6 hour training session on NFPA 921), the majority of our personnel are not even vaguely familiar with the methodology and would be ill-prepared to counter cross examination on this subject.

That NFPA 921 (and the concurrent qualifications outlined in 1033) are rapidly making their way into the defense attorney ranks is evidenced by a number of anecdotal accounts from fire investigators across the nation. With the ability for rapid dissemination of information via the internet and other sources, it will not take long for this to be standard *voir dire* strategy in the majority of fire cases. As described above, our investigators are likely to be placed into a situation that will be embarrassing at the least and may be potentially fatal to a successful outcome of the case.

This situation has become even more critical with the Wildland Fire Investigation chapter that has been added to NFPA 921 in the most current revision.

CERTIFIED FIRE INVESTIGATORS

As if the Supreme Court cases and NFPA 921 and 1033 have not presented enough challenges for us to meet, the adoption of Certified Fire Investigator programs by various professional organizations and state governments have further complicated matters. These programs set standards for minimum qualifications for professional fire investigators that are actually fairly stringent when contrasted against the training and experience of the average wildland agency fire investigator.

For example, to become a CFI in California, one must meet the following minimums:

- 1) Has received 160 hours of state fire marshal certified fire investigation training
- 2) Has investigated at least 150 fires
- 3) Has qualified and testified in court as an expert witness in fire investigation at least twice
- 4) Has maintained currency by attending a minimum of 20 hours of fire investigation related training every two years.

Compare this to the average wildland agency investigator who has received 36 hours of training, has investigated somewhere between 1 to 50 fires since receiving the training, has never qualified and testified as an expert in a fire case and has received no refresher training.

With a lack of any agency standards for qualification as a fire investigator, essentially any employee can claim they are one. There are in fact employees performing fire investigations that have never received any formal training. Many of those that have received training, were trained with information that has now become seriously outdated.

While the average CFI has a background that will likely be exclusively or predominantly in the field of structural fire investigation, judges and juries will probably fail to recognize a distinction, when taking into consideration the very minimal experience and the total lack of any agency qualifications for our investigators. Based on current trends, these CFIs will perform the role of “spoiler” in a court case, by attacking the methodology and credibility of our investigators.

Additionally, with the projected retirement of numerous highly qualified fire investigators currently working for wildland agencies, it is a safe prediction that a certain percentage of the most highly qualified will seek employment as private investigators. How well will our fire investigators fare against them in the near future, considering their lack of experience and training?

RECOMMENDATION/PROPOSAL

With the trends described above, it is clear that a parallel standard for wildland fire investigators that meets or exceeds NFPA 921 and other CFI programs must be established. We strongly recommend that this project be undertaken as an interagency effort, under the oversight of NWCG. Along with the diversity of perspectives, an interagency approach will add considerable weight and credibility to the final product. This project clearly fits within NWCG's charter. The following will outline the broad tasks necessary for successful completion of this proposal.

1. Establish inter-agency qualification standards for a Wildland Fire Investigator

Certification Program with NWCG oversight.

- a. Obtain NWCG approval to proceed.
- b. Identify Working Team members and representative.
- c. Identify sources of technical information.
- d. Ensure that standards meet or exceed NFPA 921 and NFPA 1033.
- e. Obtain peer and legal review.
- f. Identify and develop required task books, proficiency exams and training modules.
- g. Final approval from NWCG

2. Obtain IAAI and other relevant professional organization support.

- a. Present through IAAI Wildland Fire Subcommittee

3. Implement through various participating agencies.

- a. Establish standard certification process procedures.
- b. Provide necessary training and certification materials.
- c. Identify and certify current employees that meet standards.
- d. Identify and provide training for those that do not meet standards.

4. Working Team continue to monitor and update program as needed.

- a. NWCG ensure that training and certification materials are reviewed and updated as necessary through the formation of a standing Working Team.

*******UPDATE*******

In September of 1999, USFS LEI representatives met with Harry Croft, Deputy Director of Fire and Aviation Management and presented the above proposal. Croft carried the proposal to NWCG and a full presentation to the NWCG Board was made by USFS LEI, Oregon Dept. of Forestry and BLM Law Enforcement in January, 2000. NWCG approved the proposal and a temporary charter was issued.

The official charter was approved by NWCG at their May 2000 meeting.

The Working Team met in June and prepared a draft standard. The standard was transmitted to NWCG member agencies in July for peer level, technical review. Approximately 160 written comments were received. These comments were reviewed and considered and either accepted or rejected by the Working Team during a meeting in October. The final draft, along with drafts of the three Position Taskbooks and PMS 310-1 standards were then prepared and transmitted to both the IOS and Training working teams.

The draft package was reviewed with the IOS and Training working teams at their joint meeting in Florida in January. Several recommendations were made and adopted. These included a streamlining of the required training, removal of the "number of fires" requirement and the recommendation that these

positions be national PMS positions rather than technical specialist positions. The subsequent final draft, reflecting the changes and recommendations, was again presented to the IOS working team at their meeting in Texas on May 1. They again recommended several minor changes, which have been adopted. The WFI working team chair and co-chair presented the final draft package to the NWCG board at their June meeting. The board accepted the standard for review and are scheduled to make their recommendations at their October meeting. The WFI working team met again in Duluth and begin working on the draft course outlines for the three proposed courses in the training package.

The objectives of the working team are to have a draft standard approved by NWCG and the final training and certification packages ready for agency implementation by 2002 or early 2003..