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Texas Forensic Science Commission
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BY EMAIL

Dear Commissioners:

As you know, the Innocence Project alleged in May 2006 – based on a comprehensive report by leading experts in the field of arson investigation – that the Ernest Willis and Cameron Todd Willingham cases resulted in mutually exclusive outcomes. Both men were convicted of capital murder in cases predicated on arson analysis. The convictions were supported by the Texas Fire Marshal's Office on facts that presented, for scientific purposes, the same analytical pattern.

Eventually, in the Willis case, following the 1992 publication of the scientific standards for interpretation of arson evidence established by the National Fire Protection Association (NFPA 921), the prosecution dismissed Mr. Willis's arson murder indictment and supported his successful "actual innocence" compensation claim. Mr. Willingham, on the other hand, was convicted of capital murder. This arose after the publication of NFPA 921 – a document that showed the arson analysis offered by the Texas Fire Marshal's Office was absent scientific merit. Nevertheless, Mr. Willingham's conviction was upheld for 11 more years, until his death in 2004 – notwithstanding efforts by counsel and a prominent arson expert to demonstrate to state officials the unreliability of the arson analysis supporting the conviction.

We fully understand that this allegation is among the first the Commission is formally considering, and we appreciate your careful and deliberative efforts to reach this point. We hope this letter will assist you in working out a framework for assessing our claim.

We believe the question before the Commission is whether colorable facts exist that, if proven, would constitute “professional negligence or misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by an accredited laboratory, facility, or entity.”¹ We are certain the facts alleged here surely raise a colorable claim and that further investigation and fact-finding by the Commission is required.

The Commission must determine whether the Arson Review Committee is right that the forensic arson analysis used to convict Willingham and Willis (and surely many others) was scientifically unsupportable, in accordance with the findings of NFPA 921. Indeed, it would be important to determine whether the Texas Fire Marshal’s Office agrees with NFPA 921 today, and if not, at what point it abandoned the forensic arson analysis used in the Willingham and Willis cases. It is our contention that NFPA 921 is scientifically correct, the forensic arson analysis used in the Willingham and Willis cases is scientifically invalid, and that the Fire Marshal’s Office:

- 1) Should have been aware of NFPA 921 when it was promulgated in 1992;
- 2) Should have substantially revised its arson analysis procedures thereafter to reflect scientific findings of NFPA 921;
- 3) Should have taken into account NFPA 921 once its effect was clear on the Willingham case and subsequent cases; and
- 4) Should have notified prosecutors and courts about the substantial change in forensic arson analysis brought about by NFPA 921 at whatever point after Mr. Willingham’s conviction the Fire Marshal’s Office adopted the tenets of NFPA 921 and concluded that the analysis offered by its agents in the Willingham case and other similar matters lacked scientific merit.

Most significantly, we believe this matter is indistinguishable from the recent course of conduct taken by the FBI when it agreed with findings in a report by the National Research Council of the National Academies of Science. The NRC asserted that testimony offered by FBI agents since 1973 concerning Composite Bullet Lead Analysis (CBLA) technique was based on false assumptions and lacked scientific merit.

Recognizing that failure to notify prosecutors or courts about the unreliable CBLA testimony of its agents would be professional negligence or misconduct,² the Bureau now is reviewing CBLA transcripts and notifying prosecutors and courts in conjunction with a formal agreement with the Innocence Project. Therein, the Innocence Project makes efforts, after notification, to assist convicted individuals in cases where CBLA was material evidence.

The NFPA 921 in Texas

The Fire Marshal’s Office was or should have been on notice of the dramatic change in forensic arson analysis brought about by NFPA 921. As far back as 1990, the State Fire Marshal’s Office

¹ Texas C.C.P. 38.01 (4)(a)(3) (2007) (emphasis added).

² The FBI has acknowledged that a failure to follow such protocols would constitute a Brady violation.

incorporated into its *own* regulatory code model regulations offered by the NFPA,³ the nation's preeminent fire safety organization.⁴ Indeed, in 1990, the Fire Marshal's Office recognized the NFPA's importance by adopting a regulation that declared, "the National Fire Protection Association [is] a nationally recognized standards-making organization."⁵ The Texas Fire Marshal's Office incorporated numerous NFPA provisions into its regulatory schema, and has continued to do so.⁶

Therefore, given the prominence and importance of the NFPA, the Texas Fire Marshal's Office surely should have known in early 1992 that the NFPA had published "NFPA 921." If the Fire Marshal's Office did not know about NFPA 921, or, in the alternative, if it failed to seriously consider its findings, that error or omission would constitute professional negligence on its own. We suggest the Commission make particularized inquiry and findings on that issue.

Similarly, we suggest that the Commission should inquire when, if ever, the Fire Marshal's Office adopted the findings of NFPA 921 and abandoned the forensic analysis used in the Willingham and Willis cases. If the Fire Marshal's Office neither adopted NFPA 921 nor discarded the analysis used in the Willingham and Willis matters, that course of conduct would, we contend, constitute professional negligence or misconduct and would require immediate remedial action to prevent serious errors in ongoing matters.

If it turns out that at some point in time after the Willingham conviction the Fire Marshal's Office adopted the precepts of NFPA 921 and concluded that the analytical methods used in the Willingham case were scientifically invalid, the Fire Marshal's Office was obligated to inform prosecutors and courts about the unreliable testimony of its agents. Failure to make any such efforts should be considered professional negligence or misconduct, at minimum because it represents Brady material.

The Foundation of NFPA 921

NFPA 921 did not develop out of the blue. Indeed, many of the principles it espouses date back decades to highly reputable sources, which only underscore the document's importance to Texas and the rest of the country. The NFPA bolstered 921 by relying on these helpful guideposts.

1969 – Kirk's Fire Investigation

Among the inspirations was "Fire Investigation,"⁷ a 1969 publication by University of California-Berkeley Professor Paul L. Kirk, in which the author alluded to the phenomenon now described as flashover. "Explosions, closely akin to fires, and often accompanying them, also must be understood. ... The difference between the two types of events is often so small as to

³ See, e.g., 28 TAC s. 34.5 (originally adopted Sept. 19, 1990 and concerning flammable liquids).

⁴ Established in 1896, the NFPA works "to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education." See the "About Us" page of the NFPA's Web site, <http://www.nfpa.org/categoryList.asp?categoryID=143&URL=About%20Us> (last visited Aug. 13, 2008).

⁵ See 28 TAC s. 34.4 (originally adopted Sept. 19, 1990).

⁶ See, e.g., 28 TAC s. 34.302 (originally adopted Feb. 27, 1996 and concerning definitions).

⁷ Paul L. Kirk, Ph.D., FIRE INVESTIGATION, John Wiley and Sons, New York, 1969.

allow confusion and *may be almost solely a matter of definition*.⁸ Later, in referencing the downward flames that can mark flashover, Kirk added, “When this type of situation prevails, the fire pattern may be greatly modified, and the special condition must be recognized so that *misinterpretation does not result*.”⁹ Likewise, Kirk challenged what he deemed common misconceptions concerning burn patterns and flammable liquids, as well as the holes in flooring they allegedly cause.¹⁰

1977 – LEAA

Less than a decade following Dr. Kirk’s publication, in 1977 a broad coalition from the Law Enforcement Assistance Administration of the U.S. Department of Justice’s National Institute of Law Enforcement and Criminal Justice (today’s National Institute of Justice) published a seminal survey of its own on arson analysis.¹¹ “Arson and Arson Investigation: Survey an Assessment” planted even greater seeds of doubt that began to germinate across the nation’s community of arson analysts and also influenced NFPA 921.

The LEAA document incorporated many warning salvos, calling the arson analysis community to reform its methodologies. Among the significant issues raised in the document, the LEAA noted that while the “effects on materials of heating or partial burning ... are the most frequently used method for determining the points of origin and causes of fire ... these indicators have received *little or no scientific testing*.”¹² Later, the authors underscored, “There appears to be no published material in the scientific literature to substantiate their validity.”¹³ In essence, the LEAA sternly warned arson investigators that “burn indicators” were unreliable in determining a fire’s origin. So, too, did the LEAA question the reliability of turning to “suspicious behavior of spectators,”¹⁴ a practice that played a role many years later in the Willingham investigation.

Harvard / National Bureau of Standards’ Center for Fire Research Study

Following that LEAA study, during the 1980s the National Bureau of Standards (today’s National Institute of Standards and Technology) co-authored with Harvard University researchers a further study on flashover. The researchers captured active flashover on film, including “a one-inch flame growing to engulf a room in less than seven minutes.”¹⁵ This only added to questions about traditional arson analytic methods and contributed to the NFPA’s document.¹⁶

⁸ *Id.* At 2-3 (emphasis added).

⁹ *Id.* At 72 (emphasis added).

¹⁰ “It is not uncommon for the investigator to assign the cause to the use of a flammable liquid. Such interpretation is *more often incorrect than otherwise*.” *Id.* At 74 (emphasis added). *See also id.* at 75.

¹¹ National Institute of Law Enforcement and Criminal Justice, Law Enforcement Assistance Administration, U.S. Dept. of Justice, “Arson and Arson Investigation: Survey and Assessment,” U.S. Gov’t. Printing Office, Wash. D.C., 1977.

¹² *Id.* at xvi-xvii (emphasis added).

¹³ *Id.* at 88 (emphasis added).

¹⁴ *Id.* at 59 (emphasis added).

¹⁵ David Ferrell, “New Arson Tools Could Reverse Arizona Murder Convictions,” L.A. TIMES, Nov. 13, 1990 at 1.

¹⁶ Associated Press, “State Arson Investigator Probed, Findings Questioned,” MIAMI HERALD, July 20, 1991, at 5B.

Significant Problems with Arson Investigations in Florida and Arizona

Then, in the early 1990s, in Jacksonville, Florida, Gerald Lewis was charged with the house fire that killed six of his relatives at the home of his estranged wife. During state effort to prove its theory of the fire – one that was discordant with Lewis’s assertions concerning the fire’s accidental origins – the state demonstrated that the fire could have started without intention. Arson charges were dropped and state chemist Charles Victor Higgs, who had analyzed evidence in approximately 10,000 arson investigations, was himself investigated.¹⁷

Likewise, in Arizona, Ray Girdler, Jr., was exonerated in connection with a house fire that killed his wife and child. When an expert in the case realized that the Harvard / National Bureau of Standards film represented a fire clearly analogous to the fire that landed Girdler in prison, Girdler petitioned the court. He was eventually released.¹⁸

All of these precursors laid the groundwork for NFPA 921 – a document that the State Fire Marshal’s Office should have known about by virtue of its apparent appreciation of the NFPA’s authority.¹⁹ Yet there is no evidence to suggest that the office acknowledged the weight of NFPA 921 or shared its significance with any other party – including those directly affected by the forensic analyses that NFPA 921 called into question.

Remediation – and What Texas Can Learn from the FBI

Of course, the allegations raised in this matter are significant. If you choose to investigate them, a finding that affirms them will have broad-reaching consequences. But this is the very kind of work for which your Commission was created. Indeed, according to the Commission’s governing statute, it may initiate “retrospective reexaminations of other forensic analyses conducted by the laboratory, facility, or entity that may involve the same kind of negligence or misconduct [that an allegation revealed]; and [conduct] follow-up evaluations of the laboratory, facility, or entity to review the implementation of any corrective action.”²⁰ Moreover, the Commission need not fear that any affirmation of professional negligence or misconduct in keeping with the statute would open the state to needless liability. As the Commission’s own statute states, “A report completed ... in a subsequent civil or criminal proceeding, is not prima facie evidence of the information or findings contained in the report.”²¹

The FBI and the Innocence Project

If you find credibility in what we have alleged, the recent agreement forged by the Innocence Project with the FBI (in partnership with the National Association of Criminal Defense Lawyers) may provide you with an instructive framework from which to consider potential remedial steps. When problems with CBLA were exposed, the FBI agreed to take concrete steps, in consultation with independent experts, to identify potential wrongful convictions resulting from bullet lead

¹⁷ *Id.*

¹⁸ David Ferrell, “New Arson Tools Could Reverse Arizona Murder Convictions,” L.A. TIMES, Nov. 13, 1990 at 1.

¹⁹ This seemingly is exemplified by the Office’s incorporation of NFPA standards into its regulations and, as previously noted, its declaration in one of those standards that “the National Fire Protection Association [is] a nationally recognized standards-making organization.”

²⁰ Texas C.C.P. 38.01 (4)(b)(2) (2007).

²¹ Texas C.C.P. 38.01 4(e) (2007).

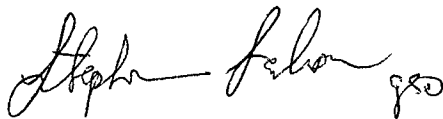
analysis and to prevent misleading testimony in future cases. An Innocence Project and NACDL task force is assisting the FBI in reviewing closed cases and serving as a resource for defense counsel and for defendants who may have been wrongfully convicted based on erroneous or misleading FBI testimony. The FBI also has agreed to provide notice to members of the criminal justice community, from prosecutors to judges, about affected cases with which they were involved. The Task Force will vet and respond to cases as the FBI releases them and will ensure that attorneys handling the cases have access to legal and forensic expertise to weigh the impact of false or misleading CBLA testimony. We think this model could serve as a crucial template for Texas if it considers remediation in arson cases.

We thank you for your consideration.

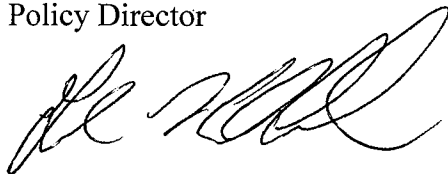
Sincerely,



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