



F27 A Critical Review of Admissibility of Canine Alerts in Arson Cases

Terry-Dawn Hewitt, LL.M.*, McKenna Hewitt, Denver, CO 80224-3703

Learning Overview: After attending this presentation, attendees will be aware of the vast array of issues concerning Ignitable Liquid (IGL) detection canine alerts that should be considered by attorneys and fire investigation experts where one party proposes to proffer such alerts as evidence in criminal or civil arson cases.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by summarizing the surprising results from a comprehensive review of more than 100 American and Canadian court decisions mentioning IGL canine alerts, together with relevant scientific publications.

The National Fire Protection Association (NFPA) 921 Guide to Fire and Explosion Investigations is a consensus-based industry standard widely recognized as representing the standard of care for fire investigators.¹ In 1996, NFPA 921 added a section on Canine Teams.² The section was short, but made three important points: (1) the proper use of canines is to assist with the location and selection of samples for submission to a laboratory to be tested for the presence of IGLs; (2) the canine's nose may be more sensitive than laboratory testing, but a canine may not be able to distinguish between an IGL and background materials; and, (3) "Any canine alert not confirmed by laboratory analysis should not be considered validated." On its face, these points would seem relevant to a court's determination of whether evidence about IGL canine alerts is properly admissible in evidence as substantive evidence of the presence of an accelerant. Accelerants by definition include IGLs intentionally introduced to start a fire or speed its growth, so evidence of their presence is usually highly relevant to the proof that a fire is incendiary. Although changes have been made to the canine section over time, NFPA 921 has contained these points in every edition since 1996. Notwithstanding these cautions, courts in the United States have regularly admitted evidence of IGL canine alerts, even when the presence of IGLs is not confirmed by laboratory analysis.

Examining the court decisions (mostly in criminal cases) that mention IGL canine alerts as part of the evidence given at trial, this study made some remarkable findings. Here are a few examples. Often criminal defense attorneys failed to object to the admissibility of canine alerts or made no motion to require a reliability hearing under Daubert or the state rule determining admissibility of expert evidence. Where objections were raised to such evidence, many cases held that the alerts (even if unconfirmed by laboratory analysis) were admissible if corroborated by other evidence. Frequently, the corroborating evidence was the opinion of a fire investigator who found "pour patterns" and interpreted them to indicate the presence of accelerants in the absence of laboratory confirmation. While NFPA 921 has developed over time in terms of fire pattern interpretation, it is quite clear in the 2021 edition that such irregularly shaped fire patterns may have a number of explanations. Therefore, the presence of an IGL should be confirmed by laboratory testing and not be based solely on the interpretation of a fire pattern.

Perhaps what is most surprising is how many cases make no reference to NFPA 921 or other scientific literature that question the reliability of unconfirmed IGL canine alerts as evidence of the presence of an accelerant. Notwithstanding this body of cases where the majority admit evidence of IGL canine alerts, the consensus of the scientific community continues to grow stronger. The latest edition of NFPA 921 has published a substantially revised section on IGL canines. Most notably, NFPA 921 now says, "Any canine alert not confirmed by laboratory analysis should not be considered validated and, accordingly, should not be offered as direct or circumstantial evidence of the presence of an ignitable liquid in a criminal or civil case."³ Hopefully this new consensus of the scientific community will have an impact on the use of IGL canine alerts in litigation.

Reference(s):

1. Tech. Committee on Fire Investigations. *NFPA 921 Guide for Fire and Explosion Investigations*. Quincy, MA: Natl Fire Protection Assn., 1992 to 2021 (*hereinafter* "NFPA 921").
2. Tech. Committee on Fire Investigations. *Tentative Interim Amendment to NFPA 921 Guide for Fire and Explosion Investigations*. Quincy, MA: Natl Fire Protection Assn, 1996.
3. *NFPA 921*, 2021 ed., s. 17.7.7.

Canines, Fire Investigation, NFPA 921