BOOK REVIEW

Richard E. Tontarski, Jr., 1 M.S.

A Review of Kirk’s Fire Investigation


The review of Kirk’s Fire Investigation is very simple. It is a “must have” for both fire investigators and laboratory examiners working in the field. The author’s objective was to expand on Paul Kirk’s original work and simplify some of the technical concepts presented. DeHaan retained much of the original organization of Kirk’s first edition. Important new chapters include “Electrical Causes of Fire,” “Chemical Fires and Hazardous Materials,” “Laboratory Services,” and “Fire-Related Deaths.” Another welcome addition is a glossary which covers fire investigation terms, as well as chemistry and electrical terminology.

Almost every chapter has been significantly updated (fortunately fire chemistry does not change). The references and suggested readings are very complete. They should help investigators research any topic not sufficiently covered in the text.

A major improvement to the original is the numerous photographs and line drawings used to illustrate discussions in the text. They help explain difficult concepts and are useful for novices as well as experienced investigators. DeHaan participated in a number of full-scale structural burn tests and his observations are included in this text. These observations are important to the fire investigation field. Investigators’ knowledge of fire behavior has traditionally been handed down from investigator to trainee. The novice investigator takes his mentor’s guidance about determining origin and cause as gospel. There is often little or no fact to support these “rules of thumb” investigators have come to rely on. These theoretical myths of fire investigation become fact. DeHaan identifies and documents numerous fire indicators. He emphasizes that each fire must be treated individually. Fire indicators are not absolute. They are guides a trained and thoughtful investigator uses in reaching a conclusion about the origin and cause of a fire.

Paul Kirk’s original 1969 work was intended “to upgrade markedly the average (investigative) performance as well as to increase the percentage of expert investigators.” DeHaan has done an excellent job maintaining that spirit and has contributed to that goal. I am looking forward to the third edition which should be in press shortly.

1Chief, Forensic Science Laboratory, United States Treasury Department, Bureau of Alcohol, Tobacco and Firearms, 1401 Research Blvd., Rockville, MD 20850.