FIS Chapter 6 Fire Scene Documentation

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**Answer 01**

 A scene of fire contains evidence and important clues to origin and cause of fire. A through documentation of fire scene focused on guidelines of systematic set including measurements, forensic photography, drawing, sketches and analysis. Documentation is done to record the visual observations, to keep the integrity of scene intact and validate the material evidence. In Fire Investigation Handbook, a publication of NBS in 1980 presented a four-step phase for the systematic documentation. The first phase includes examining and writing about the exterior structure of scene. In second phase, the interior damage is documented. It demonstrates the degree and growth of fire throughout the affected area. The structural features of a building must be examined as they can play a vital role in progress of fire and smoke. During overhaul, sometimes the ceiling is damaged so the nearby roofs and structure must be examined. The documentation of CO detectors, sprinkler and alarm system can also reveal significant information about the origin of fire. The readings and time stamp of the devices can also contribute to determine the time when they were damaged by extreme heat or power interruption. Thirdly, the investigative documentation focuses on debris cleaning procedures, burn patterns, fuel loads, position of evidence before its removal from scene and probable ignition source. The indication of any related crime like theft, homicide, burglary etc. should also be included in report. The statement and information from witness and survivors is also vital for the investigation. At the fire scene, an aerial, panoramic and perspective view provides an overview if what could have happened. The fourth phase is to capture the panoramic view of the scene by stitching the pictures. This helps in considering every perspective so that no vital information is left out in the final investigation.

**Answer 02**

A witness should be interviewed at a crime scene and all information received like identification, expected testimony, contact information, home and office addresses etc. should be documented. National Fire Protection Association (NFPA) 921 considers the information provided by a witness as a primary source when cause and origin of fire is determined. It is important to gather information from witnesses so that facts are discovered, and assumptions can be discarded. This will help conduct a transparent investigation. It is also important to collect information when the memory of witness if fresh so that information is accurate, and no one can influence the witness to speak other than what is true. NFPA is of the opinion that witness’ statement about fire growth can be subjective. It is seen usually that the fire is discovered noticeably later than the start of fire. Due to which, the information witness gives about fire growth is at time he/she discovers it, not the time it started. Cases which include witnesses who were present when fire started can provide much information about initial situation and weather as well. Many times, survivors provide critical information about fire scene including origin of fire, location of fuel package, how they survived, time of alarm sounding, structural failure and collapse, fire and smoke at start and its development, activities and behavior of people including victims and suspect throughout the incident, and arrival of rescue teams. Moreover, it is also important to note down details like position of witness when they saw it happen. Walking through the scene with witness can be helpful. This will prove the essence of witness statement and clear the assumptions.

**Answer** **03**

The items burnt in a fire scene can estimate the extent of the fire. The material with lower melting point suggests that the fire was not strong and if the damaged objects are melted at high temperature, it suggests that fire was intense. Observing the burn patterns can tell a lot about the origin and cause of fire. It can indicate the fuel package or accelerant. Usually the patterns are formed on walls and structures are used as evidence to determine the cause of fire. The observed damage to various items like the alarm system, and detectors can determine facts about pre-fire scenes.

Some of the natural processes including condensation, melting, drying, evaporation and cooling etc. are observed to determine the time of fire ignition and duration of fire. For example, if the evaporation time of accelerants is estimated, it can provide information about dynamics of fire and fire duration.

(“Kirk’s Fire Investigation, 8th Edition,” n.d.)

**References**

Kirk’s Fire Investigation, 8th Edition. (n.d.). Retrieved November 16, 2019, from http://www.mypearsonstore.com/bookstore/kirks-fire-investigation-9780134237923