Arson: Crime Scene Processing Basics

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Some of the most challenging scenes to process involve suspected arson. Such scenes call for the special expertise of an arson investigator. But just because an arson investigator will process the scene doesn't mean that the crime scene officer doesn't have a role. The CSO is still responsible for collecting general evidence at the scene and also provides valuable assistance to the arson investigator. And by working with the arson investigator, you gain valuable knowledge that will aid you in future cases. Let's take a look at the basics you need when you're called to an arson scene.

First, if you arrive at a scene and suspect arson, immediately call in an arson investigator. The fire department or state fire marshal's office has specialists who can investigate the cause of the fire. If it's arson, they can process the scene. Don't hesitate to call in these experts. I had a scene at a rural house that I thought was arson. I could see four points in the basement where the fire started. What I didn't know was that the house used propane; when propane ignites, it stays low to the ground. In this case, an accidental spark had ignited the propane, causing the fire. Without the arson investigator's help, I wouldn't have had an accurate picture of what had happened. If an arson investigator isn't available, do your best with the knowledge you have to document and process the scene thoroughly.

Before you begin processing the scene, secure the perimeter and limit access as much as possible. Don't think of the crime scene as just the building or the car where the fire occurred. Consider a broader area. An empty gas can or other evidence may have been pitched in the surrounding bushes or fields. You'll never know what's out there unless you look.

Remember, safety first! If you find an explosive device, back out and call the bomb squad. Be alert to dangerous areas of the building. If there are burn victims present, get them help immediately. The victims may have evidence on them, so remember to collect their clothing and other items once they receive help.

Thoroughly documenting the scene is essential. Keep an accurate log of who enters and leaves the scene. Photograph the entire scene from different angles before you process it and create diagrams. When you begin collecting evidence, photograph each item where you find it. Note the location, the date, and the time. Remember that maintaining a proper chain of evidence is crucial. When you go to court, you can bet the defense will ask you where the evidence came from and who was responsible for it. I can't stress enough how important it is that you provide proper documentation.

Another essential step is taking proper precautions to ensure the scene isn't contaminated and you're protected. While you should always proceed with caution at any crime scene, arson scenes may be especially hazardous because of the possible presence of toxic

fumes, smoke, and dangerous debris. Many wear gloves and appropriate foot coverings. In some cases, you may need a mask and/or breathing apparatus. If there is a body at the scene, wear a protective Tyvek suit to protect against health hazards from blood or other bodily fluids. Note that in arson cases, you should wait to call the coroner until the arson investigator has finished his work around the body. You want to be sure the area around the body is well documented and that you have retrieved all evidence on and near the body before it's moved.

When you're ready to begin processing, proceed like it's any other scene: find and collect any evidence that could possibly be relevant. Follow the basics and look for fingerprints, latent prints, tire tracks, foot prints, impression evidence, hair, fibers, blood, and other body fluids. Also look for items such as tape, fabric/material, cigarettes, drugs, glass, wood, soil documents, mail (check to see when last collected and compare to when the person was killed), computers (check facebook, texts, documents, and files), answering machines, firearms and other weapons, paints, any of the victims' personal items (clothing, wallets, purses, etc.).

Some items can't be processed because of damage from the fire or from efforts to contain it. In some cases, though, fingerprints will be visible because of the soot. Be observant. Oil residue and water don't mix: you may find more prints than you'd expect if you search carefully. In arson cases you're also looking for evidence of an accelerant. Pay special attention to any materials or items that appear suspicious.

Evidence collected from the scene must be placed in proper containers. Items that may contain an accelerant must be placed in arson containers or new metal paint cans with lids that trap vapors. Once the items are sealed in the containers, label them. Don't use plastic for accelerants—the vapors will leach out of the plastic and the lab won't be able to determine the type of accelerant from the material.

Put wet items (clothing or other items with blood, semen, etc.) in butcher paper, then place them in an open plastic bag until you return to your office. Let the items air dry before labeling and sending them to the lab. If you don't allow them to dry, they'll become moldy and you won't be able to use them. You don't want to lose evidence you worked hard to get.

Working an arson scene can seem daunting. Besides all of the usual challenges, you have to deal with the damage caused by the fire itself. In some cases, you may have to sift through huge piles of debris just to get to the point where the fire started. Collecting and processing evidence in these situations requires patience and persistence. But the effort you put in at the scene will be worth it when you can help make the case stick in court.

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