

# June 2010 In-service Training

Detectives  
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Connecticut State Police  
Office of State Fire Marshal



## REMINDER

To request assistance of the  
Connecticut State Police  
Office of State Fire Marshal  
Bureau of Investigations & Enforcement  
Fires, Explosions, Canine Assists, Fireworks Accidents,  
Carnival Ride Accidents, Crane Accidents and ANY  
technical assist or response, please call

CSP Message Center 24/7

**800-842-0200**

**(860) 685-8190**

In lieu of the OSFM Office (860) 685-8460.



# LEGAL ENTRY of FIRE SCENES



## RIGHT OF ENTRY

The fact that an investigator has  
*authority* to conduct an investigation  
does not necessarily mean that the  
investigator has the *legal right* to enter  
the property that was involved in the fire.



## RIGHT OF ENTRY

- Investigation Required CGS 29-302
  - Property Damage
  - Injury or Death
  - Threat of Abuse
  - Emphasis on Whether Incendiary or Accidental



## METHOD OF ENTRY

While CGS 29-302 refers to the legal authority to be present on a fire scene, the authority to physically enter the fire scene must be obtained lawfully



## LEGAL ENTRY

- |                  |                                 |
|------------------|---------------------------------|
| ■ RIGHT OF ENTRY | ■ METHOD OF ENTRY               |
| ■ CGS 29-302     | ■ CONSENT                       |
|                  | ■ EXIGENT CIRCUMSTANCES         |
|                  | ■ ADMINISTRATIVE SEARCH WARRANT |
|                  | ■ CRIMINAL SEARCH WARRANT       |



## CONSENT

Voluntary permission granted to the investigator by the person(s) in lawful control of the property.

Should be documented in writing on a Consent to Search and Examine Evidence Form



## EXIGENT CIRCUMSTANCES

It is generally recognized that the fire department has the legal authority to:

Enter a property to control and extinguish a fire

Determine the Origin and Cause of the fire



## EXIGENT CIRCUMSTANCES

### *Michigan v. Tyler*

436 U.S. 499  
1978



### *Michigan v. Tyler*

- Fire just before midnight
- Fire Department responds
- 2 am Fire Chief arrives to determine cause – embers being doused
- Chief informed that 2 plastic containers with flammable liquids inside
- Thinks possibly arson – goes inside



### *Michigan v. Tyler*

- 3:30 am calls detective
- Several pictures taken, seizes containers – stop because of smoke, steam and darkness
- 4:00 am fire extinguished – everyone leaves
- 8:00 am chief and assistant return
- 9:00 am assistant and detective remove items from building that is not completely destroyed
- 20 days later – entry with more items seized



## *Michigan v. Tyler*

### Expectation of Privacy

Generally a person DOES retain an expectation of privacy in a burned building



## *Michigan v. Tyler*

- Initial entry by FD?
- 2 am entry by Fire Chief?
- 3:30 am Entry by Fire Chief and Detective?
- 8 am Re-entry by Fire Chief and Assistant?
- 20 Days Later?
- Justified-Exigency
- Cause and Origin-Exigency
- Exigency
- Continuation of Original Search
- NO!



## FIRE SCENE SEARCHES

### No Warrant Required:

Fire is still burning  
(Smoke and Embers)

Reasonable time after fire is extinguished



## WHAT IS REASONABLE TIME?

- Size of the Fire
- Size of the Building
- Danger of Rekindle
- Type of Building
- Danger of Hidden Extension
- Smoke, Steam, and Embers



## WHAT IS NOT REASONABLE TIME?

- Leaving the Engines and Fire Equipment to extend the time
- Leaving a Firefighter or Police Officer



## LEGAL ENTRY

### *Michigan v. Clifford*

464 U.S. 287

1984



### *Michigan v. Clifford*

- Fire at house early morning hours
- Firefighters arrive 5:42 am
- Fire extinguished 7:04 am
- Investigator arrives 1:00 pm
- House being boarded up
- While waiting to go in finds fuel can in driveway (originally found by firefighters)



### *Michigan v. Clifford*

- 1:30 pm investigator goes in
- Finds and seizes items in basement
- Concludes fire intentionally set
- Goes upstairs finds more evidence



## *Michigan v. Clifford*

Were the items found in the basement seized  
legally?

NO.

Items found upstairs?

NO.

Why?

No Exigency.

Warrant **REQUIRED**.



## FIRE SCENE SEARCHES

### ADMINISTRATIVE WARRANTS

C.G.S. 29-311

- Need to establish Origin and/or Cause
- No Probable Cause to believe a crime was committed
- To ensure a reasonable search



### ADMINISTRATIVE WARRANTS

- Number of Prior Entries
- Scope of the Search
- Time of Day of Entry
- Time Since Fire
- Continued Use of Building
- Efforts to Secure



### ADMINISTRATIVE WARRANTS

The scope of the Administrative Warrant is  
**LIMITED** to the investigation of the  
**ORIGIN** and **CAUSE** of the fire.

The Administrative Warrant expires once  
Origin and Cause has been determined



## CRIMINAL SEARCH WARRANTS

If, during the search permitted by an Administrative Warrant, evidence of a crime is discovered, a Criminal Search Warrant should be obtained.



## LEGAL ENTRY

### QUESTIONS?

Talk to your Prosecutors.  
Early and Often.



## EVIDENCE COLLECTION & PRESERVATION



## INTRODUCTION

During any fire investigation, the investigator is likely to be responsible for the identification, collection, examination and testing of physical evidence

The investigator must be familiar with the recommended and accepted methods of processing evidence



## PHYSICAL EVIDENCE DEFINED

- Any physical or tangible item that tends to prove or disprove a particular fact
- Physical Evidence can be found in any form



## DECISION TO COLLECT PHYSICAL EVIDENCE

- The decision to collect evidence at the fire scene rests with the investigator
- This decision may be based upon the scope of the investigation, legal rights, or prohibitions



## PRESERVATION OF THE FIRE SCENE AND THE PHYSICAL EVIDENCE

- The fire scene itself should be considered as evidence and a potential crime scene



## PRESERVATION OF PHYSICAL EVIDENCE

- One person as evidence technician
- Secure the entire scene
- Photograph the entire scene
- Protect all evidence
- Limit unnecessary personnel
- Avoid cross contamination
- Avoid unnecessary movement except to preserve





## COLLECTION OF EVIDENCE

### ■ Traditional Forensic Physical Evidence

- Finger prints
- Palm prints
- Bodily Fluids
- Hairs & Fibers
- Footwear
- Impressions
- Tool marks
- DNA



## Proper Collection of Evidence

- Wear Latex Gloves for all samples
- Change gloves after each sample
- Clean Tools
- Before and After collection
- Use some type of dish soap (i.e. Dawn) **\*\*NO Alcohol\*\***



## COLLECTION OF EVIDENCE FOR ACCELERANT TESTING

- **ACCELERANT** - any agent, often an ignitable liquid, used to initiate or speed the spread of fire.
- Can be gas, liquid or solid - however - it is usually found as a liquid



## Liquid Accelerant Characteristics

- Readily absorbed
- Generally float on water
- Remarkable survivability when trapped in porous materials



## Collection of Liquid Samples

- New syringe, eye dropper or siphoning device
- Sterile cotton balls, gauze pads, or feminine napkins
- Sealed in an air tight, unused metal container



## Liquids Absorbed by Solids

- Wood - Plaster/Sheetrock - Mortar - Concrete - Soil - Cloth - Are all materials that absorb liquid accelerants
- Tools must be cleaned after each use
- Collect at the outer edges
- Utilize an Accelerant Detection Canine



## EVIDENCE CONTAINERS

- Should preserve the integrity of the evidence and prevent contamination
- Containers may be common items such as:
  - Envelopes
  - Plastic bags
  - Metal cans
  - Paper bags
  - Glass containers
- Containers must be clean and unused and stored properly



## Metal Cans Clean and Unused

- Recommended for collection of liquid accelerants
- Advantages: Easily available - durable - prevent evaporation - reasonably priced
- Disadvantages - Can't view evidence - Large storage requirements - rusting



## Metal Cans Proper Packaging

- No more than two thirds full
  - Don't make a gallon can "Quart" size
  - Allow the circulation of air
  - Evidence labels affixed
  - Can properly sealed
- \*\*Use more cans, Don't over stuff them!\*\***



## Glass Jars

- Used for solid and liquid evidence
- Advantages: Availability - low price - easy to view evidence - do not rust
- Disadvantages: Tendency to break - limited size



## Glass Jars Proper Packaging

- No more than two thirds full
- Allow for air circulation
- Evidence labels affixed
- Properly sealed

**\*\*NOTE\*\*** - When sample is tested at the lab, it will be transferred to a metal can.



## Other Containers

- Paper Bags: Blood soaked clothes after drying - Non volatile items
- Common Plastic Bags: Non volatile - small items
- Envelopes: Drugs - Licenses - Small items



## IDENTIFICATION OF PHYSICAL EVIDENCE

- Properly mark the container with your identification
  - Use some type of permanent marker
  - Scratch into cans with key or screwdriver



## Label the Container Not on the Cover

- Name of the investigator
- Date & Time of collection
- Identification name or number
- Case #
- Item # designation
- Description of evidence
- Location where item was found



## Seal the Container

- Container cover sealed properly
- Evidence label or tamper tape for lab
- Make sure the labels won't interfere with the lab examination



## CHAIN OF CUSTODY

- Value of the evidence depends on the investigator's efforts to maintain the **security** and **integrity** of the evidence from the time of its initial discovery and collection - to its examination, testing and court presentation



## Chain of Custody

- Store the evidence in a secure evidence area
- This location should be limited to as few persons as possible
  - Best if available to police evidence technician only
- Use the proper forms to document the chain of custody



## Transportation

- Recommend hand delivery
  - Minimizes damage
  - Lessens chance of misplacement
  - Prevents evidence from being stolen
  - Maintains best chain of custody



## Laboratory Testing

- Recommend submission to C.S.P. Forensic Lab
- Complete the Examination and Request Form
- Make sure that a sufficient amount of evidence is collected



## Laboratory Tests Available

- Gas Chromatography (GC)
- Mass Spectrometry (MS)
- Other specific tests are available



## Evidence Disposition

- If a criminal case - an order from the court is required
- If an accidental case - the evidence belongs to the property owner



## PHYSICAL EVIDENCE

Introduction to  
Deoxyribonucleic acid

DNA



## What is DNA?

DNA, or deoxyribonucleic acid, is the hereditary material in humans and almost all other organisms. Nearly every cell in a person's body has the same DNA.



## What is Touch DNA?

“Touch DNA” refers to the DNA that is left behind from skin cells when a person touches or comes into contact with an item.



## Touch DNA

Humans shed tens of thousands of skin cells each day, and these cells are transferred to every surface our skin contacts. When a crime is committed, if the perpetrator deposits a sufficient number of skin cells on an item at the scene, and that item is collected as possible evidence, touch DNA analysis may be able to link the perpetrator to the crime scene.



## Touch DNA

However, since Touch DNA is usually deposited in smaller amounts than the DNA found in bloodstains or other body fluids, it is more difficult to obtain DNA profiles from touch DNA samples. The key to obtaining successful Touch DNA results depends on recognizing items which may be suitable for Touch DNA analysis and using the sampling technique that will recover the highest number of skin cells.



## Touch DNA

Many labs test for Touch DNA using the swabbing method. In the "swabbing method", the surface of the item is rubbed with a cotton swab to collect possible cells. This method is preferred for hard items such as glass or plastic.



## Touch DNA

Touch DNA is used on surfaces without a visible stain, such as blood, but that investigators suspect might contain genetic material.



## Touch DNA

Touch DNA can be difficult to obtain and is highly subject to contamination due to its sensitivity



## Touch DNA

Touch DNA samples are processed/amplified exactly the same way as blood, semen, saliva etc, and are therefore admissible in court.



## Collection of Touch DNA

Shows linkage or association but...

- DNA recovered from an object may not be from the last person to touch it. Factors include:
  - Length of contact
  - Good cell shedder or not
  - Vigorous contact



## Collection of Touch DNA

Shows linkage or association but...

- DNA profiles recovered from touch evidence are often mixtures of several persons
  - Elimination known(s)
  - Lawful owner
  - Crime scene personnel (Police/Fire Officials)



## Collection of Touch DNA Evidence

- WHEN:
- At the crime scene by police (e.g. door knobs, containers)
  - Forensic Laboratory by Examiners (from objects if additional testing is needed)
- WHERE:
- Areas of contact (e.g. handles, spouts)
  - Any touched object... (but be cautious regarding objects accessible to the general public)



## Touch DNA

### Fire Scenes

- The collection of Touch DNA in fire scenes is not very probative due to the degradation caused by:
  - Heat
  - Water



## Touch DNA

### Fire Scene Evidence

If physical evidence is found at a fire scene that might potentially contain Touch DNA

- IDENTIFY
- PRESERVE
- NOTIFY
- COLLECT (Trained Police Personnel)



## Touch DNA Case Study

February 3, 2008

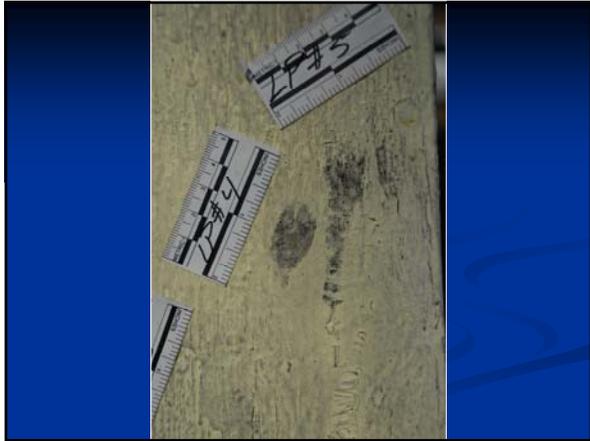
Hampton,  
Connecticut



0800055229 L  
45 Old Kings Hwy  
Hampton, CT  
Sunday 02/03/2008 @  
Aerial













Questions?  
Thank you!