Investigation of Power Line Caused Wildfires will require the dedication and persistence of highly trained investigators. Any fire that focuses on the electric utilities will bring out the most highly trained experts, private fire investigators, and legal counsel on their behalf. Any missed step or gap in your investigation can and will be emphasized by those required to vigorously defend the utility. Be prepared!

Investigations of Electric Power Line, Electrical Equipment, or Electric Facility Caused Wildfires are EXTREMELY complex and can result in long hours and years of work and litigation.

The Fire Investigator assigned to this task must be prepared and have a firm understanding of the fire investigative and litigation processes that will be employed during the life of the case.
Unit 2: Investigator Qualifications

What foundation does the Power Line Fire Investigator need in order to properly conduct a full and complete investigation?

Make the following key point:

- The Basic Foundation should include the completion of a Level I course of instruction, along with the successful development of several fire investigations under the direction of an experienced investigator.
- What do you remember from this Course of Instruction?
- How did this training assist you with your previous fire or fire investigation responses?
Unit 2: Investigator Qualifications

Slide 5

Make the following key point:
- Continuing on with the education needs of the Fire Investigator, the Primary Educational basics should be completed prior to engaging in complex investigations that normally ensue from the Investigation of Power Line Caused Wildfires.
- What do you remember from this course of instruction?
- How did this training assist you with your previous fire or fire investigation responses?

Slide 6

Make the following key points:
- Included within the Primary Education is an understanding of the processes under NFPA 921 and the Systematic and the Scientific Methods that are employed.
- This is where the Technical and Forensic Experts can make your job much easier. Bring them on early in your investigation, along with the appropriate legal counsel (District Attorney, Deputy Attorney General, or US Attorney for potential criminal cases and department counsel, Deputy Attorney General or US Attorney for potential civil litigation cases).

Unit 2: Investigator Qualifications
Make the following key points:

- Continuing the primary education is an understanding of the standards under NFPA 1033.
- The actions of the Technical and Forensic Experts that you employ will also be held to these standards. The admissibility of evidence and the testimony provided by expert witnesses is highly dependent on following these guidelines.
- Remember that Rule 702 states in pertinent part, “…if scientific, technical or other specialized knowledge will assist the trier of fact to understand a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training or education may testify thereto and form an opinion.”

Make the following key point:

- Whatever Experts you determine are needed to support your investigation they will be able to articulate that they possess the necessary traits that a judge AND jury can relate to.
Unit 2: Investigator Qualifications

Slide 9

Experts Activities

Everything that your Experts do must be:

- Relevant
- Reliable
- Testable
- Subject to Peer Review
- Generally Accepted within the discipline
- Subject to known or potential rate of error

Make the following key point:

- The Fire Investigator should know his experts and what they can provide. The Investigator may take the lead when working with the experts and make sure that they stay on track and accomplish the needed work in a timely manner.

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Experts

GIS:

- Accurate Maps and Geographic Relief

Geomatics Engineers:

- Natural features and design comparisons

Make the following key point:

- These experts can graphically show the conditions surrounding the incident scene prior to, during and after the fire.
Unit 2: Investigator Qualifications

Make the following key points:

- Photographic and Video experts can provide you with extremely important documentation and high resolution photos that can be invaluable in a court setting. They can also provide scene documentation of all of your evidence recovery activities and actions taken during execution of search warrants and actions on the part if officers and the electric utility company staff and employees.

- Electrical Engineers can provide information regarding the proper installation of the equipment and designs. Was the equipment installed correctly, did it operate correctly or was it compromised, was it maintained correctly. Where you might be “assuming”, they can provide the definitive technical answer.
Unit 2: Investigator Qualifications

Experts (Con’t)

Metallurgist:
  - Metal Analysis and Components
Mechanical Engineers:
  - Construction Design and Components

Make the following key point:
- These experts can demonstrate the physical conditions of the structures involved and scientifically show the stresses exerted on the structures, wires, and equipment, including proper construction and installation, their breaking points, breaking or melting characteristics, temperatures involved, ability of materials to hold high temperatures through the ambient air and have sufficient residual heat to ignite vegetative material, and other case sensitive issues.
Unit 2: Investigator Qualifications

Make the following key points:

- These experts can provide invaluable information regarding the stresses that may have been placed on the vegetation and equipment.
- These would include the amount and type of electrical discharge through the branches or tree, which branches were used as the mechanism for the discharge, age and growth patterns that occurred prior to the incident.
- They might show that the vegetation had been contacting the electric lines or equipment for an extended period of time prior to the fire.
- They can show that insects or other pathogens had weakened the electric structure for several years and that the conditions were apparent for several years prior to the fire.
- You may have these experts already in your employ. Federal, state, and local agency foresters, arborists, and botanists may be available from other divisions or departments.
Unit 2: Investigator Qualifications

Make the following key points:
- DNA Experts and the Forensic Labs can tie the offending vegetation or branch back to its parent tree or match the molten metal fragments in the ignition area to the equipment or line where it originated.

Make the following key points:
- The meteorologist can provide invaluable information regarding the actual conditions at the time of the fire, including generalized wind patterns and specific micro weather activity in and around the ignition area. Historical weather patterns are extremely important as to those “unpredictable” hurricane force winds that caused the fire have really occurred regularly 5 to 6 times a year over the last 20 years and should have been anticipated.
- Using additional Fire Investigators to conduct separate activities or to use your information and evidence can help support your efforts and provide a second set of eyes to see those gaps that you might have missed. Don’t forget, the other side will be employing NUMEROUS eyes to find those potential gaps. Your case will be stronger if you have already found and filled those gaps.
Unit 2: Investigator Qualifications

The Attorney’s

How they can help the Fire Investigation:
- Provide Technical Advise
- Help direct the activities to establish firm basis for the case
- Establish rapport with the Fire Investigators
- Establish “Attorney-Client” Relationship and “Work-Product” Protections for activities

Make the following key points:
- The attorneys will question your activities, find what you thought was on a non-issue and exploit it to the fullest. Better they be on your side than on the other. No matter when they enter into your case, they will always be there. Bring them on early and have them help with your case, but remember, it’s your case and they are there to support your efforts. You may have to actually assist them with the education process and use previous cases and decisions that you know of.
Unit 2: Investigator Qualifications

Case Management

As with any activity – ICS Rules:

- Establish your organizational structure
- Assign a Specific Individual that will serve as the “IC - Case Manager”
- Provide the Case Manager with the authority and responsibility to develop and manage the activities.
- Ensure the Case Manager can and will carry the case through the entire process and will provide continuity until the jury renders a verdict.

Make the following key points:

- This simple fact is extremely important. Without good and consistent case management, the case can be lost. Fire Agency Executive staff should be supportive and understand the actions that will be taking place over the next several years as the case goes through the “due process”. Having that “Case Manager” assigned early and being allowed to take the case through the potential 3-7 years of litigation will produce a positive outcome. History has shown that the 7-10 million dollar suppression cost and damage recovery will be well worth the time and effort.
Unit 2: Investigator Qualifications

The correct answer is: D.

All of the above – Along with fire investigation experience.

Knowledge Check

During an Investigation of Power Line Caused Wildfires, various Experts should be brought into the case:

A. When the case has been slated to go to trial
B. When the attorney says they are needed
C. When the Fire Investigator requires the expertise to assist with or to support the investigation
D. When the opposing side begins to challenge your fire causation methodology and theories

The correct answer is: C.

When the fire investigator requires the assistance.
Incorporating the attorneys into the case should be done:

A. Early on so that they can assist with the case and incorporate “attorney-client” and “work-product” protections
B. Once it is determined that the case might be litigated
C. When the attorneys ask to join in on the investigation
D. When the suspect electric utility has assigned an attorney for their involvement

The correct answer is: A.

Early on will only help mentor the case through the process.
Unit 2: Investigator Qualifications

Knowledge Check

Investigations of Power Line cause Wildfires should have a Case Manager assigned:

A. Once the evidence has been collected and documented
B. When the case has been determined to involve criminal negligence
C. When the investigation has determined that the fire’s cause is suspected to be electric utility related
D. When the case has been slated for fire suppression cost collection or damage recovery

The correct answer is: C.

The Case Manager is an integral part of the entire investigation and litigation process.

TRANSITION to Unit 3: System Description