Was it Electrical???

I attended a fire seminar along with a number of investigators from a large city fire department. I overheard two of them talking and one said, "if I can't figure out what caused the fire I blame it on electrical."

It is true that electrical failures cause fires, but not as many as get blamed on that cause.

Electrical Investigations fall in several categories:

- **Lightning Damage Claims** - This type claim is common during the summer season and includes damage to air conditioning equipment, appliances and various types of electronic equipment, including computers. The best protection for computers and electronic equipment is to do what our parents did when a storm came up. Just unplug it from the power line. Don't forget the modem!
- **Electrical accidents where personnel are injured** - Occasionally an employee is hurt on the job while working on, or around electrical equipment. In a case like this it is often important to establish whether the equipment failed, or if the employee accidentally contacted an energized part. Other injuries sometime occur when an outsider is doing contract work on the premises. In an accident of this type, was the injured person at fault, or was he required to work under unsafe conditions.
- **Fires where an electrical wiring failure is suspected as being the cause of the fire** - Almost all fires occur in facilities containing energized electrical wiring. It is often, but not always, possible to determine if the wiring in a facility failed causing the fire. It is very helpful if the investigator can be on the scene before other investigators rearrange it too much.
- **Fires where a failed electrical appliance is suspected as the cause of the fire** - It is my conclusion that more fires are caused by failed appliances than by building wiring failures. These failed appliances can often be examined away from the fire scene at a later date. The problem with this approach is that the initial investigator may not establish that the failed appliance was the most likely source of the fire, that it was located at the likely origin point of the fire, and that there were no other sources of combustion at the origin point.
- **Electrical Utilities are sometimes blamed for problems that occur on the customers service supply** - This type complaint often requires the investigation of the voltage supplied to the customers' facilities. Sometimes the utility is blamed for a fire that damages the customers' property.

Electrical Investigations fall into many categories and no two are exactly alike. The best approach is to get on the scene as soon as possible, before the evidence is disturbed any more than is necessary to secure the scene.

by Dewey Griffin

Children Running - Speed Testing

For those accidents that involve pedestrians, the speed of the pedestrian to or from the impact point can be very important toward resolving issues and reconstructing the accident. Recent accidents that VCE investigators have helped to resolve have involved a child running to cross a roadway and being struck by a vehicle. One issue; did the driver of the vehicle respond promptly with evasive action? Knowing the proper speed to assign to the moving child was necessary to resolve the question.

Empirical data are available from computer programs and other reference material at VCE. These data are from creditable sources such as University of Texas A & M, City of San Diego, CA Traffic Engineering Department, AASHTO Handbook, and Northwestern University Traffic Institute Accident Reconstruction Manual. In addition, VCE investigators have and continue to supplement these data with tests made with subjects that are more specifically matched to the accident conditions.

The most recent testing by VCE involved 3 and 4 year old male children from a local day-care center. Test were to determine average running speeds during a distance of 40 feet. The table shows the results that were found.

VCE TEST DATA MAY, 1999						
AGE (yrs)	# & SEX TESTED		AVG RUNNING SPEED (ft per sec)			
			0-20ft	0-40ft	20-30ft	20-40ft
3	5M	slow	7.4	8.3	8.3	8.0
		avg	9.0	9.6	9.5	10.4
		fast	10.0	10.8	10.6	11.8
4	5M	slow	10.0	10.8	10.6	11.1
		avg	10.9	11.7	11.5	12.6
		fast	11.8	12.5	12.3	14.3

UNIVERSITY OF TEXAS A&M			
AGE (yrs)	# & SEX TESTED		AVG RUNNING SPEED (ft per sec) 30 ft.
3	49M&F	slow	5.5
		avg	8.9
		fast	10.4
4	63M&F	slow	8.0
		avg	10.4
		fast	12.2

Previous testing by VCE have involved both male and female children of various ages on surfaces similar to those of the accident in question. Speed measurements have been determined with stop watches and video recordings. All VCE testing tailored to answer questions and resolve specific issues for the involved claim or litigation.

by Earl Hutchison

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Quote of the Month

"A friend is someone who listens without having to say anything in return."

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Carl Hudson - Roof Specialist

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Test Your Accident Reconstruction Skills

Which stops in a shorter distance a loaded tractor/trailer or an unloaded tractor/trailer?

Answers to March/April 1999:

What factor is used to convert MPH to FPS (feet per second)?

Where does this factor come from?

This factor comes from dividing 5280 feet (1 mile) by 3600 seconds 1 hour)

Conversion Factor = 5280 divided by 3600 = 1.467

10MPH = 14.6 FPS

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