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A PUBLICATION OF PHOENIX INVESTIGATIONS, INC.
PHOENIX LABORATORY AND ENGINEERING SERVICES



*Serving the Western United States and Rocky Mountain region
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Vol. 1, No. 3

May 2005

ASBESTOS AT A FIRE SCENE

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Did you ever ask yourself when examining a fire scene, "What kind of hazardous material am I getting into now?" Hopefully as an investigator you're always thinking those thoughts. But the question is, "Are you really aware of what can harm you and do you prepare yourself for those questionable situations?" One of the common hazards that fire investigators frequently deal with is asbestos. During any investigation, you may or may not know if asbestos is around, but you should be aware that it comes in many different forms and has been around since the early 1970's.



What is asbestos? Asbestos is a naturally occurring mineral typically seen as a fiber. Asbestos has three common types of fibers: Chrysotile, Amosite, and Crocidolite. The most common is the Chrysotile, also referred to as white asbestos. Asbestos is made up of numerous small fibers that are very hazardous once airborne. The exposure time for asbestos to affect anyone can range anywhere from 15 to 40 years.

Two types of diseases that may develop from exposure to asbestos are Asbestosis and Mesothelioma. In either case, the type of exposure will depend on the fiber concentration in the air, the duration of exposure, the worker's breathing rate, the weather conditions, and whether or not the worker is wearing protective equipment. All of these factors determine how the exposure will affect a worker in an asbestos environment.

As stated above, asbestos fibers come in many different forms and it's hard to determine all of them. A few common materials asbestos may be found in are: cement pipes, vinyl floor tile, blown-in insulation, chalkboards, fire blankets, adhesives, wallboard, construction mastics, roofing shingles, and heating/electrical ducts. Take into consideration that these are only a few of the different materials.

Knowing that asbestos has the potential to be on every fire scene, do you as an investigator take the safety precautions or not? Every fire scene exposes you to potentially breathe in dust, ash, dirt, and even small cotton fibers. Most of the cotton fibers you inhale will probably contain some form of asbestos. Once you breathe it in, it goes directly to your lungs where it remains because it doesn't dissolve or break down overtime.

Two general safety standards investigators can follow are the OSHA standard 29 CFR 1910.1001 or the Construction Industry standard 29 CFR 1926.58. There are no certification requirements, but your employer must have a training program and a medical surveillance program. One way to acquire the training is by attending an Asbestos Awareness class, which is only 2-3 hours long, and completing a physical from your doctor. The main part of the medical surveillance requires a PFT test or Pulmonary Function Test, better known as a blow test. This test measures your lung capacity to determine how much air capacity you have.

Upon passing this test, you can use a respirator in a hazardous atmosphere. Once you've completed the training and the medical tests, only a yearly physical is required to keep the qualifications current.

Most of the investigators at Phoenix Investigations, Inc., are certified to work in an asbestos environment. Precautions that must be taken before entering into a hazardous environment include wearing two full Tyvek suits, rubber boots, two pairs of rubber gloves, and a face respirator. Duct tape is used to seal the loose areas around the gloves and boots. All of these are required and must be worn to enter in a hazardous area containing asbestos.

When you've completed a scene exam or need to exit a hazardous area, the outer Tyvek suit and gloves will need to be removed in the hazardous area and thrown away in a container. The inner suit and gloves will be taken off when completely exiting the hazardous area and again placed in a container. Your boots and respirator, excluding the respirator filters, which are discarded, can be cleaned and reused. If evidence items or tools are to be removed from the hazardous area, they must be cleaned before exiting.

Remember it's up to you to be responsible for your well being and protect yourself from this hazard.



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Based in Denver, Colorado, Phoenix Investigations, Inc., conducts investigations, engineering, and laboratory services throughout the western United States and Rocky Mountain region. We are licensed as required.

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