**Affirmm Business Luncheon**

**Monday, June 17, 2013**

**The Capital City Club**

**Columbia, SC**

1. **History of controls in asbestos abatement:**

EPA and OSHA began regulating asbestos in the early 1970’s. About 30 years ago, the asbestos abatement industry began commercially removing asbestos from buildings. The early removals of the “high risk” materials, Thermal System Insulation and fireproofing were done with few controls, and high exposures and contamination of building environments were common. The Industrial Hygiene community reacted on behalf of building owners with abatement specifications to control and contain the high fiber release from the abatement jobs. In the late 1980’s, I served on a committee with the National Institute of Building Sciences to develop a “Model Specification Guide” for consultants to use in writing specifications for asbestos abatement, that was eventually updated in the middle 1990’s. The thought was that removal of the “high risk” (friable) materials created a great hazard for both the workers and the building environment. The risk was extreme, so the controls had to be extreme. Cost was not a consideration, the fiber release had to be contained. This was accomplished with building a “leak-tight” containment with multiple layers of polyethylene to enclose the work area. This concept, and the extreme controls, have continued to the present day – the control of generated airborne fibers that have been released by abatement. They never changed. The abatement contractors, however, have made great strides in removing these high risk materials with better and better methods, just as OSHA predicted they would in the early 90’s. Where at one time, above Permissible Exposure Limits were common, now we expect to remove asbestos at least 10 times below the PEL. However, there are still asbestos fibers being generated, therefore still a hazard, however greatly diminished. The “containment” concept served the building owner well, but did little for worker exposure issues.

1. **What we need – the “Magic Wand”**

The main issue today with asbestos abatement controls should be worker protection. If the worker can be protected with “no exposure”, then the building environment can also be protected. However, not all contractors really care about the worker protection issues. Some contractors are very good with conventional controls, but unfortunately, some are not. If we are to protect workers across the board, and therefore the building owner, what the industry needs is a method of removing even the high risk materials with no fiber release to the ambient air, and a method so effective that the average contractor, even if he doesn’t care about worker protection, will obtain exemplary results – no fiber release. What the industry needs is a “Magic Wand” that we can wave at the asbestos removal job, and have no fiber release in the first place. I believe that we have that “Magic Wand” today with Foamshield. Foamshield has a “triple advantage” over conventional “wet methods” with a foam blanket that is impermeable to fiber penetration, a superior wetting agent called “Fiber Stop”, that encapsulates the fiber itself so that it cannot become airborne, and a chemically added electrical charge that attracts and holds airborne particulate. In reality, the foam blanket is a containment more effective than the polyethylene enclosure because the poly enclosure only contains previously generated particulate. It is much better that the airborne particulate are never generated in the first place, therefore the outer containment is usually not necessary.

1. **“Friability” of broken floor tile**

My last comment is about the “friability” of broken floor tile. “Friable” is an EPA term that means that a material can be reduced to powder by hand pressure – between the thumb and finger. It is a main applicability trigger for EPA regulations. It is well defined in any EPA asbestos regulation. By reading the regulations, obviously, typical broken floor tile is not friable. In the preamble to the EPA NESHAP regulation, EPA uses about a half page to explain why they took the word “broken” out of the definition of “friability”. Breaking something does not make it friable. However, when dealing with the main EPA asbestos regulation, the asbestos NESHAP, friability is not the central issue - "regulated" is. The main thing that an owner or contractor needs to know for NESHAP applicability is, ‘is it regulated, or is it not’. Many regulators, and some local regulations will regulate broken floor tile under the asbestos NESHAP. Also, the NESHAP regulation states that a non-friable material is regulated if it is “subjected to sanding, grinding, cutting or abrading”. EPA has determined that mechanical removal will accomplish the aforementioned, therefore rendering a non-friable material regulated. So, it is a fruitless argument to debate friability. The main issue is, ’Is it regulated or is it not’.