



Engineers, Inc.



## Susan Evans

joins MDE's staff

MDE is expanding its capabilities, welcoming Susan Evans, who is certified in the comprehensive practice of industrial hygiene (CIH) by the American Board of Industrial Hygiene (ABIH), and is a Certified Safety Professional (CSP). Ms. Evans brings to MDE experience in industrial hygiene and indoor air quality investigations for commercial, governmental, residential complex, industrial buildings and construction sites. Ms. Evans has a diverse background in industrial hygiene (including environmental, health, and safety) field investigations, corrective response oversight, program development, compliance audits, risk analysis, and training.

Ms. Evans comes to MDE from Air Quality Sciences – Building Consulting Inc. in the San Francisco Bay area, where she conducted and managed indoor air quality investigations, and designed and provided oversight for microbial remediation projects. Prior to her work at Air Quality Sciences, Ms. Evans worked for California Industrial Hygiene Services in Napa, California where she provided a wide range of industrial hygiene, safety and environmental consultation services. Ms. Evans also is experienced in performing building investigations and corrective actions involving asbestos and lead. She also has twelve years of experience in oversight of building design, construction and renovation, including ventilation systems. Ms. Evans received her Bachelors of Science degree in Structural Engineering from the University of Wisconsin-Milwaukee. She is registered as a Professional Engineer in Wisconsin and Georgia.

Ms. Evans will provide to MDE's clients a variety of new consultation services. Examples of the types of service offerings include:

### New Buildings:

- Studies of airborne pollutants, including volatile organic compounds and aldehydes, to assure compliance with the State of Washington Indoor Air Quality (IAQ) Program pollutant source control requirements. These are required for Washington State buildings and are often incorporated into private sector or local governmental building specifications.
- Indoor Air Quality (IAQ) studies for LEED (Leadership in Energy and Environmental Design) certification under the Green Building Rating System™.
- Development of site specific safety or environmental plans.

### Occupied Buildings:

- Chemical or microbial studies for airborne contaminants.
- Indoor air quality investigations.
- Worker exposure evaluations for potential chemical, biological or physical hazards.
- Risk analyses for building ventilation operation, chemical usage and storage, indoor air quality, and water quality.
- Mold, asbestos and lead assessments for property transfers or insurance risk evaluations.
- Pro-active program development and training for potentially problematic building conditions such as mold, moisture control, or asbestos.
- Remedial (corrective action) plans.

### Litigation Support:

- Building microbial evaluations that may be associated with construction defect, envelope failure evaluations or fires.
- Occupant exposure studies for a variety of contaminants.

If you have questions whether industrial hygiene consultation services may be of assistance to you, please do not hesitate to call Susan Evans at (206) 622-2007.

## APPLIANCE FAILURES

In the last month we witnessed Hurricane Isabel as it wreaked havoc on the east coast capturing the attention of the whole nation and others around the world. But while we sit and watch in the comfort of our homes are we safe from catastrophic damage? If you own an appliance, maybe not. Millions of lives are turned up side down each year by appliance failures. Damage can range from a water soaked floor causing inherent mold growth (see article at left), to the loss of valuable family heirlooms, to the horror of a home burned to the ground with fatalities.

Water damage caused by appliances and pipes ranks second only to hurricanes in total number of homes affected and insurance claims. Marc Cramer of Smart Sensor Technologies Inc. said, "One estimate puts the average water-leak insurance claim between \$30,000 and \$40,000 – and up to \$90,000 to \$100,000." Washing machine hose failures alone cause about \$150 million in damage per year to homes

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## Appliance Failure Resulting in Water Damage and Mold Claims



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in the U.S. and Canada. At MDE we see numerous cases involving appliance failures that result in water damage to the home. Washing machines have the potential to release water into the structure at high rates. New front-loading versions have significant vibration characteristics that can accelerate fatigue. Often the only indication given that a water heater needs to be replaced is the uncontrolled release of water into your house. Likewise, fires caused by appliances can cause catastrophic damage. According to the Consumer Product Safety Commission's latest compiled data, the 1998 residential fire loss related to appliances and other electronic equipment totaled \$3.5 billion dollars. Again, at MDE we investigate a wide range of appliance related fires. Dryers are potential fire sources due to their high temperature operation and high current flows. Dishwashers are also sources of very hot temperatures and are often made of plastics that can become fuel in a fire event.

While the appliance manufacturer may claim that their appliance has been designed and tested to not cause any

form of damage through failure, it is our experience at MDE that many in fact do. One common reason for appliance fires is through misuse by the owner. However, another major cause is component fatigue. Also, faulty designs or poor manufacturing can be at the root of the cause.

When you experience a possible failure of an appliance that causes collateral damage, 'Save the part!' These events need to be documented and the source of the failure determined. Only then can you bring the manufacturer, seller or installer to the table for discussion. MDE has a library of experience with appliance issues and can assist you with on-site investigations, evidence collection, preservation, and examination. Let the unmatched technical expertise of MDE lead you through the loss caused by a gas, electric, or water appliance failure.