CASE STUDY - HURRICANE SANDY - (PART 2)
NINE TIPS TO PREVENT MOLD ILLNESSES

HEADLINE: THOUSANDS OF STORM VICTIMS BECOME ILL

AET EXPERIENCE: Occupants of damp indoor environments frequently report a broad range of symptoms including coughing, wheezing, sneezing, headaches, fatigue, nasal stuffiness and irritation of the eyes, nose and throat. Dampness-related illness can also progress into asthma, hypersensitivity pneumonitis, respiratory infections, bronchitis and allergic rhinitis and sinusitis. Illnesses related to *Hurricane Sandy's* storm surge can also be exacerbated by disease-producing viruses, bacteria, and parasite contamination transported by flood waters including raw sewage, insecticides, pesticides and other chemicals which may also be present.

Additional facts/reasons to expect more illness

- Many *Hurricane Sandy* victims have moved back into their homes without heat or hot water. Cold-related illness will increase/worsen symptoms as the winter sets in and the flu season continues.
- People at risk include the elderly, children, and persons with pre-existing illnesses and weakened immune systems who are highly sensitive/susceptible to the cold and mold-related illness. Building-related exposures are 24/7 for homeowners.
- Many residences have still not been remediated or have been do-it-you-self remediated. Even remediation by professionals has unknowns, restrictions, and limitations including hidden mold and water damage in concealed areas.
- Many residences have dirt-floored crawl spaces where the water table is <3 feet below the dirt surface. Evaporation of water from the ground can release 12-18 gallons of water per day in a 1000SF crawl space. Continued moisture release will result in mold growth and associated musty odors. These odors can be carried into the home as warm air rises from the stack effect. Moisture also provides a favorable environment for cockroaches, rodents and dust mites.
- Mold growth has been curtailed somewhat by the cold temperatures; mold growth occurs best between 50˚F and 90˚F. Spring rains and summer heat and humidity will accelerate mold growth.
- Vacation residences that have not yet been remediated. Closed buildings promote lingering conditions which can have an exponential effect for mold growth and proliferation of bacteria.

Nine Tips to Prevent Mold Illnesses

1. **Treat symptoms as building-related**: Persistent or worsening respiratory symptoms must be evaluated by a health care professional. Occupants must be relocated if diagnosed with building-related respiratory disease.
2. **Regularly inspect your home (roofs, ceilings, basements, walls, crawl spaces, etc.)**: Look for signs of water damage, staining or discoloration on surfaces from mold growth. Purchase a moisture meter at your local hardware store (cost $50)to verify building materials are dry. Repair, replace or make corrections as necessary.
3. **Determine your remediaton status**: Remediation is not a single response, but a series of corrective actions involving the removal, repair, cleaning, drying, and replacing of water damage building materials. Initial decision-making must be challenged and results verified.
4. **Prevent future water infiltration**: Spring rains are coming. Water must flow away from your foundation; the average roof can shed 1000 gallons of water during 1 inch of rain. Check your gutter system; downspouts should extend at least 6 feet from the foundation. Water should not puddle around the foundation, and surface should slope away from the foundation
5. **Crawl spaces**: Keep crawl space dry. Install a vapor barrier over the entire dirt floor. Vapor barriers consist of 6 mil plastic sheeting which is overlapped 6-12 inches at each seam and extends 12-18 inches up foundation walls. This can reduce evaporation to less than 1 gallon per day. Equipment, ductwork, piping, etc. inside the crawl space must be insulated to prevent condensation problems.
6. **HVAC, gas and electrical**: Have these essential health and safety building systems checked by a licensed professional. Salt water promotes corrosion of electrical system components and metal surfaces.
7. **Domestic water services:** Many systems were contaminated as a result of the storm surge and have not yet been re-verified for consumption. Use of bottled potable water is essential for cooking, consumption and hygiene.
8. **Hire a Mold Professional**: Hidden mold/water damage identification requires special tools (such as infrared cameras),training and experience. Odors can be evaluated by air sampling for mold volatile organic compounds (MVOCs). Musty odors are a byproduct of mold growth and excessive moisture can result in rotting of your wood components causing structural failures.
9. **Reconstruction**: Do not reconstruct before being sure and verifying that the remaining materials have been professionally dried or mold will regrow. Insurance dollars spent for reconstruction can also serve to modernize your home based on compliance with current building codes. Use your funds wisely; See AET's Tip of the Month (A Dozen Tips to Allergy Proof your House).

WARNING: The reported illnesses since October 29th, the date of *Hurricane Sandy*, are just a tip of the iceberg. Spring rains will add moisture impact; summer months will bring higher humidity and temperatures. Mold growth will accelerate, odors become more prevalent and reported illnesses significantly increase.

Be prepared! When you need professional help or advice, email Roy Mosicant, CIH at r.mosicant@aetinc.biz or Alan Sutherland, CIH, CHMM at a.sutherland@aetinc.biz or call 610-891-0114. We provide nationwide services; phone consultations are free. Check out the full range of environmental contracting/consulting services we provide at our website www.aetinc.biz.