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Mold Prevention in Buildings

In order to prevent mold and its damaging effects, employees need a basic understanding of mold, what causes mold, and how to prevent the growth of mold within their facilities.

1. **Understanding Mold:** Mold is a fungi, similar to what we see as mushrooms or yeast. Molds are easily recognizable by their appearance. Molds are fuzzy, usually green in color, but can also appear as black, brown, white, yellow or even red. Molds grow on wood, cloth, leather, sheetrock, insulation and even the foods we eat. Molds reproduce by making spores. These spores are invisible to the naked eye. To most of us, molds only exist when we "see" it growing. But according to the Environmental Protection Agency (EPA), the microorganisms that become mold are always present in our environment.

2. **What is susceptible to mold:** Many commercial buildings, schools, and municipal facilities are susceptible. Mold requires moisture to grow. That is why it is so important to prevent, reduce and control excess moisture in the buildings. Buildings constructed since the 1970s up through the mid-1990s are especially prone to moisture problems. The same holds true for older structures that had significant renovations performed during the same period (since then, construction techniques have changed to alleviate this problem).

   "Tight building syndrome" – which refers to a building that is very tightly insulated, while lacking adequate ventilation – was a reaction to the first oil crisis. Without ventilation, moisture builds – a ripe scenario for potential mold growth. Inadequate ventilation causes negative pressure. As a door is opened, outside air rushes-in, carrying with it mold spores.

3. **Where mold can grow:** Anywhere moisture is uncontrolled is an ideal environment for mold growth. Mold adheres and grows on common items found in most school and municipal buildings – paper and wood. These materials contain the nutrients on which molds thrive. With the addition of moisture, mold can grow on these surfaces within 48 hours – an unoccupied building over a weekend.

   Suspect materials are:

   - Books and papers
   - Carpet and backing
   - Acoustical ceiling tiles
   - Cellulose insulation
   - Roof sheathing
   - Wallboard – sheetrock & drywall
   - Wallpaper

Locations and areas to check include:

- Bathrooms
- Locker rooms and showers
- Crawl spaces, below-grade areas and basements
- Kitchens
- Light fixtures
- Leaking HVAC units and drip pans
- Ventilation ducts
- Roofs and soffits
- Windows

4. **Mold prevention recommendations:** "Best practices" suggest that all sources of water/moisture problems be resolved BEFORE they become mold problems. The following are recommendations to prevent mold growth:

    - Clean and dry wet areas within 24 hours
    - Do not use comfort heat or hot air dryers to dry the area(s). This will only accelerate the growth. Call in a disaster recovery contractor
    - Repair leaking plumbing as soon as it is discovered
    - Watch for condensation, water spots, drips or any breach in the building envelope
    - Increase ventilation of cold, dry air to reduce indoor moisture. Maintain a relatively low indoor humidity level – EPA recommends 30% to 50%.
    - Empty HVAC drip pans regularly, and check condensate lines to ensure that they are clear
    - Vent all moisture-rich environs to the outside. Dryer vents, bathrooms and shower stalls are examples.
    - Provide drainage around foundations. Slope the ground away or use drains.

Program Activities Calendar:

- Conduct an initial survey of all areas within the building(s) for signs of mold or atypical moisture or water
- Incorporation of best practices, listed above, into the routine and preventative maintenance schedules
- In case of a serious water problem, such as a burst pipe or a sewer backup, call in a restoration contractor immediately. Though most custodial staffs do an excellent job of extracting standing water, professional restoration contractors have the knowledge and equipment to thoroughly dry buildings and contents to prevent mold damage.

Alteris Insurance Services, Inc.
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