Fiberglass Duct Cleaning Safe Work Practices

**Duct Cleaning** - Prior to reaching a decision to clean a duct, an investigation of possible causes to the quality of the ducts needs to be carried out. Improper maintenance, operation, or poor filtration will allow moisture and debris to gather within the ducts. Ducts should only be cleaned when needed.

**Mold growth** – When there is a substantial amount of mold growth on surfaces of the ductwork, this may include both the fiberglass insulation and the sheet metal.

**Vermin** – When there is an infestation of vermin or insects within the ductwork that can bring disease and destroy the structure of the materials.

**Clogged Ductwork** – When the ducts are heavily clogged with dirt, dust and other debris that can end up returning into the occupied building space.

Three most common practices for cleaning ducts:

- **Contact vacuum** - Uses a portable vacuum with a HEPA filter. Direct contact is made with the vacuum brush and the duct surface in order to remove dust and debris.

- **Air Washing** - Injection of compressed air into the duct through a special duct insertion nozzle. Dust and debris become loose, and is then vacuumed out.

- **Power Brushing** – Use of a bristle brush to mechanically remove debris; it is then drawn down to the end of the duct for vacuum extraction. This method is usually harsh on older duct lining, easily causing damage and releasing fiberglass into the airstream.

**Personal Protection** – Workers should wear professionally laundered work uniforms to prevent transport of contaminants home. Workers should wear protective clothing including a mask or respirator, safety glasses or goggles, a cap, pants and long sleeve shirt.

**Respiratory protection** – Wear appropriate respirators in areas where mold particulates and volatile organic contaminants may be present.
Barrier Gloves – Gloves that will prevent the penetration of fiberglass fibers. Disposable barrier gloves such as nitrile minimize contamination after work is completed.

Ventilation – Attempt to clean the fiberglass ducts in a well-ventilated area to maintain inhalation exposure below the OSHA PEL. Contact EHIS for exposure assessments.

Eye wash and Safety Shower – Locations should be noted prior to conducting work.

Lockers, Showers, and Hand Wash Sinks – Should be provided to wash away fibers.

General Safe Work Practices

1. Vacuum fiberglass dust with a HEPA vacuum or wet wipe before and after work.
2. Handle fiberglass as little as possible to minimize exposure and the spread of fibers.
3. Use correct cutting tools such as a sharp utility knife and a straight edge.
4. Use tools and wet methods that minimize dispersal of dust when possible.
5. Change work clothes after a fiberglass installation or servicing project.
6. Remove clothing and gloves by rolling the material onto itself to contain and minimize contamination of fibers.
7. Wash work clothes separately and wipe washer basket after cycle is complete.

Specific Safe Work Practices

1. Inspect the system before cleaning to be sure that there are no hazardous containing materials in the duct system such as Asbestos. Asbestos containing materials require specialized procedures and should not be disturbed or removed except by specially trained and equipped contractors.
2. Clean fiberglass with a high-efficiency particulate air filter (HEPA) vacuum or use vacuum equipment that exhausts particles safely outside of the building into particulate collection equipment.
3. All equipment located outside should be placed downwind and away from nearby air intakes and other points of entry into the building.
4. Protect the carpet and any furnishings during cleaning.
5. Use only soft-bristled brushes for fiberglass duct board and sheet metal ducts internally lined with fiberglass.
6. Take care to protect the duct work, including sealing and re-insulating any access holes that were made or used so they are airtight.
7. All components of the HVAC system must be returned to those settings prior to the cleaning process.