

## Combustible Dust Awareness

**Coal is the primary source for fuel and combustible dust at Evergy facilities. Fly-ash, a by-product of burned coal, can be combustible under certain conditions and should therefore be treated as a combustible dust hazard also. These dusts may pose a respiratory risk as well.**

Combustible dusts are fine particles that present an explosion hazard when suspended in air under certain conditions.

For a combustible dust explosion to occur, an ignition source or fire must be present (which includes the three (3) elements necessary for a fire: oxygen, fuel and heat). Additionally two (2) more elements must be present for an explosion to occur: Confinement and Dispersion.

A dust explosion can be catastrophic and cause employee deaths, injuries, and the destruction of entire buildings. In many combustible dust accidents, employers and employees were unaware that a hazard even existed.

The Chemical Safety Board's (CSB) report on combustible dust explosions reports that there have been over 280 fires and/or explosions, 119 fatalities and 700 injuries have occurred from 1980 – 2005. More than 70 additional combustible dust explosions have occurred since 2005.

In many events, an initial (primary) explosion in processing equipment or in an area where fugitive dust has accumulated may dislodge accumulated dust into the air or damage a containment system (such as a duct, vessel, or collector). As a result, if ignited, the additional dust dispersed into the air may cause one or more secondary explosions. These secondary explosions can be far more destructive than the initial explosion due to the increased quantity and concentration of dispersed combustible dust resulting in additional deaths as well as other damage.

Because coal dust can be easily dispersed into the air, **do not attempt to extinguish any fire in a posted or known combustible dust area. Immediately vacate the area and report any fire immediately to the Control Room.**

To review Evergy's fire prevention and emergency procedure, contact your Appointed Evergy Representative.

Except when allowed by an Evergy Hot Work permit, only non-sparking tools and intrinsically safe equipment shall be used in any posted combustible dust area. This restriction applies to all types of communication equipment as well. Contact your Appointed Evergy Representative for information regarding the Evergy Hot Work procedure.

The Electrical Classification of the area may include restrictions and your Appointed Evergy Representative should be contacted for any additional information.

Housekeeping is performed at specific intervals to control combustible dust hazards. Your Appointed Evergy Representative will check with the Shift Supervisor and Fuel Supervisor for housekeeping schedules that will take place in the areas you will be working in. For additional information on Evergy's Combustible Dust Hazard Control Program and Evergy Work Practices and Housekeeping, contact your Appointed Evergy Representative.