Coal becomes unstable when its moisture content falls below equilibrium. Coal dust is the most unstable form of coal, because its moisture cannot be retained. When there is a reduction in moisture content, the oxidation process is accelerated generating ignition temperature heat and carbon monoxide (CO). If measures are not taken to monitor this process, spontaneous combustion may occur. This presents a problem in coal storage areas and dust collection systems.

Most dust collectors come equipped with fire protection devices such as sprinklers, thermal sensors, or carbon dioxide systems. These devices are to extinguish in the event of a fire, however, they provide no warning before a fire develops.

Because of these concerns Air-Cure has taken measures to offer CO detection equipment. With a CO Monitoring kit you can achieve higher levels of fire monitoring and detection for your plant. With this technology CO readings can be continually logged from the system, which can indicate a potential problem when levels begin to exceed a pre-determined pattern. Periodic calibration of the unit is required to have proper indication.

The Carbon Monoxide Kit also features:

- Electro Chemical Cell to Measure CO
- Replace Sensor: Indicating time to replace Cell
- Sensor Guard: Protects from dirt & moisture
- Local readout of CO level & Remote signal
- Recalibrate from outside the dust collector
- Retrofit Kits available
Chemical Injection System
This system is designed to inject a chemical enhancer to
decrease the time to extinguish a coal fire, increase safety,
and decrease potential equipment damage.

In the event a fire does occur inside a dust collection filter,
the fire protection system (sprinkler system) will activate.
With Air-Cure’s Chemical Injection System, a small amount
of F-500 ™ chemical is metered into the fire water. This
chemical has been shown to aid in penetrating coal dust
accumulation and extinguish quicker than just water.

This F-500 ™ chemical is already used by many power
plants in their bunker and silo area fire suppression systems.

The Chemical Injection System is compact and can be
mounted in the heated support enclosure of your dust col-
lector, or in a heated area close to the fire suppression sys-
tem.

The Chemical Injection System features:
✔ Compact Design
✔ Corrosion Resistant Chemical Tank & Fittings
✔ 3/4 HP Metering Pump
✔ Prepiped on Base
✔ Electrical Controls