

Use And Care Of Activated Carbon

For odor control applications, granular activated carbon that has been manufactured from coconut shell or bituminous coal is used. In some cases the carbon has also been impregnated with caustic or other inorganic materials in order to enhance its capacity for various compounds. Important physical and chemical properties of the activated carbon that is used in this application will appear elsewhere in this manual.

Activated carbon should be stored in a cool, dry, well ventilated area. While temporary outdoor storage is possible, indoor storage is recommended. Exposure to direct sunlight should be avoided. Storage of open carbon containers (especially if the plastic liner has been opened) should also be avoided since the exposed carbon will begin to adsorb vapors from the air.

Contact with skin, eyes, or mucous membranes should be avoided, especially when using caustic impregnated carbon (IPH). Dust as well as the carbon itself can be irritating. Protective clothing MUST be worn when handling the carbon. This includes use of chemical-resistant rubber gloves, full face shield, and dust mask. A material safety data sheet is located at the back of this manual for further information.

Static electrical charges can accumulate when adsorption tanks are fabricated from non-conductive materials such as FRP, PP and PE. In order to prevent electrical shock or an ignition hazard, the treatment system must be well grounded. A grounding lug is located on our metal skids or Poly vessels.

Care is required to avoid a rapid rise in bed temperatures and subsequent ignition of the carbon. Such fire hazards are usually the result of the following conditions;

1. High heat of adsorption given off by the carbon treating very concentrated vapors through the carbon bed.
2. Accumulated heat of reaction caused by oxidation of vapors during the use of impregnated carbon (IPH).

Fires hazard can be minimized by use of the following:

1. Dilute concentrated vapors with outside air or inert gas.
2. Humidify the inlet air stream using water vapor to help carry away heat that is generated.
3. Maintain proper air flow and distribution to prevent localized heating effects and insure adequate heat dissipation from carbon bed.
4. Never shut the carbon bed down with carbon that has been in use for less than one month. If a long shut down is expected, remove all carbon