Baghouse Filter
Pre-Coat Procedure

- New filter felt media is porous and fine particulate ½ micron and smaller will leak through the filter media. Pre-coating starts a base cake on the media to increase filter efficiency and extend filter life.
- There are many types of pre-coat materials available (diatomaceous earth, lime, perlite, cellulose, activated carbon, etc.) Chose an appropriate pre-coat material based on filtration requirements and the particulate being filtered. If required, consult the manufacturer for recommendations on the best selection of pre-coat for your applications.
- Some pre-coat materials may require mixing several ingredients. Prior to coating filters ensure all pre-coat ingredients are thoroughly mixed to achieve uniform consistency.
- Prior to pre-coating the filters in a baghouse dust collector
  - Ensure that all previous dust has been removed from the baghouse hopper and turn off the hopper dust removal equipment (i.e. airlock)
  - Deactivate and lockout the baghouse cleaning system to prevent bag cleaning during the pre-coat period.
- For negative pressure baghouse systems (baghouse under suction) the pre-coat can be injected through ports or inspection doors in the duct, or ports on the dust collector inlet or hopper.
- For positive pressure baghouse systems (fan blowing into the dust collector) precoats should be injected into the system ductwork on the suction side of the positive pressure system fan
- Plan on a minimum amount of one pound pre-coat for every 20 sq feet of baghouse filter media area to complete the filter coating.
- It is recommended to operate the system at 50% of the design air flow to the baghouse for a resulting velocity of approximately 2000 FPM through the inlet duct. Do not drop the velocity below this amount. The system volume can be reduced by a VFD or fan damper.

Baghouse Filter Pre-Coat Procedure (cont.)

- Use a pre-coat feed rate of $^{1}/_{3}$ pound per minute per 1000 ACFM of reduced air flow into the baghouse. For example, a 25,000 ACFM reduced air / 1,000 ACFM x $^{1}/_{3}$ equals a feed rate of 7.5 lbs./minute.
- Isolate each filter compartment and inspect the filter bags for adequate pre-coat cake (approximately $^{1}/_{16}$" thick). Check the collector hopper to be sure there is not a large amount of pre-coat dropout.
- Once the pre-coat process is complete, increase the air volume back to the normal dust collector design flow level and turn on the dust removal equipment (airlock). However, do not reactivate the filter bag cleaning cycle until a differential pressure of 3 to 4 inches SPWG is measured across the bags. This ensures a seasoned cake of pre-coat has been achieved on the filter bags prior to activating the initial cleaning cycle.