

Baghouse Pre-Coat Procedure

Equipment:	Baghouses, with heavy oil or waste oil	Date Issued:	6-17-2000
Additional Reference:	none	Revised:	no
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PURPOSE:

Considering the frequent use of waste and heavy fuel oils and the associated potential for chemical attack and damage to the bags, it is now **standard practice**, in all start-ups of new bags, whether in a new or used baghouse, where any waste or heavy oil is the fuel, to pre-coat the bags before firing the burner for the first time.

PRE-COAT AGENT:

Use hydrated lime as the pre-coat agent. Pulverized limestone may be used if hydrated lime is not available. (The required quantity of limestone is twice that of hydrated lime.) Exercise care to avoid direct contact of hydrated lime with skin, eyes, and mouth. Wear gloves, long sleeve shirt, and long pants when handling hydrate lime. **CAUTION: Never use quicklime (dehydrated limestone).** Quicklime can cause severe chemical burns to eyes, skin, lungs, and other tissue. Be careful to read and comply with MSDS sheets on all pre-coat agents.

METHODS OF APPLICATION:

1. Do not fire the burner.
2. Turn the bag cleaning system off.
3. Introduce the pre-coat agent into the cyclone vortex tube or some point in the ductwork between the cyclone or knockout box and the baghouse. Do not introduce lime into a knockout box or any point upstream of a cyclone or knockout box, since these pre-collectors or separators would prevent much of the lime from reaching the baghouse.
4. Open and secure the pre-collector or duct access door.
5. Start the exhaust fan and open the exhaust fan damper to about the 50% position. (A more open damper position may cause the motor to trip due to high amps.)
6. Introduce lime through the open door as uniformly as possible. Do not throw whole bags of lime into the system. Avoid allowing paper or plastic bags or other foreign materials to enter the system since they could jam a screw conveyor or airlock.
7. Installed plant lime systems may not be used for pre-coating since much of the lime introduced this way will not reach the baghouse.
8. Do not restart the bag cleaning system until the plant has been operated for a while. Allow the differential pressure to climb to 6inWC before activating the bag cleaning system.

AMOUNT OF PRE-COAT REQUIRED:

1. Apply about one pound (approx. 0.5kg) of hydrated lime for every 30 square feet of cloth (2.8 m²).
2. Apply about one pound (approx. 0.5kg) of pulverized limestone for every 15 square feet of cloth (1.4 m²).

Examples: (based on a 67,000 cfm baghouse with 5.5:1 air to cloth ratio):

Hydrated Lime example:

67000 cfm / 5.5 cfm per sq. ft. = 12,182 sq. ft. of cloth

12,182 sq. ft. of cloth / 30 sq. ft. per lb. Of lime = 406 lbs. of lime

Apply 400 pounds of hydrated lime

Pulverized Limestone example:

67000 cfm / 5.5 cfm per sq. ft. = 12,182 sq. ft. of cloth

12,182 sq. ft. of cloth / 15 sq. ft. per lb. Of lime = 812 lbs. of lime

Apply 800 pounds of hydrated lime