

Eddy's Boilerhouse News

TIP OF THE MONTH FOR THE MAINTENANCE DEPARTMENT

By Eddy Emerson

Vent Caps on Stacks

Something as simple as a vent cap on the stack is not an obvious candidate for fuel savings. A strong wind and a bent or damaged stack cover can produce some wild draft effects. These draft effects will change the air/fuel ratio and cause large swings towards excess air conditions and possibly cause smoking. With the lack of good draft control, excess air adjustments must be made to compensate for this effect which can be excessive causing wasted fuel.

This is a very low cost fix with a low to moderate savings. But, we should not overlook the safety issue here. It has always been a mystery as to just how vent covers get bent and pushed over to one side, but they have been known to deflect air into the boiler or furnace in a good wind and cause serious problems and can even back smoke into a building.

Wind deflector for make-up air vents help a great deal also.

Boiler rooms are required to have a certain square footage of free ventilation access per boiler horsepower. In some locations wind driven air pressure can cause draft control problems. One has only to try to walk into a strong wind to grasp the magnitude of the force involved. When the wind is driven into the outside vents boiler room pressure can rise, when on the sheltered side of a building a partial vacuum can form.

This condition can cause burner adjustment problems. The simple solution is to be aware of the potential problem and protect the boiler room from this wind effect. A simple shield can be of great help. The shield can not restrict the amount of air simple the direction.

Not much savings here but some burner failures maybe limited. Be safe not sorry.

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