

Eddy's Boilerhouse News

TIP OF THE MONTH FOR THE MAINTENANCE DEPARTMENT

By Eddy Emerson

Improve Boiler Efficiency

Insulation

Have you noticed that banks are putting branch office in the grocery stores. They learned a few years ago that the fat boy eats so much that he needs a bank in the store to cover the cost of his food. I have a new idea for them, they can put a bank branch at the gas station with a loan officer so we can borrow enough money to actually fill the gas tank. I can't believe the cost of fuel.

Speaking of the cost of fuel, what can we do to save some money on the fuel budget for the boiler room. One way is to repair that insulation. One dollar of insulation now will put big dollars in your pocket later. Most engineers understand the need for good insulation. Therefore, when a plant is first designed and the equipment is installed the piping and equipment are well insulated. That is a good thing.

The bad part is that ten years later the insulation has been removed from valves, piping and even boiler parts, for repairs and this insulation was not replaced. The idea is that the next time the valve (or whatever) is repaired you will not have to waste time (time is money) removing the insulation. It wasn't because the guy

was to lazy to put it back on, because boiler guys aren't like that.

This valve that was not re-insulated saved some cash (let's say \$ 85.00). Now we get to spend \$ 200.00 to 300.00 per year in fuel for five years until the valve needs to be repaired again. Sounds like a good deal to me.

This is a hard one for the bean counters because we have fluctuating loads and temperatures, but it will save a lot of money especially in these days of high energy cost.

I was in a plant the other day and measured valves and fittings that were not insulated. It can out to be something like this

- Eight valves six inches in size un-insulated.
- Twenty three valves $\frac{3}{4}$ - 2 inches un-insulated.
- Three six inch tees and seven six inch 90 degree elbows un-insulated.
- Six foot of six inch pipe and approximately 150 ft of $\frac{1}{2}$ through 2 inch pipe un-insulated.

This doesn't sound like much and it surely didn't look like much in a plant this large but it turns out to be

thousands of dollars a year in fuel. Boilers and steam systems have surface temperatures that can range as high as 350°F to 450°F and must have effective insulation to prevent heat from escaping from boiler and

pipng surfaces. Insulation in not cheap but neither is fuel.

Think I'll get a horse, hay has to be cheaper and the horse always knows the way home.

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