

# *Eddy's Boilerhouse News*

## TIP OF THE MONTH FOR THE MAINTENANCE DEPARTMENT

By Eddy Emerson

### **Fix Now and Save**

Fuel costs have gone out of sight. But, this is not “out of sight out of mind”. This is more like if fuel goes up any more I will “go out of my mind”. Pretty soon we will need to mortgage the house to buy a tank of gas. At least it may get some of us off the highway.

The cost of fuel for our boilers has not climbed as rapidly, but it will follow along with everything else. So it is very important to get these boilers to peak performance. The problem has been that we have been sold a “bill of goods” from time to time that either did not perform and save fuel, or we thought it did not save anything.

At times it is very hard to see the savings because of differing factors. Such as, one boiler owner had turbulators installed in his boiler and after three months had them taken out because his fuel bill had not changed (had even gone up a little). But, after the turbulators were removed his fuel bill went sky high. He thought the contractor who had installed, and then removed, the turbulators had done something to his boiler to cause it to use more fuel. After checking with the production department he found out that they had increased production a few days after the turbulators were installed. To his credit he had the turbulators re-installed.

More often than not we do not have the equipment to measure the true output of the boiler. So we only look at the fuel bill. But, let me assure you that there are many things that can help save fuel. And, the following is a list of common things that do save.

1. Tune-up the burner. This is the number one way to save money and help clean up the air.
2. Fix steam traps and steam leaks.
3. Insulate bare hot water or steam lines. Keep the insulation in good repair.
4. Manage boiler loads. Boilers are not their most efficient at either high or low fire but mid-range. Keep those boilers firing between 40 and 80 percent of their firing rate.
5. Fuel Selection - Price the cost of fuel in your area sometimes coal or oil may be cheaper. But, the cost of the conversion may not be worth it. Also, air quality folks may not allow these fuels.

6. Fuel / Air Ratio Controllers.
7. Pre-heating feed water.
8. Increasing combustion air temperature.
9. Oxygen trim system.
10. Turbulators.

When buying equipment to save fuel or changing fuels be sure to consider the amount of maintenance required to maintain that equipment. For example, when converting for gas to oil we must take into consideration that oil burners require five times the maintenance as gas. Therefore, for every one hour of maintenance required on a gas burner it will require five hours on an oil burner.

And, finally do that annual cleaning, testing and maintenance, “this is a good thing”.

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