



A Few Observations

Energy Conservation

Over the past few months, I've been involved in a number of plant process energy assessments. The results have been a mixed bag — confirmation of prior expectations, some surprises and an exposure to a wide spectrum of attitudes toward energy conservation. At the risk of oversimplifying, here are some observations and comments.

It's a rare plant that operates its equipment at the best possible efficiency. I'm not talking about improving efficiency by adding new energy-conserving devices or making major revisions to existing heating technologies. I'm referring to basic maintenance and housekeeping — tuning

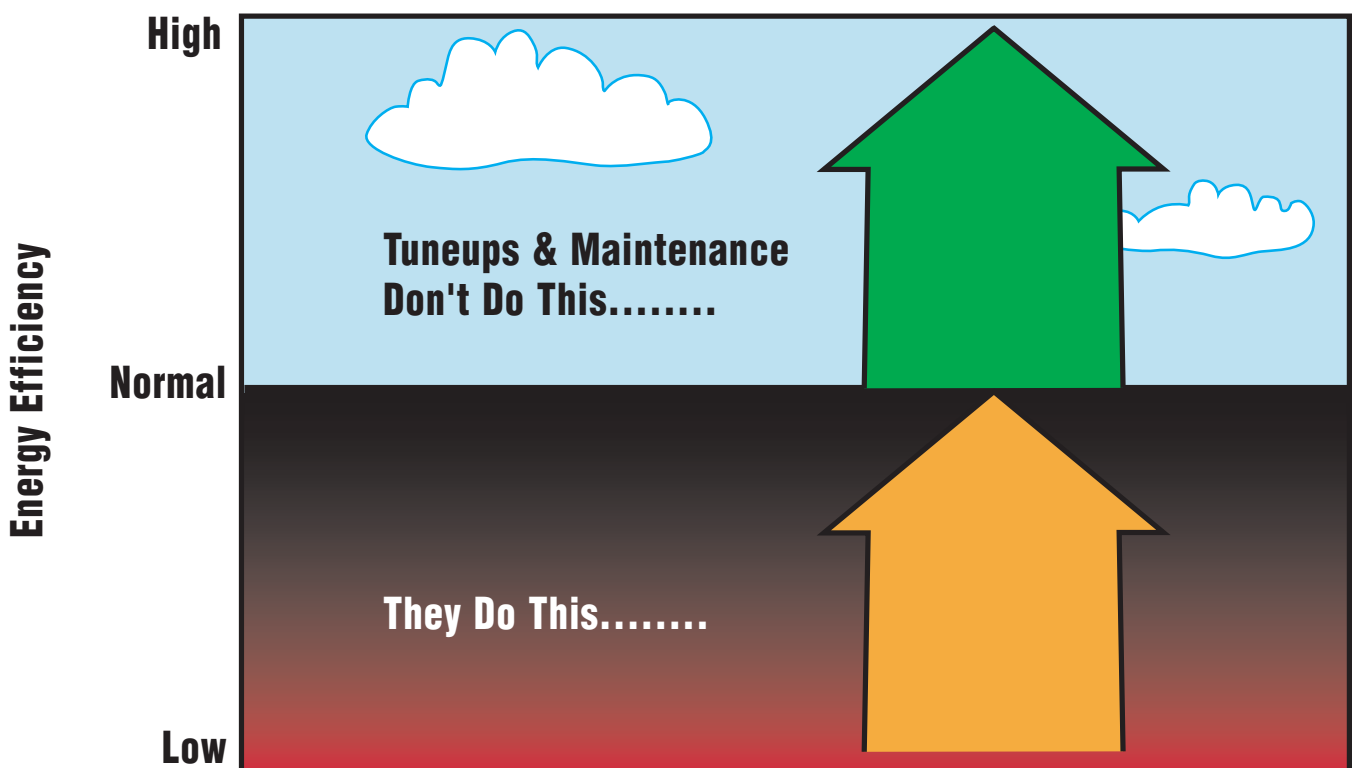
burners, closing off heat and air leaks, maintaining insulation — the routine tasks that ought to be (but apparently aren't) part of day-to-day operations. Judging from the

How much is 5 percent of your gas bill worth? For many of you, it would pay for a full-time technician armed with the analyzers and flow and pressure-measuring

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results I've seen so far, the average plant could knock 5 percent off its gas bill just by implementing (or reinstating) some of these simple practices, and the effort involved wouldn't be all that great.

equipment needed to do regular equipment tuneups. What constitutes regular? These days, you're doing yourself a disservice if you're not checking equipment at least quarterly. If your energy bills are really



high, you ought to have someone paying monthly visits to those ovens and furnaces.

And what if 5 percent won't cover this sort of expense? There are plenty of independent service organizations you can contract to do it for you.

It's time to stop talking about potential energy savings and start talking about eliminating waste. Expressing the situation in the context of energy savings suggests that we're doing all right now and have the opportunity to improve things in the future. So we plan for a brighter tomorrow, prepare our financial justifications for the

analyses, deal with turf issues and gain approval for something that should have been done a long time ago. And all the time, the waste continues.

It's time to get honest about your commitment to energy conservation. Some companies will troop out beautifully crafted public statements about their commitment to energy conservation, lean manufacturing, combating global warming, blah blah blah, but when it comes to implementing those commitments, everything must pass through that old payback/ROI gantlet. In other words, the commitment

sive energy costs, wondering what went wrong with that tuneup of a year ago.

The moral of the tale is this: We've got to abandon a lot of the old habits that brought us to where we are now. We have to treat efficient energy use with the same urgency as meeting delivery schedules, equip ourselves to keep our process ovens and furnaces in top working order and remove impediments to swift implementation of conservation (read: waste reduction) efforts. **PH**

How much is 5 percent of your gas bill worth?

manpower, instrumentation and equipment upgrades and wait hopefully for a blessing of our proposals. Maybe we'll get it, maybe not — no rush.

There's a serious problem with this mindset — we're not doing it correctly right now. We have fallen off past performance, and our processes are consuming more energy than they should. We need to do something just to get them back to where they ought to be.

One of the most inspiring moments I've had recently came at the conclusion of one plant survey. As I was packing up to leave, an ad hoc team of plant engineers was suiting up in their safety gear to retune a furnace we had found to be out of adjustment. They were going to get a waste reduction within an hour or two! Contrast that attitude with the all-too-common approach of weeks of committee meetings to identify improvement targets, set priorities, run cost-benefit

to energy conservation or global resource management is fine when natural gas is \$10 per million BTU, but it has to stand at the end of a long line when the price is only \$2 or \$3. Either you're committed to energy conservation or you're not — price shouldn't enter into it.

Get into energy waste reduction for the long haul. It's one thing to do a tuneup or repair — there will be an immediate efficiency improvement, and your energy costs will drop. But unless you're prepared to continue checking, tuning and repairing on a regular schedule, you'll slide back into that pattern of waste you just dug yourself out of. Much as I hate to admit it, an efficient heating process is an unstable, delicate beast. Equipment gets out of adjustment, and heat, dirt and debris upset control settings and cause components to deteriorate. If "set it and forget it" becomes the Word of the Day, you'll soon find yourself looking at exces-

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