Energy Matters

a newsletter to promote resource conservation

VOL. 1 • No. 1

First Quarter, 2001

Conservation Goals

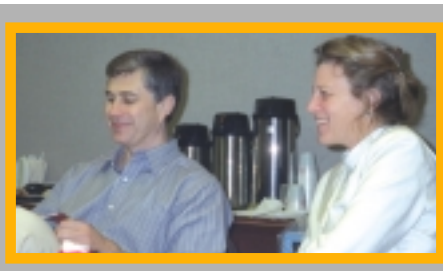
In April 2000, Merck launched its rigorous campaign to reduce its energy consumption at each manufacturing site. Since then, more than 30 sites have agreed to take up the energy reduction challenge, including all of the MMD manufacturing sites worldwide. These site representatives form the Merck Energy Reduction Initiative Team (MERIT), whose goal is to cut energy consumption by 2 percent per year for each of the next five years. MERIT has announced that there are plans to cut energy by 3.4 percent in 2001.

The Team

Headed by Bill Tortoriello, the 10-member core team is in place to guide the site representatives and offer advice on strategic planning, annual reporting, implementing best practices and communications.

The Newsletter

The purpose of this quarterly publication is to augment other communication efforts to reduce energy consumption. Learn more about communication tools, including information about your web site, on the back cover. ■



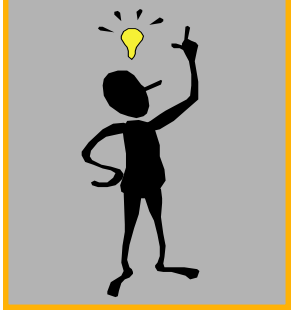
Team Members Vinny Gates and Suzanne Matlock share a light moment at a team meeting.

These posters were designed to encourage employees to conserve energy. Download a copy from our web site.

IN THIS ISSUE

See back cover about downloading this newsletter now!

ASK DR. WATTS



Dear Dr. Watts:

My spouse and I have a lovely relationship, however, we continue to argue about one thing.

She says that fluorescent bulbs are better than incandescent. I disagree. Can you help resolve this conflict?

Jim R., Rahway, NJ

Dear Jim R.

I'm here to tell you that *"your wife is right."* The conventional incandescent bulbs are not only extremely inefficient, they also have a very short life and must be replaced frequently.

Compact fluorescents will fit many of the fixtures previously used by incandescent bulbs. So where you have been using a 60-watt incandescent, you can use a 15-watt compact fluorescent that will last 10 times as long -- and will deliver the same amount of light for about one-quarter of the energy!

I encourage you to make the switch. ■

OUR TEAM LEADER

Bill Tortoriello

Bill Tortoriello, Senior Director, Site Engineering, Rahway, New Jersey, leads the divisional energy reduction initiative charged with cutting energy consumption by 2 percent over each of the next five years at the participating Merck sites.

Bill, who has been with Merck since 1975, believes the goals are realistic and he expects that they will be exceeded.

"We've already made great strides at Rahway and West Point. We're now asking other sites to look at their situation and apply the appropriate energy management strategy," he added.

While we are making great progress toward our goals, there is still much to be done, he adds.

"Just as we kept driving the recycling message home until it became second nature, so too must we continue to communicate the need to reduce our energy consumption."

Bill believes education will go a long way toward getting employees to embrace the entire initiative.

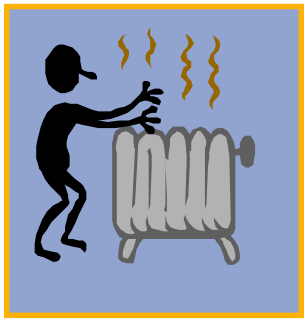
"I am hopeful that this easy-to-read newsletter, combined with e-mail reminders, our Intranet web site and articles in Merck publications, will keep energy conservation in the spotlight. We must all change our ways in order to realize these goals. It's crucial to our long term success."

Members of the core team credit Bill for his no-nonsense approach to meetings, a sense of fairness and his keen sense of humor.

"Is that what they say? I do run a tight meeting, but I think people appreciate the fact that I respect their time. I also couldn't run a three hour meeting without bringing some levity to a very serious subject. I think the title of this newsletter says a lot - *Energy Matters*."

HEATING NEWS...YOU CAN USE

Heating and cooling your home uses more energy and drains more energy dollars than any other system in your home. Typically, 44% of your utility bill goes for heating and cooling. In this issue, we'll focus on tips to help you lower your heating costs and your pollution output.



Heating Tips

- Most people are comfortable with the thermostat set between 68-70 degrees Farenheit. This is traditionally called the comfort zone. When turning your heat down at night, never lower temperatures more than 8 to 10 degrees below the comfort zone setting. Recovery to comfortable temperatures will cost you more than you save. An automatic setback thermostat will pay for itself within a year.
- Clean warm air registers, baseboard heaters, and radiators as needed; make sure they are not blocked by furniture, carpeting, or drapes.
- If you have a forced hot air system (oil or gas), install a humidifier. Proper humidity makes lower thermostat temperatures feel more comfortable. Proper humidity will also prevent static shocks.
- Keep your shades on south-facing windows open during the day to allow sunlight into your home and closed at night to keep the warm air in your home.

CORE TEAM MEMBERS

Bill Tortoriello, Site Engineering, RY

Paul Berndt, Utilities, RY

Karen Casey, Global Procurement, WS

Vinny Gates, Utilities, RY

Tom LaBuz, Central Safety & Environment, WS

Harry Marshall, Management Engineering, WP

Suzanne Matlock, Maintenance & Repair, WP

Annette Nichols, Central Engineering, FTA

Keith Williams, Technical Operations, EK

Hank Kacala, Site Facilities Engineering, WP

UPDATE: LAB FUME HOODS

The biggest energy users identified at the Rahway and West Point sites, according to Paul Berndt, Utility Manager at Rahway, are lab fume hoods.

"In Rahway, we've made some great strides in getting employees to close the hoods when not in use," he noted. "There has been tremendous cooperation once employees were made aware of the problem."

Still, Paul looks forward to a day when 'smart hoods' (see below) are in use at all Merck facilities.

From left, Doug Christie, refrigeration mechanic, Rahway: Keith Williams, process manager, Stonewall; and Vincent Gates, department head, Rahway Power Plant, track down one culprit of energy loss at Merck -- open laboratory fume hoods.

SMART HOODS

'Smart Hoods' have been installed in Buildings 14 and 78 at West Point. A computerized control system links all lab lighting and hood doors to a central light switch in the main lab.

If the lights are turned off, the computer assumes people are not using the lab, so it dramatically decreases the amount of air that is driven through the hood by electric motors and fans.

So even if lab users don't shut the hood, by turning off the lights they are greatly cutting down on the amount of air escaping through the hoods. They are also saving the cost of lighting an empty lab!

The difference between closing the doors on a hood and leaving them open is 1,000 cubic feet per minute (cfm) of air. That is enough air to cool or heat a 2,000 square foot house. By closing hood doors when not in use lab users save MRL over $4,000 per year.

By closing their hoods and turning their lights off when not in use, lab users can save MRL over $6,000 per year. Just do it! ■

Success Stories

Banyu, Japan

Nobuyuki Yamamoto has realized significant savings by identifying operation opportunties to reduce energy consumption. The facility operates multiple chillers to provide comfort and process cooling.

The traditional method was to operate all of the chillers and all of the pumps. By analyzing this operation, they were able to take one chiller off-line as well as the pumps associated with it. In addition to reducing utility costs, they now have a chiller and pumps as backups, should one fail. This is just one example of how a change in operations can conserve resources without spending money. **Way to go!**

Danville, PA

Vince Sedlmeyer reports that the Cherokee site has reduced energy costs by using the water they pump from the river to cool their processes, saving the energy it takes to operate their chillers. Because the river is fed from the mountains, the water is cold for much of the year. This water is readily available and can be used once and then returned to the river at temperatures that are within their permitted limits. **Good job!**

Korachi, Pakistan

Ashiq Ramma reports that they are saving water by piping their reverse osmosis (RO) reject to the toilets in the facility. This water would normally go directly to the sewer. Ramma also motivates employees to shut off the air conditioning and lights in their offices during lunch and tea time. **Creative Solutions!**

BEST PRACTICES

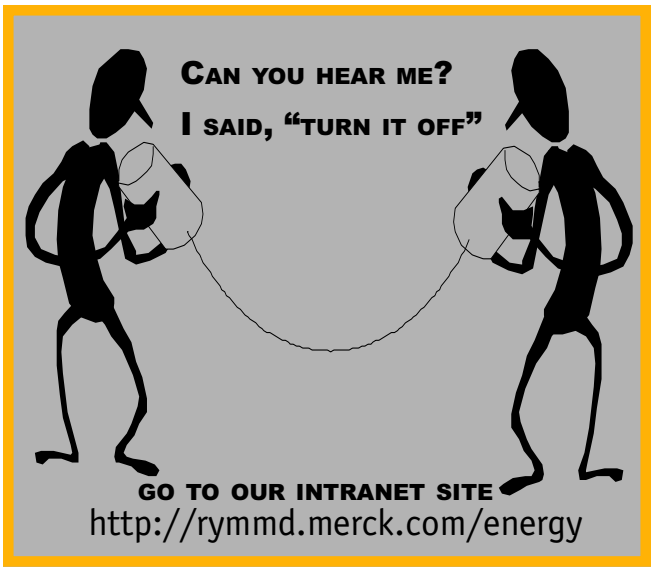
Best Practices are key to reducing energy consumption both in identifying opportunities within existing facilities and in designing new facilities with energy conservation built into the design. We have identified companies, such as Johnson & Johnson, who have progressed to the point where their entire energy management program consists of implementing Best Practices as a part of doing business.

Best Practices will be a regular feature in this publication.

Communication Tools Multiply

This publication, to be distributed quarterly, is one of a series of communication tools designed to help you to conserve resources at your home and at your site.

This newsletter is also available for downloading as a PDF file from our Intranet web site. Your site management encourages you to visit: *http://rymmd.merck.com/energy* for a wealth of information on sound conservation practices, frequently asked questions and links to many energy related web sites.



Throughout this campaign we will be using voice mail, e-mail, posters and signs to encourage conservation. If you have any thoughts, please contact your site representative.

We are in the process of developing a series of articles for site communication over the coming months. If you have any ideas, contact one of the individuals listed below.

Site	Site Rep	Core Team Rep
Albany (Georgia)	Mike Velez	Annette Nichols
Alcala (Spain)	Luis Cifuentes	Keith Williams
Arecibo (Puerto Rico)	Felix Matos	Hank Kacala
Ballydine (Ireland)	Joe Ryan	Tom LaBuz
Barcelonta (Puerto Rico)	Hector Ramos	Hank Kacala
Caguas, (Puerto Rico)	Felix Amador	Hank Kacala
Cherokee (Danville, PA)	Vince Sedlmeyer	Keith Williams
China	Roy Ding	Karen Casey
Costa Rica	Luis Flores	Annette Nichols
Cramlington (England)	Mark Boldy	Harry Marshall
Haarlem (CO4, Netherlands)	Jan Kamphius	Annette Nichols
Korea	B.K. Choi	Vinny Gates
La Vallee (France)	Louis Rivoirard	Karen Casey
Menuma (Japan)	Nobuyuki Yamamoto	Paul Berndt
Merck-Frosst (Canada)	Jean Barrette	Harry Marshall
Merck-Medco	Denise Tulp	Tom LaBuz
Mexico	Bernardo de la Vega	Harry Marshall
Mirabel (Clementel, France)	Serge Roubine	Karen Casey
Neopharmed (Milan, Italy)	Nino Columbo	Harry Marshall
NSW (Australia)	Steve Twist	Paul Berndt
Okazaki (Japan)	Takashi Shibata	Paul Berndt
Pakistan	Hussain Ramma	Vinny Gates
Pavia (Italy)	Leonardo Vaccariello	Annette Nichols
Ponders End (England)	Lee Elkington	Tom LaBuz
Quito (Ecuador)	Fernando Calero	Keith Williams
Rahway (NJ)	Vincent Gates	Vinny Gates
Singapore	Oliver Arango	Paul Berndt
South Africa	Andy Harris	Vinny Gates
Stonewall (Elkton, VA)	Keith Williams	Keith Williams
USSH	Charles Hoff	Vinny Gates
West Point (PA)	Hank Kacala	Hank Kacala
Whitehouse Station (NJ)	Gerald Pentlicky/Craig Warner	Tom LaBuz
Wilson (NC)	Tony Little	Karen Casey

JUST DO IT

If natural light provides enough working light, don't turn the overheads on!

■

Ask yourself, am I always turning off lights when not in use?

■

Have I replaced incandescent bulbs at home with compact fluorescent bulbs where possible?

■

Do I turn off lights in the copy rooms?

■

Do I turn off my PC and monitor when not in use?

■

Remind your coworkers to conserve energy too!

■

Is the VCR turned off in the conference room?