

## MnTAP interns: providing solutions for you

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Over the last 25 years, MnTAP technical specialists have developed a number of strategies to help companies realize cost savings while maximizing resource efficiency, increasing energy efficiency, and preventing pollution. These include site visits, internal teams, and intern projects. Each year, these successful strategies are employed within companies to help them take advantage of pollution prevention and energy efficiency opportunities. As 2009 draws to a close, MnTAP is seeking companies who are interested in participating in the 2010 intern program as well as developing internal teams. This issue of the *Source* provides details and examples of past successes.



Summer 2009 Interns: Pat Liesch, Chris Iacono, Scott Trantina, Alicia Reigel, Zach Zurbey, and Seth Thompson

### Intern Projects Result in Success

In 2009, six Minnesota businesses hosted interns who researched and recommended energy efficiency and pollution prevention solutions that could cumulatively result in savings of over \$600,000 once implemented. The MnTAP interns spent 12 weeks in their facilities learning where waste was occurring or where energy or water was being used. Each intern then researched potential solutions for their facilities, evaluated the feasibility of each solution, and ultimately recommended solutions to the company. Since the projects ended in August, companies have already realized over \$20,000 in savings.

Each summer, MnTAP provides interns to Minnesota businesses who have helped a wide variety of manufacturers and other businesses reduce solid and hazardous waste, energy use, water use, and wastewater loading. In the past four years, participating businesses have realized savings of over \$1.2 million from implemented solutions. Additionally, the companies have cumulatively improved their environmental impact by reducing over 60,000 pounds of waste, 23 million gallons of water, 13.4 million kWh, and 167,000 therms.

Minnesota businesses interested in reducing waste and improving efficiency are encouraged to apply for the annual

MnTAP summer intern program. Through the program, businesses get a highly-qualified student intern with a background in engineering or science. Each student's work is guided by a technical expert at MnTAP who provides additional resources to help their student determine solutions that will help improve the use of raw materials, reduce waste, increase efficiency, and save money. Interns are paid by MnTAP and companies are asked to contribute \$2,500.

Project proposals are being accepted by MnTAP and are due by February 1, 2010. Proposed projects are evaluated for source reduction potential, specific goals achievable in three months, repetition of previous projects, application of results to other Minnesota businesses, and company interest and commitment. Projects should focus on identifying specific options for reducing wastes and increasing efficiency.

### How to Apply

- Identify problems or projects at your company that fit our program criteria.
- Review the proposal form located on the MnTAP Web Site to understand the information needed for project evaluation.
- Apply early; funding is limited. Project proposals received early have a better chance of acceptance.
- Contact Krysta Larson, Intern Coordinator, at 612.624.1300 or 800.247.0015 to discuss potential projects. ■

### Route:

- health and safety
- maintenance
- owner/president
- process engineer
- purchasing

# Team at PBG reduces facility's energy use

Pepsi, Aquafina, and Lipton Tea are just a few of the numerous products that Pepsi Bottling Group's (PBG) Burnsville facility bottles as an independent company under the stock exchange PBG. On a five day/week production schedule, PBG is actively working to reduce the facility's energy use in order to save money and conserve resources.

Over the past 12 years, PBG has reduced their energy use significantly. 73% of the reductions have occurred in just the last two years. Based on these energy reduction efforts, the facility set an extremely low energy use goal for 2009.

To help meet this goal, PBG formed an energy efficiency team in the fall of 2008 with technical guidance and team facilitation from MnTAP. Plant Manager, JD Greenwalt, served as team leader while other team members from various areas in the facility joined in the ongoing problem solving process. Greenwalt commented that through teamwork, PBG was able to gain valuable input from MnTAP as well as team members, to recognize energy saving projects that had previously gone unnoticed.

## Energy/Waste Reductions

Over the past nine months, PBG and MnTAP have jointly identified and quantified many opportunities for energy use reduction. For example, the team determined that the shell washer was not properly drying crates after being washed; this was caused by clogged heat exchangers. Additionally, the drying solution dispenser was disconnected and hadn't been supplying solution, which is an important measure

in the drying process. By cleaning the heat exchangers and reconnecting the drying dispenser, PBG was able to save \$1,000 each year.

The team also learned that the facility's boilers were using more water and chemicals than in previous years. This was caused by a leak in the bottle warmer. After the leak was repaired, the boiler load was reduced, saving \$1,200 annually.

Additionally, PBG was able to reduce the amount of energy used to chill carbonated products by shutting off the chiller during non-carbonated product runs. This saves the facility \$4,200/year in energy costs. Once bottles and cans have gone through the chiller, compressed air knives blow off excess moisture. PBG has replaced two out of the three compressed air knives with electric blowers and anticipates replacing the third soon. Estimated annual savings for the entire project will total \$2,400 in compressed air costs.

Other energy savings opportunities were found in the bottle and can rinsing areas. In the bottle rinsing area, 17 three horsepower motors were continuously blowing empty bottles to the rinser, even when there were no bottles to rinse. Shutting off the motors when they're not needed in this area saves \$5,200 each year in energy costs. The can rinser was also running continuously despite the fact that cans are only run 75% of the time. This was fixed by replacing a worn out solenoid and saves the company 1,800 gallons of water per day.

Overall, PBG has made changes that have resulted in energy and water savings and cost savings of approximately \$14,000.

## Next Steps

Once the team finished the initial projects, MnTAP engineers worked with team members to develop a "fish-bone diagram," which is essentially a cause-and-effect diagram. The team used this tool to develop a diagram of one of the bottling lines. They started by identifying main savings opportunities of the bottling line and then developed branches off each opportunity with potential causes or solutions. This has led to a greater understanding of potential problems and contributing factors, making the team less likely to miss important ideas and solutions. ■



Pepsi Bottling Group Team (Left to right): Heidi Onnen, Jim Roqrrique, Ron Dornfeld, Kevin Scherer, John Greenwalt, Bryce White, and Dorothy DeCoux

# Fairview Hospital goes green system-wide

The University of Minnesota Medical Center-Fairview has a mission to improve the health of the communities it serves; but now, with the addition of a green team, Fairview has another mission: to improve the environment in which it resides.

Featured previously in the *Source*, Fairview Hospital was recognized for Dr. Rafael Andrade's mission to reduce the waste resulting from surgeries without compromising the safety and success of the operation. The success of this project, in addition to other endeavors, has led Fairview to advance their efforts by forming a green team.

The Fairview Green Committee formed in early 2009 when Fairview began collaborating with MnTAP. The team has representation from each major Fairview facility and is comprised of vice presidents, managers, directors, nurses, environmental services, and a variety of other personnel. This Green Committee serves as a system-wide council and leadership group that defines goals and promotes practices consistent with their environmental policy for waste reduction and energy savings.

The Fairview Green Committee is divided into site-based green teams, such as facilities management, environmental services, nutrition services, and infection prevention to implement the goals outlined by the system-wide committee.

Fairview is striving to minimize waste by using the Lean process, reprocessing single use devices (SUD), reducing paper, managing waste, and implementing environmentally preferable purchasing. Working through the Lean process has reduced the on-hand inventory levels and minimized product expiration. Additionally, a pilot project encouraging paper reduction has

featured duplex printing, printing only when needed, using handout print features, and reducing printing color copies. This project has significantly reduced Fairview's paper waste. Fairview has also eliminated use of paper cups and plastic cutlery in some facilities; many employees are now using their own cups for coffee or tea.

Another successful greening effort of the Fairview Green Committee has been holding monthly team meetings as conference calls as opposed to in person. This has saved an estimated \$5,000 for every meeting in travel time and costs, and eliminated approximately 500 lbs of greenhouse gas emissions per meeting associated with commuting.

The committee's current projects include the moving from disposable surgical gowns to reusable ones, reducing paper waste by changing to double-sided room records, implementing a broader recycling process, and eliminating unnecessary packaging waste during operative procedures.

Fairview continues to set ambitious goals for future savings in the areas of energy, waste and raw material, toxic/hazardous substances, facilities design, and responsible purchasing and water use. Some goals include reducing gas emissions by at least 15% by the year 2015, 30% by the year 2025, and 80% by the year 2050 and increasing their environmentally preferable products and packaging. The team is also working to build new facilities with Leadership in Energy and Environmental Design (LEED) certification and upgrade existing buildings to LEED standards. ■



## Start your own green team

Is it time to reduce the environmental footprint of your workplace? Take a few minutes to evaluate needless waste at your office and you may find opportunities to reduce waste and increase energy efficiency. A green team may be able to help your organization reduce waste and costs. To begin, follow these tips:

### Organize a Team

When starting a team, get management approval. Support from management adds legitimacy to the team as some measures may require investment of time and money. Next, encourage employees from all areas and levels of the organization to join. Having a diverse team can lead to new and creative ideas for all aspects of the organization, which helps ensure greater success and support.

### Establish Goals

When choosing the first project for your team, look for easy tasks to accomplish. A recycling program or a campaign to reduce energy is a good place to start. These projects give quick results and begin building momentum. Your team should also set with clear goals and timelines for projects. This will allow you to measure success and celebrate when goals have been met.

### Launch Your Project

Have each department choose a representative. This person will explain goals to their staff and train the department on new guidelines or procedures. As the project goes on, make sure to publish reports to share information with employees. Once your green team has reached its first goal, have another project ready, include new members, and take on bigger challenges.

# Local cleaner awarded for cleaning skies

Initially known for their ability to clean clothing, East Metro Clean'n'Press is now being recognized for something else: cleaning the environment.

East Metro Clean'n'Press, a large dry cleaning and shirt laundry facility located in West St. Paul, Minnesota, has recently been recognized by the National Pollution Prevention Roundtable (NPPR) for its commitment to promoting a sustainable future. The cleaner was awarded the Most Valuable Pollution Prevention (MVP2) Project award.

The MVP2 award recognizes outstanding and innovative pollution prevention projects and programs. Awards are judged on innovation, measurable results, transferability, commitment, and optimization of available project resources.

Focused on reducing their carbon footprint and overall waste, East Metro Clean'n'Press lowered their impact on the environment with the assistance of MnTAP, Riddler Plumbing, and Focus Electric. East Metro Clean'n'Press modified and upgraded equipment, began recycling programs, and implemented process heat exchange to realize a total annual savings of \$18,814.

These pollution prevention practices are not only helpful to East Metro Clean'n'Press, but are a paradigm for all dry cleaning, shirt laundering, and industrial laundering facilities. Some technologies are common in the industry, such as insulating steam lines, where other items are quite innovative, such as water-cooled air dryers. Regardless, a simple dedication to recognizing heat and power inefficiencies goes a long way in reducing waste throughout dry cleaning facilities.

Clean'n'Press' success with pollution prevention and energy saving projects has sparked changes internally for the organization. Ownership and management have decided to take on a new energy saving project semi-annually and plan to continue until all options have been exhausted.

For more information on how your dry cleaning operation can implement pollution prevention and energy reduction solutions, contact Cindy McComas at 612.624.4678. ■

## Measurable Energy Savings Summary

Project	Therms/Yr
Insulation of Process Equipment	165.0
Insulation of Steam Pipe	12,219.0
Heat Exchange of Return Water	27.6
Exchange of Heat to Tenant Area	4,888.0
Exchange of Heat to Lobby Area	888.0
Upgrading to High Efficiency Boilers	2,196.0
Insulating Boilers	104.0
Annual Trap Inspections	500.0
<b>Annual Savings</b>	<b>20987.6</b>
Project	kWh/Yr
Upgrade of Process Lighting	8,677.5
Water Cooled Air Dryer	2,740.0
Neon Sign Lighting to LED	780.0
<b>Annual Savings</b>	<b>12,197.5</b>

## New to MnTAP: A.J. van den Berghe



**AJ van den Berghe**  
612.624.4653  
800.247.0015  
vand0576@umn.edu

A.J. Van den Berghe joined the MnTAP team as an Associate Engineer in October. He will focus on researching and providing technical assistance for industrial energy use and conservation.

Graduating in May 2009 from the University of Minnesota, A.J. comes to MnTAP with a B.S. in Environmental Sciences, Policy and Management specializing in Corporate Environmental Management after previously studying Chemical Engineering.

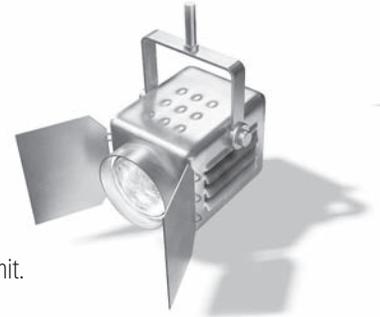
During his senior year at the Uof M, A.J. worked at MnTAP as a student researcher. At that time, he worked on the Department of Commerce industrial energy conservation market analysis reports for a variety of investor-owned utilities. He will continue to work on the project until its completion in 2010.

A.J. has two years combined experience in electronics manufacturing, environmental regulations and reporting, energy efficiency research, and assisting businesses find financial incentives to save energy through their utility's Conservation Improvement Program.

At MnTAP, A.J. will explore energy conservation opportunities in various industries and will work with businesses to implement energy efficiency and pollution prevention solutions.

A.J. hopes his contributions allow industries to discover and implement solutions that reduce their environmental impact, lower their energy use, and realize cost savings to stay competitive in an increasingly resource-limited world. ■

# Spotlight on technology: ultraviolet finishes



Ultraviolet (UV) wood finishes are beginning to come into the spotlight. However, that has not always been the case. Initially these coatings required specialized application and curing equipment, making them difficult to work with. The materials were also thick and difficult to apply, leaving the finished product with an undesired “plastic-like” appearance.

Advances in chemical formulations and equipment have allowed cabinet shops and furniture manufacturers to now use and benefit from UV curing systems. UV curing is a photochemical reaction, known as photo polymerization, which occurs when specialized coatings are exposed to UV light. The UV light cures the coating instead of relying on heat and time to evaporate carriers, like in solvent-based coatings.

Flat stock, such as cabinet doors, is an ideal application for UV coatings because all sides of flat panels are easily reached by UV light sources. As the technology advances, UV coatings are seeing greater use for more intricate or detailed furniture.

UV coatings can be applied by airless or conventional spray guns, with about 50 to 75% transfer efficiency, and are better used for three-dimensional pieces. Roller and curtain coater systems are best suited for flat-panel production and are nearing 100 % transfer efficiency.

The equipment for a new UV coating line costs from \$50,000 at the very low end to \$1 million, depending on the sophistication of the system.

## PSI Sees Need for Change

One company gaining the benefits of UV finishing is Prefinishing Specialist, Inc. (PSI), a division of Western Building Products, Inc. This wooden door and mill work finishing company in Avon, Minnesota, provides wood finishing to commercial, architectural, and residential markets. As PSI's business expanded, their use of wood finishing products grew,

leading PSI to approach the limit on their air emissions permit.

Changes were then implemented in the clear coat selection, which in turn, reduced the Volatile Organic Compound (VOC) content from four to three pounds per gallon. However, the solvent-based wood finishes were still releasing large amounts of VOCs, making a community group concerned about potential adverse health affects from the solvent odor.

To address this concern, PSI evaluated alternative coatings through months of product testing. PSI began using finishes free of Hazardous Air Pollutants (HAPs) and moved from primarily solvent-based stains to water-based stains containing no hydrocarbon constituents.

To further advance their work and eliminate any community concern, PSI modified their production process. Already using 100% solid UV curable coatings on their molding and millwork products for many years, PSI decided to convert to a water-based UV finishing system on their door line as well. When the Minnesota Pollution Control Agency (MPCA) granted PSI a permit that required emission reductions and allowed equipment modifications, the testing of new UV curable coatings on their door line was facilitated. PSI was then able to invest in the UV equipment which efficiently sprays UV curable finishes and therefore significantly reducing the facility's HAP and VOC emissions.

Overall PSI was able to realize benefits including throughput that maintained or increased production capabilities, improved quality, reduced floor space and odor, and eliminated community complaints. ■

### Quality advantages of UV coatings:

- Increased hardness and durability
- Increased solvent resistance

### Production advantages of UV coatings:

- Quick curing (curing can happen in less than five seconds)
- Shorter finishing lines, creating more floor space
- Increased line speeds
- Products can be immediately handled and packaged
- High solids, resulting in little or no volatile organic compounds (VOCs)

## Help us reduce our impact

If half of the subscribers to the *Source* newsletter opted to receive their pollution prevention and energy efficiency news online rather than in printed form, we could reduce our annual environmental impact by:

- 1,500 lbs. CO<sub>2</sub>
- 4,300 gallons of water
- 500 lbs. solid waste

Subscribe today to receive future issues of the *Source* via e-mail. Simply send your e-mail address to [mntap@umn.edu](mailto:mntap@umn.edu). Past issues of the *Source* are available online at [www.mntap.umn.edu](http://www.mntap.umn.edu). ■

# National programs assist in conserving resources

This past summer MnTAP teamed with the U.S. Environmental Protection Agency (EPA) to endorse their WaterSense and Waste Wise programs. As an endorser, we are committed to recruiting new WaterSense and Waste Wise members, educating companies on the benefits of water and waste reduction, and providing technical assistance to help with reduction efforts.

## Have Some Water Sense



Water may seem abundant in supply; however, in actuality, only 1% is available for humans to utilize. Managing water is becoming a growing concern and companies across the

country are addressing it by choosing to partner with programs, such as WaterSense, to learn how to be sensible with water use.

WaterSense, a program sponsored by the U.S. EPA, is working to protect the future of the nation's water supply. They encourage water-efficient behaviors through the promotion of water efficiency and the enhancement of the market for water-efficient products, programs, and practices.

Identified by its symbol, WaterSense is a national brand that helps consumers recognize products for their bathroom, lawn, and more which meet the EPA's standards for performance and efficiency for water use.

By partnering with WaterSense, companies can access a variety of tools and resources to help build water efficiency. To find out if your organization is eligible to join WaterSense, check out the partnership category that best describes your potential involvement at <[www.epa.gov/WaterSense/partners](http://www.epa.gov/WaterSense/partners)>.

## Address Your Waste Wisely



**Preserving Resources,  
Preventing Waste**

Whether it's the overflowing garbage cans in households or the hazardous waste produced by industrial and manufacturing processes, waste is everywhere.

However, with opportunities for reduction, reuse, and

recycling through programs such as Waste Wise, producers of waste can spark cost savings and protect the environment.

Waste Wise is a free, voluntary partnership program sponsored by the U.S. EPA that helps organizations reduce municipal solid and industrial waste. The program helps any organization, large or small, design waste reduction programs tailored to meet their specific needs.

As a Waste Wise partner or endorser, you have access to free technical assistance and tools to plan and execute waste reduction activities. Through Waste Wise's network of experts and peers, organizations can learn cost-cutting waste reduction strategies and gain valuable insight.

To become a partner, complete a hard copy registration form or register online at <[www.epa.gov/wastewise](http://www.epa.gov/wastewise)>. Waste Wise can also be contacted at (800) EPA WISE (372.9473). ■

## GHG reporting and reductions focus of new rule and executive order

The U.S. Environmental Protection Agency (EPA) passed a rule requiring sources that release 25,000 metric tons or more of greenhouse gases (GHG) to report annually to EPA. It is expected that very few if any small businesses in Minnesota will be affected by this rule.

Wondering what 25,000 metric tons of GHG means? This amount is approximately equivalent to the annual emissions of 2,300 homes or 4,600 passenger vehicles.

The EPA says, "The purpose of this rule is to collect accurate and timely data on GHG emissions that can be used to inform policy decisions." More

information can be found at <[www.epa.gov/climatechange/emissions/resources-tools.html](http://www.epa.gov/climatechange/emissions/resources-tools.html)>.

### Executive Order

President Obama recently issued an executive order that establishes an integrated strategy towards sustainability in the Federal Government and makes greenhouse gas emissions reductions a priority for Federal agencies. For more information, view the order online at <<http://edocket.access.gpo.gov/2009/pdf/E9-24518.pdf>>. ■



# Materials Exchange

The Minnesota Materials Exchange program lists one company's unwanted material and makes it available for use by another company.

For more information, call MnTAP at 612.624.1300 or 800.247.0015.

## What is Materials Exchange?

The Materials Exchange is a free service that links organizations that have reusable goods they no longer need to those who can use them. This business reuse network helps prevent usable materials from becoming waste and saves users money.

MnTAP continues to support the eight statewide local exchanges through the Minnesota Materials Exchange Alliance by maintaining the Web site and database, verifying listings, sending tracking reports to the Alliance sites regarding who looked at their listings, and compiling quarterly exchange reports. MnTAP and the local exchanges maximize personal contacts to facilitate exchanges.

## Benefits

Use the Materials Exchange program to:

- Receive low or no-cost materials
- Reduce disposal and purchase costs
- Free-up storage space
- Find markets for your surplus materials

## Finding Materials You Need

### Web site

Visit [www.mnexchange.org](http://www.mnexchange.org)

Create user profile

Search wanted/available listings

Contact lister to arrange pick-up

Report success on Web site

### E-mail

Receive the newest wanted and available listings twice a month by e-mail. There are currently over **4,000 e-mail recipients**. Visit the Web site to sign up.

## Local Alliance Site

Minnesota is served by eight programs that make up the Minnesota Materials Exchange Alliance. Alliance sites provide local service to an area. Contact the site that covers your area to find out about their program and what their current listings are. Alliance sites include:

- **Chisago County** – 651.213.8925  
Covers: Chisago County
- **MnTAP** – 612.624.5119  
Covers: Twin Cities metro area and areas not covered by an alliance site
- **Northcentral** – 218.547.7428  
Covers: Cass, Crow Wing, and Hubbard Counties
- **Northeast, St. Louis County** – 218.749.0648  
Covers: Itasca, Koochiching, and St. Louis Counties
- **Westcentral Minnesota** – 218.299.7329  
Covers: Becker, Clay, and Wilkin Counties
- **Otter Tail County** – 218.998.4898  
Covers: Otter Tail County
- **Southeast Minnesota** – 507.328.7022  
Covers: Blue Earth, Dodge, Freeborn, Mower, Olmsted, Rice, Steele, and Waseca Counties
- **Southwest Minnesota** – 507.532.8210  
Covers: Cottonwood, Jackson, Lac Qui Parle, Lincoln, Lyon, Murray, Nobles, Pipestone, Redwood, Renville, Rock, and Yellow Medicine Counties

## List items

### Web site

Visit <[www.mnexchange.org](http://www.mnexchange.org)>

Choose “create a listing” from navigation bar

Log in or create user profile

Enter item information

Report success on Web site

## Got an Exchange?

Please tell us about your success. We track successes to promote the Minnesota Materials Exchange program to others and to highlight the value of the program. Visit the Web site or call to report your success. ■

## Minnesota Technical Assistance Program

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# MINNESOTA TECHNICAL ASSISTANCE PROGRAM

UNIVERSITY OF MINNESOTA

helping businesses implement industry-tailored solutions that maximize resource efficiency, prevent pollution and reduce costs and energy use

The Minnesota Technical Assistance Program (MnTAP) helps businesses and industries develop and implement industry-tailored solutions that maximize resource efficiency, prevent pollution and reduce costs and energy use to improve public health and the environment. As an outreach program at the University of Minnesota, MnTAP provides free technical assistance tailored to individual businesses.

By reducing waste and increasing efficiency, companies save on disposal and raw-material costs and make working conditions healthier and safer for employees.

MnTAP is funded primarily by the Minnesota Pollution Control Agency's Prevention and Assistance Division and is located at the University of Minnesota in the School of Public Health, Division of Environmental Health Sciences.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status or sexual orientation.

This newsletter is printed with low-VOC agri-based inks on 100% post-consumer recycled, Forest Stewardship Council-certified, process chlorine-free (PCF) paper that is produced with green energy.

## Calendar

December 2, 2009. **Hazardous Waste Training Seminar.** Ramsey County Public Works Department, 1425 Paul Kirkwold Drive, Arden Hills, MN. Session 1: Hazardous Waste Management Basics 8:30 a.m. – 12:00 noon. Session 2: Commonly Generated Wastes 1:00 – 4:30 p.m. Informal discussion will walk through the basics: why it's hazardous, how to store it, and where to get rid of it. Sponsored by Ramsey County Department of Public Health, Environmental Health Section. Free. Call 651.266.1191 to register. Specify morning, afternoon or both.

December 16, 2009. **The Next Generation of Lean.** Mankato, MN. 8:00 – 11:30 a.m. Sponsored by Enterprise Minnesota. \$79. For more information and registration, contact Enterprise Minnesota at 612.373.2900 or 800.325.3073.

December 17, 2009. **Green Jobs in Minnesota: What does it mean for my community?** Baxter/Brainerd, MN. 3:00 – 5:00 p.m. This is one of a series of presentations that offer people in the environmental field and the community timely information on environmental and sustainability issues, as well as a chance to network with others. This season's theme: Greening the Economy. Sponsored by the Brainerd Area Environmental Learning Network (BAELN). Free. Contact Don Hickman at 320.631.2043 or [dhickman@ifound.org](mailto:dhickman@ifound.org) for more information.

February 1, 2010. **MnTAP Intern Program Application Deadline.** Each MnTAP intern spends the summer at one Minnesota business researching pollution prevention solutions to improve efficiency, save money, reduce waste or decrease regulatory compliance burden. Company project proposals will be accepted until the program is full. Call MnTAP any time throughout the year to discuss potential projects, 612.624.1300 or 800.247.0015.

For more information, visit MnTAP's online calendar at [mntap.umn.edu/resources/cal.htm](http://mntap.umn.edu/resources/cal.htm).

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