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The Plant Exchange is produced by members of the Plant Operations Division at the University of Michigan. Its purpose is to inform Plant Operations staff and the university community of activities, accomplishments, and information about our organization and the work we perform.

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Archives of previous Plant Exchange are located at: www.plantops.umich.edu/PlantExchange/

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This first decade of the 21st century has certainly presented most Americans with a variety of challenges. As a nation, we are working our way through security issues, wars, a revolution in technology, an economic crisis, and increased expectations with shrinking resources. These concerns have created an increasing need for resiliency, imagination, commitment, and communication.

Clear communication must be one of our priorities. Excellent communication between the many departments and shops within the Plant Operations division and with our external stakeholders is critical to successfully meeting our mission. It is through clear and effective communication that we can remove at least one level of anxiety from the mix; that being the uncertainty brought on by not knowing the important issues in our work environment.

Communication is a two-way street. It is just as, if not more important, to listen to the issues and concerns that are raised by staff at all levels as it is to pass information down from the top. We are an organization of people with many opinions and varying degrees of motivation, commitment, job satisfaction, personal circumstances, and the list goes on. Simply put, communication is the common denominator that allows us to effectively support the University of Michigan and be successful.

Perhaps the most effective way to improve communications is to hold face-to-face meetings with all of our team members. I know many of our work groups hold operating meetings on a regular basis and I expect all groups to follow this practice. I speak for all of the Associate Directors when I state that we, as upper management, are ready to hear everyone’s comments and concerns and we are willing to consider and act upon these ideas. We encourage all employees to feel free to come forward with issues and suggestions without fear of any negative repercussions. Let’s work together to make sure everyone is informed of the issues and actions facing our department and that all employees feel they have had a chance to be heard.

We have a number of ways for communicating amongst ourselves; newsletters, websites, memos, presentations, and meetings. Within our restructuring efforts, we have taken the opportunity to redesign the Plant Exchange. A new look is not only appropriate at this time, it is also indicative of our support for the restructuring effort. We’ve been fortunate to engage the talents of a graphic designer, allowing us to free up staff time to focus more on our primary mission to the University. I’d like to thank Anna Balhoff for her contribution to the Plant Exchange over the past year.
The University of Michigan uses a 3-site Simulcast, 11-channel, Smartnet II Communication System with over 1400 radio users and 180 MOSCAD units throughout the campus. Interference, attributed to increasing cell phone usage, has been a serious problem for 800 MHz Public Safety and Critical Infrastructure communications.

The FCC spent 2 1/2 years studying the problem and determined the system must be reconfigured to reduce Public Safety interference. This will require rebanding, or moving the frequencies either up or down the 800MHz spectrum to mitigate interference with the Public Safety frequencies.

EF Johnson and Motorola will be the two vendors assisting the Radio Shop with the process and providing the absolute minimum disruption to our operations. All reasonable costs will be covered by Sprint Nextel.

In FY 2009, project manager Christine Nedrow Oversaw the planning and scheduling of the project, and the inventorying of all University radios. The Radio Shop will collect and reprogram all radios between December 2009 and April 2010, and will conclude the project after extensive testing throughout 2010.

FACILITIES MAINTENANCE

The FCC 800MHz Rebanding Project by Tom Sullivan

Radios Rebanding Workers Rob Nedrow & Ken Brown

HEALTH & WELLNESS

Fifth Annual Facilities & Operations Softball Tournament Results by Greg Lambert

Our 5th Annual 2009 Facilities and Operations Softball Tournament was another remarkable success! Every year this tournament seems to be bigger, better, and more competitive! The August 13th double elimination tournament began at 3:45 p.m. and ended at 9:35 p.m. at Mitchell Field.

Congratulations to “The CRUSHERS 1” led by captain Mark Canales. They are awarded the Championship Trophy, personalized t-shirts, chair massages and a luncheon reception. Team members include: Mark Canales – Captain, Gail Estes, Vic Olvera, Matt Callahan, Chad Godfrey, Jason Kayfesh, Aaron Montero, Tom Rumple, Clint Fink, Doug Vowles, Ben Law, and Clay Canales.

The CRUSHERS 1 dethroned the Hospital Hitters in the championship game of the tournament. The game winning score was 10 – 4. A special thank you goes out to the eight teams that entered this tournament and to all of the F&O staff, family and friends that came out to observe this exciting event. Congratulations to the second place team, Hospital Hitters, led by captain Mark Neumann, and the third place team, The A/C Chillers led by Randy Fox.
CONSTRUCTION SERVICES

**CS Integrates Energy/Cost Saving Measures** by Alan Swan

Curt Smitka, Office of the Vice President for Research, submitted a request last spring for Construction Services to remodel the fourth floor of the Victor Vaughan building. This remodel would include a new kitchen, painting of the entire floor as well as carpet cleaning. Curt was very happy with the budget estimate for the project, however, he did express some concerns regarding the performance of the existing lighting.

Initially, we added a few fixtures to the project to supply additional lighting while keeping costs down. During the renovation, the site electrician, John Nichols, noticed that the existing lights were equipped with older T12 magnetic ballasts. John’s discovery was passed along to the Plant Engineering division to crunch the numbers and see if this warranted an ECM project. We then sent in a request for funding, which included time constraints since we already committed to a move-in date with the customer. Engineering agreed that the project warranted funding and supplied the work order along with specifications to complete the lighting scope in less than a week to honor the time constraints.

In the end, the collaboration between Construction Services and Plant Engineering enabled Plant to supply the customer with a better energy saving product without passing on additional costs to the customer. Construction Services is committed to the university’s energy saving initiatives, and is actively looking for these opportunities on all projects.
The transition to FMAX has provided some increased functionality regarding printing reports for the Preventive Maintenance (PM) building equipment. The two most useful reports are the Equipment Profile Report (230) and the Equipment Work Order History Report (160). Both can be accessed through the BIRT Report Viewer that runs when you click the printer icon in the Asset Management Module of FMAX. These reports are found in FMAX, not the Crystal Reports Browser.

The Equipment Profile Report is extremely useful when you want to know what type information exists in the database for a specific piece of equipment. When this report is executed, it provides a nicely formatted print out of information, such as; the manufacturer, the model, the responsible shop, the attributes of the equipment, the location, and belt and filter information. Unfortunately, at this time it does not include any of the additional mechanic notes that have been entered for the equipment.

The Equipment Work Order History Report is an excellent report if you want to know what work orders have been assigned to a specific piece of equipment. When this report is executed, it provides a summary of all the work requests, both PM and correctives, that have been assigned to the piece of equipment, including the current status of the work requests. This is a great tool to follow-up on any corrective work that may have been assigned via the PM procedure, or any additional corrective work not associated with PM. For example, if corrective work is necessary on an air handler, which was initiated by a customer call and not the normal PM schedule, the yellow equipment identification tag of the air handler will record the corrective work that was required, in addition to the regularly scheduled PM records. This procedure will facilitate a comprehensive history of the PM and corrective work for each piece of equipment.
Energy consumption was reduced by a net 6% in all five Planet Blue pilot buildings. Annualized cost avoidance was $340K, based on the last 12 months. The initiative began in September 2007 with five pilot buildings: Institute for Social Research (ISR)-Thompson, Fleming, Chemistry, Rackham, and Space Research. During the pilot project, Planet Blue teams focused on engaging building occupants by educating them on best practices for conservation and ways to reduce their daily consumption. Active participation between Planet Blue Teams and building occupants was the key to success.

The teams targeted two primary utilities in the buildings, steam and electricity. Buildings were audited for their energy use. Energy conservation measures (ECMs) were developed and implemented. Tools were provided to building occupants to help them reduce consumption. Buildings were “tuned-up” so they performed as intended and to match occupant needs.

The ISR-Thompson building hosted an anniversary celebration for all faculty and staff in the building. The results from the pilot study were highlighted as part of the success of the Planet Blue program. ISR-Thompson saw a reduction of 26% in energy consumption and a cost avoidance of $191K annually. Rich Robben, Executive Director of Plant Operations, presented a Planet Blue plaque to James Jackson, Director of ISR. He commended ISR’s involvement and called them an “outstanding partner” in the process of developing and participating in Planet Blue. Dr. Jackson acknowledged the ISR/Planet Blue team for their dedication and involvement with this program.

Space Research and Rackham realized savings of 17% and 32% respectively. These changes are the result of key ECMs and Planet Blue Team activities in both buildings. In Rackham, Planet Blue worked closely with building management, Plant Operations’ shops and other users of the building to implement a fan schedule and install occupancy sensors. Building-wide recommissioning work resulted in savings for Space Research. Plant Blue teams are now working with the occupants in the Space Research building on a pilot study to encourage usage of task lamps and motion-sensing power strips instead of overhead lights. An individual in a fixed space can save 90% of lighting energy usage with this simple act.

On a campus of over 400 buildings of varying types and ages, Planet Blue teams encounter many challenges in implementing energy conservation projects. In two of the pilot buildings, Fleming Administration and Chemistry, Planet Blue faced problems with pre-existing building conditions. Energy consumption rose during this period. Projects are now underway to address the problems and we expect lower energy usage in the future.

Planet Blue continues to show exceptional growth and momentum. The overall success of the pilot program is a result of cross-functional team involvement from all parts of the campus community including Plant Operations staff, facility managers from the buildings, building leadership, faculty and students. Please visit the Planet Blue website, under the “resources” tab for case studies that further illustrate the active engagement of Planet Blue teams. Planet Blue will be participating in Energy Fest ’09 on September 15 (Diag) and 17 (North Campus). Come visit our booths to learn more about Planet Blue.
In the very near future university personnel will be able to field locate U-M’s water, sewer, and storm infrastructure features with a simple hand held GPS device. Utilities Record Integration hired a consulting firm to field survey the university’s entire water, sewer, and storm infrastructure and collect all system attributes. This research initiative is expected to be completed this fall.

Critical to the success of the project has been the finding of lost components such as building shutoff valves and the location of storm water and sewer manholes that have been paved over or buried under mounds of dirt or mulch through the years. The Plant Plumbing Shop has played a critical role in this endeavor by using their wealth of experience and knowledge of the system to help locate these components.

The data in the GIS database, along with information from FMAX, will allow UPE and the Plumbing Shop to better assess the condition of the W&S systems. This will facilitate a more comprehensive PM program and the development of a long range capital plan for replacement and upgrades to the aging components within these systems.
We never know the worth of water until the well is dry.
~Thomas Fuller, Gnomologia, 1732

Water is the life blood of our planet and without it the Central Power Plant (CPP) could not operate. The water that the City of Ann Arbor supplies to U-M comes from two sources, wells and the Huron River. The water is first treated to make it suitable for human consumption, but further treatment is required in order for the CPP to use city water in our steam generation process.

Three years ago the CPP undertook a project called CPP Water Master Plan. This project looked at all aspects of our current and future water requirements, along with how we treat the water used for steam generation. The project concluded that an upgrade of our water treatment equipment was required to meet current and future needs with respect to quality and quantity. This, then, was the beginning of a two phase capital project to address the recommendations of the CPP Water Master Plan.

The first phase addressed our need to improve the quality of the water (condensate) returning to the CPP from campus by installing Condensate Polishers. The Condensate Polishers will remove contaminants such as hardness and dissolved metals that have the potential to inhibit heat transfer in our boilers. This process will also reduce the amount of fuel we need to generate steam.

The second phase called for replacing our current water treatment equipment (demineralizers) with Reverse Osmosis. The implementation of Reverse Osmosis will allow the CPP to produce high quality makeup water while meeting current and future quantity requirements. This new equipment will also significantly reduce the use of chemicals for both the production and treatment of water.

When the CPP Water Master Plan has been fully implemented, the Central Power Plant will realize significant savings in three areas; chemical usage, waste water generation, and energy consumption. Therefore, the CPP will become leaner and greener while keeping operational costs as low as possible.

H2O Helps Make Blue Go by Merrill Willett

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Plant Building Services has completed their first pilot of a new cleaning operations system called OS1. The custodians in the pilot building, Dana Hall, have completed their 90 day basic training program and the ManageMen OS1 consulting team have performed the first audit. The audit is designed to measure compliance with the program. While the results are not yet in, it appears we passed with flying colors and quality assessments of the building show a marked increase in the cleanliness of the facility.

Based on these results, Plant Building Services has decided to go forward with the program and has initiated the roll out of the second phase group of buildings: Dennison Hall, CC Little, and the Pharmacy Building. The twelve custodians who volunteered for this second phase have completed their two day classroom training called “boot camp” and the first week of the 90 day basic training.

This first week, labeled “hell week”, is the toughest week of the program as the staff learn new techniques, procedures, and a new facility. However, as our pilot team will attest, by the end of the 90 day basic training they will have a complete set of new skills and an appreciation for a program that actually makes their job easier and safer while greatly improving service. Plant Building and Grounds Services is very excited about the results of our pilot and the possibilities for this new operating system.

The three pilot custodial team members, Greg Fuqua, Tina Enos and Isaias Albarran attended the OS1 Users Symposium in Savannah where they won “Outstanding Cleaning Worker” awards and the University of Michigan received the OS1 “Rookie Program of the Year “ award. Stay tuned as PBGS continues to roll out this program to the 200 plus facilities we clean.

Service Committee Members Recognized

On August 11th, the team members who rotated off of the C.A.R.E. team and the Plant Operations Diversity Community were recognized by Rich Robben and the Lead Team for their outstanding service. Those recognized were: Anna Balhoff (PODC), John Gleason (C.A.R.E.), Pam Smith (C.A.R.E.), Alan Stevens (C.A.R.E.), and Anna Tobias (C.A.R.E.). Thank you for your contribution!
On July 23, 2009 Plant Operations had the privilege of honoring 6 retirees at the Kipke Conference Center. The Celebration honored: Joe Mahler from Hospital Facilities Maintenance with 39 years of service; Alan Stevens from Work Management with 30 years of service; Sandra Kitts from Building and Grounds Services with 27 years of service; Guy Hurlbutt from Zone Maintenance, Fire Protection Shop with 25 years of service; Sharon Bailey from Building and Grounds Services with 18 years of service; and Nancy Fortune from Plant Administration, Network Services with 17 years of service.

Rich Robben, Executive Director, opened with welcoming words for visitors, guests, and employees as well as congratulations for the retirees. Following the welcome, each retiree was honored with a few words by members of their respective departments. The celebration included a good representation of family and friends to add their congratulations. Throughout the celebration the guests enjoyed refreshments while taking the opportunity to chat with and congratulate their retiring co-workers.

The next Retirement Celebration will be early February, 2010. Watch for more details as the time grows near. If you are planning to retire, we would like to encourage you to participate in the next Plant Operations Retirement Celebration. As Rich Robben stated in his speech at a recent Celebration, please allow Plant Operations the opportunity to honor you. Please contact the committee member in your department:

**Plant Building & Grounds Services** - Jan Allen
**Construction Services** - Jeanette Craft
**Facilities Maintenance** - Gina Flowers
**Plant Administration** - Betty Alberts
**Utilities & Plant Engineering** - Lisa Sheldon
**Work Management** - Von Hardesty
PLANT OPERATIONS
May 21, 2009 through July 31, 2009

Retirements

Building and Grounds Services
Sandra Kitts and Carl Struble

Construction Services
Edward Laski

Facilities Maintenance
Guy Hurlbutt and Joe Mahler

Plant Administration
Nancy Fortune, Ed Linderman, and Diane McDonald

Utilities & Plant Engineering
Mike Bennetti

Work Management
Alan Stevens

New Hires

Building and Grounds Services
Jason Coleman, Paul Cox, Laurent Houensou, and Linda Schort

Facilities Maintenance
Jim Brinker, James Delisle, Robert Kuhn, Michael Riley, and Steven Stanley

Plant Administration
Jessie Fleck and Levi Zander

Utilities & Plant Engineering
Irena Graham

Work Management
Abram Smith

In Memorium

Construction Services
Keith Dietrich

THE Plant Exchange Sept.–Oct. 09

University of Michigan Plant Operations • 326 E. Hoover, Ann Arbor, MI 48109

Executive Director of Plant Operations
Richard W. Robben

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“Employees at Work” photos taken by David Judge