Shop M3200 Pump Crew Keep Pumping Out Service
Craig Butcher
Facilities Maintenance

Without your heart to move blood around, you would be out of luck. Without pumps to move fluid around thousands and thousands of pipes, the University would be out of luck. In addition, without the six pump specialists in Shop M3200 (Myron Williams, Ronel Robinson, Tom Hoffman, Steve Bentley, Gary Boehmer, and Tim Staggs) none of the pumps would run for long. The heating, cooling, lab vacuum, and compressed air would all fail. Fountains would run dry, toilets would not flush, and sewers would back up. In short, Blue would not go!

The M3200 pump crew, led by Foreman Ken Easley, brings a diverse background and wide experience to their critical work. Myron, Tim, and Ronel became journeymen through University apprenticeships. Gary worked in the Navy and in private industry. Tom came from the outside through the Hospital. Steve worked for a major pump supplier. Collectively, the team puts over 120 years of experience to work for the University each day.

Pump work varies from simple inspection and lubrication to complete teardown and rebuilding, as well as, installation and replacement. This variety, the range, and increasing amount of equipment, keeps the job interesting. One crewmember recalled fifteen years ago, that there were eight people dedicated to pumps, and now there are six, even though their responsibilities have grown. The heating and cooling season has also changed. At one time, there was an off-season but now there is heating and cooling year round.

The crew feels their backgrounds have prepared them well. Those who came up through the University ranks speak highly of the program. Tim recalls Cass Wichter, his journeyman, “one of the best teachers I ever had—very patient with lots of knowledge to share.”

While all agree that the work is interesting and satisfying, all agree as well, that the job is a big challenge. One goal: reduce service costs and improve performance by getting the benefit of the crew’s experience into the design and engineering process. Ken cites moving away from water type and towards oil pumped vacuum systems as an example of success in this area. Another challenge is performing all the needed preventative maintenance. The crew has started a PM improvement process to better match the skill level of the work with the skills of the worker. This process maximizes everyone’s contribution, and improves efficiency. The next time you enjoy the spray of water at the Ingalls Mall fountain on a hot summer day, or walk into a warm classroom or lab in January, remember that the pump guys in M3200 made it happen!

A horizontal split-case centrifugal pump, partially torn down, showing bearing housings, shaft, seals, impeller, coupling, and motor. Without a pump like this, a 750-ton chiller is just another piece of idle machinery.

From left to right, front row: Tom Hoffman, Myron Williams, and Gary Boehmer.
Left to right, Back row: Ronel Robinson, Tim Staggs, Steve Bentley.
This is a good time of the year to pause and reflect on life and work. Stress is a part of life and I was recently made aware of the following story and some suggestions for dealing with the complexities of life. I thought you might find this story interesting.

A lecturer, when explaining stress management to an audience, raised a glass of water and asked, “How heavy is this glass of water?”

Answers called out ranged from 8oz. to 20oz. The lecturer replied, “The absolute weight doesn’t matter. It depends on how long you try to hold it. If I hold it for a minute, that’s not a problem. If I hold it for an hour, I’ll have an ache in my right arm. If I hold it for a day, you’ll have to call an ambulance. In each case it’s the same weight, but the longer I hold it, the heavier it becomes.”

He continued, “And that’s the way it is with stress management. If we carry our burdens all the time, sooner or later, as the burden becomes increasingly heavy, we won’t be able to carry on. As with the glass of water, you have to put it down for a while and rest before holding it again. When we’re refreshed, we can carry on with the burden. So, before you return home tonight, put the burden of work/life down. Don’t carry it home. You can pick it up tomorrow. Whatever burden you’re carrying now, let them down for a moment if you can. Relax; pick them up later after you have rested. Life is short. Enjoy!”

So with the above words of wisdom spoken, let me wish all of the Plant Operations team a healthy and prosperous holiday season and a Happy New Year. See you all next year!

**PLANT ACADEMY**

**Computer Lab Learning**

Anna Tobias  
*Plant Academy*

It has been a great fall season for the Plant Academy Computer Lab. **Self-paced Computer Classes** have expanded to include **Excel, PowerPoint,** and **Outlook** and we continue to offer **Word, Windows,** and **Internet tutorials.** A new **Typing Tutorial** is ordered and on its way as well. Students are applying their new skills to their jobs and they marvel at how their work life is now easier and more organized. The lab was available for employees to use during the Health Benefits Open Enrollment period; in addition, there was a sponsored class on navigating the new C.A.R.E. Awards website. Self-paced classes are open for drop-in participation every Wednesday and Thursday from 12:30-5:30 p.m. through May.

**Mini-Courses** were introduced for Plant supervisors and support staff this fall. Thank you to all the facilitators who taught the following mini-courses: Rich Steiner gave individual attention to people that came to his “**Financial Spreadsheet and Budget**” class. It doesn’t get much better than that! Mary Diskin taught “**Outlook Tips and Tricks,**” Steve Brabbs showed “**How to Really Search the Internet**” and Shelly Carpenter taught “**Time Saving Excel Shortcuts.**” Plant Payroll and Accounts Payable Office (PAPA) presented “**FMS Time/Leave Reporting,**” and Network Services demonstrated “**Navigating the Computing Maze.**”

Plant Academy has received positive feedback from the people who attended the sessions; it was an exceptional learning experience, the user-friendly “short to the point” style was especially appreciated. Watch for email and flyers announcing new mini courses, or call Toby at 615-2210 for more information or to suggest ideas for future courses.
The Art of Multi-Tasking

Pam Smith
Work Control

Don’t have heat? Don’t feel the heat blowing out of your register? Wondering what color paint matches the walls in your apartment? That’s right. It is another “Who ya gonna call?” question for the staff working at the Plant Operations Call Center (POCC).

Meet Jacki Layher, she has been working in the call center for 10 years. She has heard just about everything. Bill Hall has been here a year, and Jacqueline Frost has been here since the beginning of August, they are hearing it too. The POCC staff hears all types of questions and requests from people who contact the call center. “One call does it all” is the Work Control motto.

Jacki’s favorite part of her job is meeting all the new people that call or come into the call center. She has handled many calls from people and she sometimes makes quick judgments on situations that some people would not know how to handle.

Bill gets satisfaction from helping people with their emergencies. Bill remembers one caller, a woman painting the walls in her home, although this was not typically a call POCC would handle, Bill tried to help her out the best he could.

Jacqueline likes knowing that she has helped a caller and has put their mind at ease. In fact, most of the POCC staff feels the same way. They like knowing they assisted someone with their questions, concerns, or emergencies.

The 24/7 nature of the call center poses differing issues from one shift to another. Hence, a representative from one shift may not encounter the same issues as a representative from the next shift. For example, after hours shifts handle calls from Housing (i.e. dorms, North Campus family apartments), and Parking, (i.e. lots, structures) as well as, all the calls from regular Plant customers. In addition to the Plant personnel, they are in constant contact with the Housing Maintenance and Parking Maintenance staffs via two-way radio and telephone for immediate responses to most emergencies. POCC employees have to think on their feet and learn how to assess the urgency of each call based on what they hear from the customers. The pleasant, professional demeanor of the POCC representatives helps to keep the customer calm, if necessary, while they dispatch personnel to check on the situation. Did we mention the calls handled by the POCC staff are just part of the duties they perform each shift? POCC representatives perform various administrative duties that contribute to smooth workflow and outstanding customer service.

Next time you talk to a POCC staff member, don’t forget to thank them for all they do. They deserve a big thank you!

NETWORK SERVICES

Leveraging University of Michigan’s Computer Resources

Curt Gomulinski
Network Services

Many people are unaware of the numerous computers tools and discounts available to U of M employees. For example, what kind of virus scanner are you using on your home computer? How much are you paying per year for a software subscription? As a University employee, you can download and use McAfee VirusScan free of charge for non-commercial use on your personal computer. You will need your UM uniqname/password to download VirusScan. More details are available on the Virus Busters web site (http://virusbusters.itcs.umich.edu/downloads/index.html). If you do not care for VirusScan and are looking for a cheap alternative, consider AVG Anti-Virus Free Edition (http://free.grisoft.com/doc/2/us/frt/0).

Are you thinking about upgrading to Windows Vista or Office 2007 at home? Are you put off by the multi-hundred dollar price tag? University employees are able to purchase these and certain other pieces of Microsoft software at a HUGE discount. There are several conditions including that it is to be used by staff members for University business, you have to uninstall it when you leave the University, and you can only install it twice (one install, one backup). More details are available on the campus agreement web site (http://www.itd.umich.edu/microsoft/MicroPersonal.html). In addition to Microsoft software, there are a number of other software titles available from the computer showcase at reduced prices including products like Adobe PhotoShop and AutoCAD. Details on these and other titles can be found on the Computer Showcase web site (http://showcase.itcs.umich.edu/category.php?cat=71).

Are you looking to buy a new computer? Make sure to check out the prices available to University employees. The computer showcase offers a variety of different computer products including links to customize your own Dell, Lenovo, or Apple products. Savings can range from 10% (Apple computers) to 12.5% (Dell computers). They have a number of items in stock in their location in the basement of the Michigan Union. Stop by to see what they have to offer. They can also provide support service if you have problems with your home computers and need some assistance in repairing the problem. Details about their offerings can be found on their web site (http://showcase.itcs.umich.edu/).
**Regents Meeting Room Upgrade - Fleming Building**  
*Bill Welch  
Construction Services*

Recently, the Regents’ meeting room located in the Fleming Building underwent an upgrade to improve the lighting and to remove the original sprayed on acoustical ceiling treatment of the dome.

This project was made more complex because the large meeting room table had to remain in place. A scaffold system was built over the table to allow for the removal of the ceiling and to install a more sound absorbing spray on system. Additionally, the scaffold was utilized to install new lighting in the dome’s soffit. Also in the conference room, a new ceiling and lights were installed, giving the Regents’ area an overall better working environment.

**“Just Build It” Expo**  
*Aaron Montero  
Construction Services*

Construction Services primary function is to perform construction and renovation projects on campus. Construction Services departed from this primary mission when several department members staffed a booth at the “Just Build It” Career Expo held on November 6, 2007.

Construction Services was one of over forty presenters at the ninth annual expo hosted by the Washtenaw Contractor Association. The expo was an opportunity for nearly fifteen-hundred middle and high school students from Washtenaw and neighboring counties to learn about the wide variety of construction related careers. Construction Services’ booth offered a multimedia presentation that was eye-catching, informative and hands-on. Employees from the department’s skilled trades collaborated to construct a metal stud booth displaying common construction techniques. The booth also allowed students, under the supervision of a Construction Services Electrician, to wire up a simple lighting circuit. Construction Services is continually striving to not only build for the future, but also, educate future construction leaders.

**BLOOD DONORS HAVE DONE IT FOR THE SECOND YEAR!**  
*Betty Alberts,  
Plant Operations Red Cross Representative*

Plant Operations Blood Donors were recognized again for their continued commitment to the American Red Cross Blood Services Program. The “Platinum Award of Excellence” was given to Plant Operations for the second year. The Platinum Award is the highest award given to originations for yearly blood donation results.

Winning this award is a true testament to your commitment to the cause of helping others.

Congratulations to all our blood donors that did something amazing – they gave blood and saved a life!
Construction Services took on a great deal of responsibility when they accepted the PET/CT Replacement project. The challenge of planning and coordinating construction activities to occur in accordance with on-going radiology procedures was quite the task. Taking into consideration the high volume of patient treatments performed, the expedient turnover of this area back to the customer was vital. The Radiology Department: PET/CT Scanner performs an average of ten procedures per day, costing approximately $4,000 per treatment, this equates to approximately $40,000 per day lost if this area is not in use.

The gist of this project is to update the existing equipment. The scope of work includes selective demolition, ceiling, flooring, finishes, cabinetry, countertops, fire safety upgrades, and mechanical and electrical modifications. The renovations will be constructed in a manner that will reduce any impact to ongoing procedures in this area. The following table contains a description of the areas affected.

<table>
<thead>
<tr>
<th>Program Area</th>
<th>Planned SF</th>
<th>Current Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET/CT Treatment Room B1 H418</td>
<td>426</td>
<td>PET/CT Treatment Room B1 H418</td>
</tr>
<tr>
<td>Equipment Room B1 H419</td>
<td>74</td>
<td>Equipment Room B1 H419</td>
</tr>
<tr>
<td>Control Room B1 H420</td>
<td>220</td>
<td>Control Room B1 H420</td>
</tr>
<tr>
<td>Total Program Area</td>
<td>720</td>
<td></td>
</tr>
</tbody>
</table>

• The estimated total project duration including design and construction is twenty-six (26) weeks.
• Construction Services has taken this project duration and significantly reduced the length to twenty-two (22) weeks.

Initially, the coordination and dialog with the personnel in this area proved very important regarding the construction activities that may interrupt normal medical procedures. Bear in mind, the construction in this procedural area was scheduled to occur with little or no impact to on-going medical procedures. Overall, adjustments were made by maintaining clear communication with the customer about what would take place on the construction side, along with consistent updates of construction activities affecting personnel performing daily procedures.

The obstacles listed below would have pushed the schedule off track if not for the foresight and prompt action of the Construction Services personnel to eliminate issues before they became scheduling concerns:
• Repositioning of sprinkler heads: preventing conflict in ceiling layout.
• Specified transformer placement: weight of transformer (350lbs) exceeded the allowable weight capacity.
• Specified install area was in ceiling above control room.
• Buss Duct System modification: An existing 250 volt disconnect installed on a 600-volt Buss System needed efficiency modifications. This Buss System services the ER/CT in addition to CT3. We requested an emergency shutdown of this Buss to correct existing conditions to facilitate our modifications. Hospital personnel immediately addressed our issue, thus, no delays in work.
• Modifications to this Buss in relation to our construction would be performed on the weekend as scheduled due to our coordination and prompt attention to this potential setback.
• Ongoing shutdowns are planned with the hospital personnel regarding sprinklers, plumbing, mechanical, and electrical with no anticipated problems.

Do you have questions, comments, or suggestions for the Plant Exchange newsletter?

Send them to Mary Diskin via:
E-mail:  mldiskin@umich.edu
US Mail:  326 E. Hoover
          Physical Properties Building, Room 140
          Ann Arbor, MI 48109-1002
A Recycling Update and Tips for Environmentally Friendly Holidays!

Maria Sviridova
Waste Management, Recycling

The Recycling Team celebrated another successful America Recycles Day on November 15 on the Central Campus Diag! A similar event was held in the Duderstadt Center on November 14. The event promoted reuse through a free U of M travel mug give-away! Adding to the excitement of the event was the unveiling of our new mascot Rufus the Recycler! The competition winner was Chad Godfrey, the Grounds Facilities Manager. Congratulations to Chad for coming up with this great name!

As of now, the Recycling Team is getting ready for the RecycleMania competition, which begins January 27 and continues through April 5, 2008! So get ready to do some major reducing and recycling of waste! The U of M team will need everyone’s help in order to come out on top! Kickoff events will be held at several campus locations so be on the lookout for updates on times and places, as well as, more details on the event. You can also visit www.recycle.umich.edu for more RecycleMania.

Now for some holiday recycling tips! The holiday season is once again upon us. It’s time for good food, family, and fun! But while those three F’s are important, don’t forget about those three R’s: reduce, reuse, and recycle!

Here are a few tips on following through with the three R’s this season:

- Recycle gift-wrap and save any gift bags you receive: use them for presents later this season or next holiday season!
- Avoid buying disposable gifts that you know will soon be thrown out.
- If hosting a party, avoid using paper or plastic dishware and silverware. Use your own dishes instead.
- If attending a party with one-time use dishes, stick to one plate instead of throwing it out and using a new one.
- Only put as much food on your plate as you can eat and save all leftovers. This way you will avoid generating extra waste and the guilty feeling of throwing away perfectly good food!

Grounds Grins

The Changing Grounds and Waste Management Family
Shari Elkort

Taking photos was a treat and it was hard not to smile due to the one-man comedy act provided by Randy, our new temporary office assistant. Although, some of the GWM personnel were able to keep a straight face during picture taking, others (the majority), could not resist smiling to Randy’s brand of humor.

Come on down and see Who’s Who here at GWM Draper. Say hello! We all Make Blue Go and we do it with a smile!

UTILITIES & PLANT ENGINEERING

Central Power Plant Operations Savings Add Up

William Weakley
UPE-Central Power Plant

In the May 2006 Plant Exchange, we reported that the Central Power Plant had modified its long-standing routine of maximizing electrical generation to one of full generation only during on-peak hours, and generating as little as practical during off-peak hours. Because of the difference in cost between natural gas that the CPP uses and coal that generates most of the local utility power, the energy cost for purchasing off-peak power is lower than that required to generate our own. This is in spite of the fact that the CPP is about twice as efficient as a utility, electricity-only plant.

This mode of operation started in November of 2005. The operations staff continues to refine this process and monitor progress. Through September of this year, the savings is estimated at $1,525,000. In FY07, the savings alone was $871,000. Work is ongoing to automate the process to some extent, which will relieve the operators of constantly adjusting output and potentially increasing savings.
Reduction of Autoclave Trap Cooling Water

Stephen Kunselman
Utilities & Plant Engineering

Autoclave sterilizers are machines that use high-pressure steam to sterilize and decontaminate medical and science laboratory equipment. When the machine is operating or idling, steam surrounding the sterilization chamber condenses and discharges into the public sanitary sewer. However, the condensate discharge temperature is required by the Plumbing Code to be less than 140 degrees before it enters the public sanitary sewer system. Tempering is achieved by mixing a constant flow of city water with the condensate discharge regardless of the condensate discharge temperature or volume, often resulting in city water needlessly being used.

An autoclave manufacturer developed a water conservation kit to reduce the water consumption of its autoclaves. A pilot project was proposed by Scott Wells, Energy Management Engineer, and approved for funding in July, 2006 to evaluate and verify the manufacturer’s claim that the water conservation kit would reduce water consumption by its autoclaves by 62%. Six autoclaves in the E. H. Kraus Natural Sciences building were selected for the pilot project. An ultrasonic flow meter measured the water flow rate before and after the installation of the autoclave water conservation kits. Subsequently, the manufacturer’s claim of a 62% reduction in water consumption was verified. The results from the pilot project confirmed that for each autoclave water conservation kit installed on a typical autoclave that is operating or idling yearly 24 hours per day, that the estimated annual water and sewer cost savings is $2,059 per year (at 2007 water and sewer rates).

PILOT PROJECT SUMMARY:
Estimated Cost/Kit Installed = $3,945
Estimated Water and Sewer Cost Savings/Kit = $2,059/yr
Estimated Payback Period = 1.9 years

This pilot project resulted in an additional 27-autoclave water conservation kits approved for installation in six buildings for fiscal year 2007.

New Tools now available on “Facility Condition Assessment” (FCA) Website

Michael Bowen
Utilities and Plant Engineering

Plant Operations implemented a Facility Condition Assessment (FCA) program in 1998 to identify our deferred maintenance backlog and develop tools for prioritizing needs. The FCA website contains detailed information on our program and outlines several best practices. Recently, the website was updated to include several useful tools; a link to the FCA database, a downloadable user guide with instructions on how to access and use the FCA database, as well as, downloadable infrastructure project lists for FY07, FY08, and FY09.

You can find the website by simply doing a Google search on “Facility Condition Assessment.” Our site, named Facility Condition Assessment (FCA), Operations & Maintenance, will appear at, or near, the top of the search results. The web link is http://www.plantops.umich.edu/utilities/operations-engineering/fca.html. Access to the user guide and the infrastructure project lists requires a UM username and a Kerberos password.

Our in-house FCA teams administer our deferred maintenance program, a component of the overall FCA program. These teams, set up by category (Exterior, Electrical, Elevator, HVAC, Life Safety, Plumbing, Site, and Worker Safety) continually identify our highest priority infrastructure needs on our General Fund campus. The teams develop project scopes and budgets to address these needs. These projects are compiled into prioritized lists from which projects are selected for funding. We have made these lists available via our FCA website. The FY07 and FY08 lists show what has been funded via IMF/PPI account the past two years, and the FY09 list shows what we are considering for the upcoming fiscal year. Your participation in identifying and prioritizing needs is strongly encouraged. Please contact Mike Bowen at mbowen@umich.edu if you would like additional information.
The Plant Exchange

Executive Director of Plant Operations
Richard W. Robben

Writing/Photo Contributions
Betty Alberts
John Bellows, Jr.
Craig Butcher
Shari Elkort
Michael Bowen
Curt Gomulinski
Stephen Kunselman
Aaron Montero
Pam Smith
Maria Sviridova
Anna Tobias
William Weakley
Bill Welch

The PLANT Exchange
University of Michigan Plant Operations  ■  326 E. Hoover, Ann Arbor, Michigan 48109