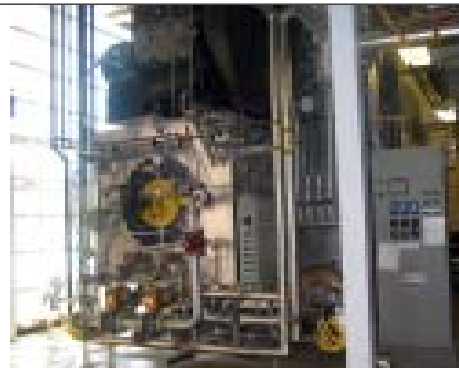




PHYSICAL PLANT DEPARTMENT



During a short tour of the Ford Utilities Center, utilities operations manager John Fitzgerald explained how the Utilities Division will have the ability to meet the heating and cooling needs of the UNM campus. Much of the Center's renovations are still under construction as well as the new offices which will house the Division's staff. It's quite a site.

Ford Utilities Center's new equipment more efficient and reliable

■Producing utilities with old, inefficient equipment or having to buy the utilities from PNM was quite costly.

*by Jeff Zumwalt
Associate Director, Utilities Division*

Substantial renovations to the Ford Utilities Center, along with the installation of new chillers, new boilers, and a new gas turbine and heat recovery boiler, address reliability and cost of utilities. Before the renovations, the Physical Plant Department was having a difficult time providing all of the utilities to the campus. The addition of the new equipment has made the supply of utilities more efficient and much more reliable.

The new Taurus 70 gas turbine, manufactured by Solar Turbines, generates about six megawatts of

electricity. That's a lot of energy. To put that into perspective, that's just over 8,000 horsepower. The six megawatts from this turbine will provide roughly half of the total electricity for UNM during the winter months, and a little less than a third during the summer months.

The gas turbine makes electricity like nearly every other electricity generator in the world--it spins a shaft that is connected to a generator rotor. In simpler terms, it's like an electric motor in reverse. Instead of applying electricity to spin the shaft, the turbine spins the shaft and makes electricity. Hot gasses that pass over the turbine blades spin the turbine, in this case at 15,200 rpm, these hot gasses exit the turbine at around 1000 °F, and then

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Threats to computers multiply

*by Rick Olcott
Information Systems Manager*

"Dang, my computer is all messed up again!" How often do you say this lately? The fact is that threats to your computer, at home and at the office, are multiplying at an increasing rate.

A threat or vulnerability is defined as something that can either damage data on your computer or take control over some or all aspects of your computer. It used to be that all we had to worry about was a new e-mail virus every couple of weeks. But in the last few years, a wide variety of what are called "blended threats" have appeared. In the next few issues of PPD's newsletter, I will be talking about some of the threats to your computers, and what you might be able to do about them. Cursing and smacking the computer have very little effect, trust me!

Almost all of the personal computers (PCs) in the world are running some version of the Windows operating system from Microsoft. An operating system is no more than a collection of programs that tell your computer how to behave. For example, when you put an audio CD in your PC's CD drive, the operating system tells your PC to launch the CD player program and start playing the CD.

Here at the Physical Plant, our PCs are running Windows 2000 and XP, with a very few running Windows 98. It is probably no surprise to hear that all versions of Windows have some security holes. It's not as if Microsoft is purposely creating these vulnerabilities. They are an inevitable side effect of the ability to have our PCs connect to other computers via the Internet and do all the convenient things

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Notables...

Outstanding staff employee

Remodeling supervisor Jerry Pilkinton was the recipient of a second staff award. The first in December 2000, the Gerald May Staff Award and in April 2004 he received the Provost's Outstanding Staff Award.

With career development in mind

Carole Vollbrecht, Special Activities supervisor received a master's degree in business administration during the UNM Commencement in the Pit in December 2004.

Recognition

At an award ceremony held recently by UNM's Human Resources Department, HSC Custodial manager Nora Boyer was recognized as a nominee for UNM's New Mexico Disability Advisory Group 2005 Manager/Supervisor Award.

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Submission of letters to the Editor, articles, photos, and suggestions is encouraged.

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Two of PPD's most beloved employees retire in 2004

Bill "Hurl" Hurley, PPD's mechanical inspector, retired after 25 years of service to UNM. At a retirement barbecue, the Physical Plant honored Bill and Marcella with retirement plaques, gifts, and t-shirts signed by their PPD co-workers. Many of us sure do miss them both.



Former Custodial administrative assistant Monica Pohl-Garcia (left), Area One electrician, and Area One painter Tom Hunter (right) serenade Marcella Medina with Las Mananitas. Marcella, PPD's service call coordinator, retired after 14 years and 8 months of service to UNM.



At a reception in the Continuing Education building, Lorraine Gutierrez is honored as a recipient of the Gerald May Staff Award. Lorraine is PPD's special facilities employee at the University House. President Caldera stands back as Lorraine gives her acceptance speech.

Five- and Ten-Year Service Awards

LuzElva Arambula, Lead Custodian, 5 years
Charlie Baca, Master Electrician, Area One, 10 years
C. Daniel Bushnell, Custodian, 10 years
Maria Caballero, Custodian, 5 years
Michael Crocker, Custodial Supervisor, 10 years
Jeffrey Gallegos, Expediter, Automotive, 5 years
Raymond Garcia, Project Manager,
Engineering & Construction, 10 years
Paul Lopez, Grounds Tech, 10 years
Robert Notary, Manager, University Facilities Engineer, 5 years

2004 Annual Service Recognition Awards

Max Apodaca, Metals Tech, Sign Shop, 35 years
Barbara Aragon, Custodian, 20 years
Michael Baca, Expediter, Area Three, 20 years
Lonnie Bakke, Structural Tech, Area Four, 15 years
Jose Bolivar, Custodian, 15 years
Earl Browning, Master Plumber, Area Three, 20 years
Eddie Castillo, Lead Custodian, 15 years
Patrick Chiwewe, Grounds Tech, 20 years
Dana Drake, Utilities Instrument & Controls Supervisor, 20 years
Pedro Esparza, Custodian, 15 years
Santiago Fuentes, Custodian, 25 years
Timothy Gallegos, HVAC Tech, Area One, 15 years
Rodney Goad, Locksmith, Lock Shop, 15 years
Epimeno Jaramillo, Custodial Supervisor, 35 years
Jose Keryte, Master Painter, Area Three, 20 years
Ricardo Lucero, Utility Plant Tech, 15 years
Donald Martinez, Electrician, Area Four, 15 years
Jerry Pilkinton, Maintenance & Construction Supervisor, 15 years
Rick Sanchez, Custodian, 15 years



Steve Butz of Johnstone Supply presents the May 2004 PPD Safety Award to Arborist Alan Billau. Pictured from left to right are PPD Director Mary Vosevich, Steve Butz, Alan Billau, and Mr. Billau's supervisor, Bryan Suhr. PPD managers and supervisors are encouraged to continue to nominate employees that demonstrate the proper use of safety and protective measures.

Where are they now?...

In ESR issues to follow, we will be including a human interest article on a former PPD employee. This first story is on one of PPD's former directors, Floyd B. Williams, Jr.

*by Rick Ruminski, Planning Officer
Maintenance & Planning*

In December of 1974, Floyd Williams became the director of the Physical Plant Department. He assumed the reins from his longtime mentor, the late Myron Fifield. He started his employment at UNM in 1955 as a part-time student employee in the electrical shop under shop supervisor Al Bearce. After receiving his degree in civil engineering in 1960, he moved through the ranks to the coordinator of construction position, and later on to director. Floyd retired from PPD on October 1, 1991 after 35 years of service.

His announced five-year plan for retirement was to force the then-existing pueblo gaming parlors into bankruptcy by being a continued "big winner." Floyd's true motivation was to bring the pueblos' inhabitants back to a more religiously-based existence by exposing the false economics of casino gambling. For those who haven't noticed, Floyd's efforts to bring about these changes were unsuccessful.

During his career at PPD, he pursued a developing interest in history with academic courses and an emerging passion for books. His research paper on the history of the D. H. Lawrence Ranch served as a PPD resource in 1997. The Physical Plant used some of that material for a brochure to distribute during a writer's festival honoring the late D. H. Lawrence.

Floyd continues his interest in history books, centered on Territorial New Mexico and its emergence into statehood. Most are historic, but an occasional novel has found its way to the shelves of his study.

Floyd maintains contact with his two sons, a daughter, and eight grandchildren. In addition, he stays involved with other Physical Plant retirees, including Mel Williamson, former assistant director of the Ford Utilities Center.

Floyd's well-maintained home and grounds show that even though you can take an individual out of the PPD, you can't take the PPD out of an individual. In Floyd's typical direct fashion, he states to this reporter that his short term goal is to "not do a hell of a lot of anything." ■

Equipment continued from page 1

enter the heat recovery boiler. This is a large device with lots of steel surface area designed to draw as much heat out of the gasses as possible. The boiler absorbs the heat into water that is coursing through tubes. This water is converted to steam, which is sent to the campus to be used to heat its buildings.

The combination of a gas turbine and a heat recovery boiler is termed cogeneration. Cogeneration is an extremely efficient process. The Center's new cogeneration unit has an efficiency just shy of 80%. That's pretty good compared to conventional power plants that have an efficiency of around 33%, or the newer combined cycle power plants that are about 50% efficient. Higher efficiency is not only great for the budget but is also great for the environment. The greater the efficiency, the fewer emissions that go out the stack.

Renovation of the Ford Utilities Center included provisions for a second gas turbine, with anticipated installation in two or three years. However, the decision to install a second turbine depends on many factors, the greatest of which is the price of natural gas.

The cogeneration unit is the last major addition to the production capabilities of the Utilities Division. The Division now has the ability to meet the

heating and cooling needs of the campus and to offset some of the electricity that we purchase from PNM. Our focus will now shift to finding ways to reduce overall campus energy consumption. ■

Computer threats continued from page 1

that they do. There are approximately five million lines of computer code that make up Windows 2000. It's pretty difficult to check for all possible problems that can arise in a system that large.

Both the good guys and the bad guys are constantly finding problems in the Windows operating system. The "good guys" usually tell Microsoft about the problem and wait to tell the rest of the world until Microsoft comes up with a fix, known as a patch. The "bad guys" often cook up something that will exploit the vulnerability and release it on the Internet to do as much damage as it can.

A quick search on the Internet reveals at least 60 known vulnerabilities in Windows 2000 and about 50 in Windows XP. Microsoft has issued patches for most of these vulnerabilities. You can minimize the threat of these vulnerabilities by keeping your version of Windows up to date. All Physical Plant Department PCs are set to download and install the most recent patches and fixes from Microsoft on their own. I strongly suggest that you set your home computer to automatically retrieve and install those updates.

Another area of vulnerability is the collection of programs that run on your PC,

such as Office, Outlook, and quite a few others. Most software vendors release updates or patches to their software when vulnerabilities are found, but these fixes are generally available only after a problem is discovered and, usually, exploited. If we add the known vulnerabilities of these programs to the operating system vulnerabilities, there are a couple of thousand known problems with the computers and software that are commonly in use today.

Considering the number of vulnerabilities, with new ones being discovered regularly, it is not really surprising that there are as many problems with computers as there are. I'm afraid to say that the experts predict that the situation is going to get worse before it gets better.

In the next ESR issue, I'll talk about several types of nasty software that are running around the Internet: viruses, adware, and spyware. ■

PPD Handbook and Policies Manual "Little Red" available online

The *Physical Plant Department Employee Handbook 2004* has finally gone to print. All PPD new employees now receive a handbook during PPD's New Employee Orientation. Furthermore, the handbook is now online. Go to [www.unm.edu/~ppd/Employee Handbook](http://www.unm.edu/~ppd/EmployeeHandbook).

A hard copy of the *Physical Plant Department Policies and Procedures Manual* is distributed to all managers and supervisors, but is also available online to all PPD employees. The online version will state each policy, give you access to related University policies and forms, and provide many PPD forms as well. Go to [www.unm.edu/~ppd/Little Red](http://www.unm.edu/~ppd/LittleRed).

If you have questions or comments on the Handbook or the Manual, you may call the office manager, Paula Reno, at 277-7831.



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