Building repairs to begin in spring

Repairs to the cracked floors in the Forest Resource Building will take place at night.

By Mike Hricik
COLLEGIAN STAFF WRITER

Office of Physical Plant (OPP) crews will likely resume repairs to the Forest Resources Building's cracked concrete floors with a night schedule in the spring, Penn State spokeswoman Lisa Powers said.

Administrators said they're pleased with the way repairs are being handled.

School of Forest Resources Director Michael Messina said the situation has been handled well by both OPP and Gilbane Building Company.

Gilbane was responsible for constructing the $30.5 million headquarters for the Penn State School of Forest Resources in 2006.

"When I learned about all of this, I thought this would be a nightmarish situation, Messina said.

"Now I have a sense that we'll do what we have to do to make this right."

Powers wrote via e-mail that a construction schedule is currently being developed.

That schedule will restrict construction in the building to night hours to minimize disruption to occupants of the building, she wrote.

The schedule should be worked out by October, she added.

Repairs should be only a minor inconvenience for forest resources faculty — a 10-minute walk at most, Messina said.

Though the construction schedule will be restricted to night hours, Messina said classes normally held in the building's four labs would be moved to the Life Sciences Building.

Messina said the cracks were noticeable before he came to Penn State as an administrator in January 2009.

Repairs were held up so the university could diagnose the problem causing the cracks and fix it, Messina added.

"You don't want to go to a mechanic and have them throw parts at your car until it works," Messina said.

Messina said OPP crews sawed up a section of the floor in June 2009 and conducted lab tests.

Engineers then determined that portions of the underlying rock base had a chemical reaction with concentrations of pyrite.

That chemical reaction caused a small expansion and uplifting in the building's foundational concrete.

Powers wrote that since the Forest Resources Building is fairly new, the university hopes to avoid litigation against Gilbane Building Company for repair costs.

Gilbane officials did not return repeated requests for comment.

Messina said when he heard from Penn State lawyers in March, they told him the university had no intention of paying for repairs.

Repairs will consist of removing cracked areas and pouring new concrete in their place.

OPP spokesman Paul Ruskin said the process to repair the floors will take up most of the spring semester.

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EASE ON DOWN THE ROAD

Kelley King/Collegian

Two students walk by the Hort Woods in between the Beam Building and North Allen Street on Tuesday afternoon. Many trees in the Hort Woods are older than the university and were cleared to make room for the university's initial construction, according to lorax.opp.psu.edu.

GOP drafts tax on shale deposit drilling

By Nathan Pipenberg
COLLEGIAN STAFF WRITER

State Senate Republicans have begun to draft new gas and oil legislation that includes a proposal to tax natural gas extraction.

The proposal is part of a plan hatched in June, when Republicans agreed to pass a bill including the tax by Oct. 1 if Governor Ed Rendell balanced the budget on time.

Rendell, along with state Democrats, have long advocated for the tax, both as a way to make sure the gas industry follows regulations while drilling in the Marcellus Shale and as a way to close Pennsylvania's $282 million budget deficit.

The tax may prove to be a major campaign point in the upcoming gubernatorial election, with Democratic candidate Dan Onorato supporting a tax while Republican Tom Corbett opposes it.

Corbett has pledged not to increase any taxes if elected, sparking discussion among Democrats that Republicans are attempting to pass the tax now so he can keep that pledge

Though legislators have begun work on the bill, many details are still in contention — from how the tax will be levied to where funds generated by the tax will go.

Until the tax is passed, Pennsylvania will remain the largest gas-producing state in the country without an extraction tax, said Tor Michaels, chief of staff for Rep. Scott Conklin, D-Centre. At a speech in Wellsboro, Pa., Rendell said, "Pennsylvania is the 15th largest production state for natural gas, but is the only major fossil fuel producer that does not levy a tax on natural gas extraction."

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>
> **Ed Rendell**
> Pennsylvania governor

State Senate President Pro Tempore Joe Scarnati, R-Jefferson, said in June that the tax was "inevitable," but since then has butted heads with Rendell over the tax's implementation.

He has accused Rendell of planning to use the tax's revenue to fill the budget gap, rather than fixing problems that gas extraction might create — like paving roads damaged by heavy trucks and monitoring water supplies.

As the natural gas industry aims to increase drilling, forces around the state are mobilizing to learn more about potential economic benefits, as well as potential threats to landowners and the environment.

With the creation of its Marcellus Center for Outreach and Research (MCOR), Penn State has begun full-scale research on the region containing Marcellus Shale and the industry's current practices.

Much of the drilling, which according to research by Penn State professors could create 200,000 jobs, relies on a process called hydraulic fracturing or "fracking."

"The gas is contained in the rock, and won't flow because of that," Penn State mining engineering professor Raja Ramani said. "Fracking is basically using a high-powered water jet to break up the rock, and then applying suction pressure to extract the gas."

According to the Department of Environmental Protection (DEP), though, fracking fluids contain a lot more than water — up to 85 chemicals, most of which are used in dilute concentrations to reduce friction in drilling wells.

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UPUA to reach out to freshmen with 'Fest'

By Kathleen Loughran
COLLEGIAN STAFF WRITER

The student government is trying something new to introduce itself to freshmen.

Today from 3 p.m. to 5 p.m. in East Halls quad, the University Park Undergraduate Association (UPUA) will hold its inaugural Fresh Fest.

Director of Freshman Outreach Rebecca Alt came up with the idea of having a freshman festival as a way to reach out to freshmen.

After other UPUA members and the executive board decided to hold the event, it was dubbed Fresh Fest.

"They are the class that we need to start with, so they know who we are," Alt (sophomore-communications arts and sciences) said. "It's a really great opportunity for freshmen because a lot of times they don't get to meet who's representing them in student government."

Ragland

But the festival will not only serve as a way to get UPUA's name out to freshmen — it will also allow freshmen to see how they can get involved in student government and what UPUA can do for students.

"In the past couple weeks, I got a record number of e-mails from freshman students asking about how to get involved in UPUA," UPUA President Christian Ragland said. "It's another outreach tool to complement the handbook."

Programming Committee Chairwoman Ali Cook said she hopes that after the festival, freshmen will realize they can use UPUA "as a sounding board for any ideas they have."

Ragland (senior-political science) said the festival will provide an opportunity for freshmen to learn more about UPUA in a less hectic environment than the involvement fairs.

Student Life and Diversity Chairwoman Colleen Cannon said the festival will be more of a casual setting where freshmen can find out about the different positions open on UPUA for freshmen, particularly the two freshmen representative positions.

Cannon (sophomore-division of undergraduate studies) said UPUA will have applications available for freshmen at the event. But the festival will not solely be informative, Cook (sophomore-finance and economics) said.

"This is a fun event — [we think it will] draw a great crowd," she said.

"We have a lot of Penn State delicacies like [Berkey] Creamery ice cream, Insomnia Cookies and College Pizza."

The event will also highlight student talent through a performance by Kappa Alpha Psi Fraternity, Inc. and a student disc jockey.

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If you go

What: Fresh Fest

When: Today from 3 p.m. to 5 p.m.

Where: East Halls quad

Details: All freshmen are welcome to attend

Professors research atmospheres of planets light-years away

By Alaina Gallagher
COLLEGIAN STAFF WRITER

While some may still be reeling from the loss of Pluto as a planet, others can find solace knowing that scientists are continuing to expand their understanding of planets more unfamiliar.

One of these scientists is Penn State associate astronomy professor Suvrath Mahadevan, who has been involved with a research group that is implementing a special technique to begin to understand the atmospheric compositions of planets outside our solar system.

"Exoplanet science is one of the real frontier areas in astronomy," said Larry Ramsey, head of Penn State's department of astronomy and astrophysics. "It's a really tough frontier to try and cross."

Because scientists are still in the early stages of understanding the compositions of other planets' atmospheres, Ramsey said it is exciting to have a faculty member involved in this work.

Using the Gran Telescopio CANARIAS telescope in the Canary Islands, Mahadevan said he and his research team worked to measure the amount of light being absorbed by a particular planet's atmosphere.

These measurements could then be used to determine the kinds of atoms found within the planet's atmosphere since various wavelengths correspond to different types of atoms, he said. Through this technique, Mahadevan's team discovered the presence of potassium in a particular atmosphere.

Mahadevan said while almost 500 planets outside of our solar system are known, only about one fifth pass in front of their star, a quality that is necessary in order for absorption measurements to be taken. Of these, only a few stars are actually bright enough to be studied using this particular technique, he said.

Currently, those that qualify are all much hotter and larger than Jupiter, and are in close proximity to their star, he said. Mahadevan said the hope of the researchers is to be able to use this technique to study much smaller planets.

"The ultimate goal is understanding planetary atmospheres and finding and characterizing those that may be like our own," he said.

Mahadevan said the particular planet he and his fellow researchers studied was located 190 light years away, a distance that is "not very far in the grand scheme of things" when considering the expanse of the universe.

However, in comparison, it only takes light eight minutes to travel from the sun to the earth, he said.

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Courtesy of **live.psu.edu**

The Gran Telescopio CANARIAS is located on the Canary Islands. The telescope has a mirror almost 35 feet wide and is situatated in an area ideal for star-gazing.