

Machine made crises help save lives

Simulators help students prepare for real-world disasters

By JEANNETTE GIBSON
Collegian Science Writer

A sudden explosion rocks the earth as a column of fire shoots from an oil well and transforms the rig into a towering inferno with a blaze that rises several hundred feet in the air.

A ventilation failure results in air that is quickly polluted by gas and dust, leaving miners — who may be working up to three miles away from such other — surrounded by air that is dangerous to breathe.

While these scenarios are fictionalized, the death and destruction caused by an actual oil rig blowout or ventilation failure are very real for engineers, said a University petroleum engineering instructor and a professor of mining engineering.

Through the use of two unique pieces of equipment — the Simran Drilling Rig Floor Simulator and the Mine Ventilation Laboratory — students in the College of Earth and Mineral Sciences have the opportunity to learn to deal with these types of situations before they assume actual on-the-job positions, said R.V. Ramani, professor of mining engineering.

The simulators provide the best available substitutes for field experience and the potential to prevent tragedies, such as oil rig blowouts or black lung disease, an affliction resulting from poor ventilation in mine shafts, Ramani said.

Students enrolled in Petroleum and Natural Gas

451 spend 15 hours a semester with the oil rig simulator which is located on the second floor of the Mineral Sciences Building, said Stan Supon, who is in charge of the lab and an instructor of petroleum engineering.

"The drilling rig simulator provides the students with valuable training that they would not get otherwise until they are on the job," Supon said.

He noted that the simulator at the University is the only one in the northeastern United States and is officially licensed by the Department of Interior to certify off-shore drillers.

"We are one of the very few universities to have a machine of this magnitude," Supon said. "We are able to let students in a drilling lecture apply the class material to a simulated real situation which allows them to learn and to make mistakes without penalty."

The benefit of that experience is that students can learn to deal with potentially catastrophic problems in the early stages in order to prevent an actual disaster.

Ramani said the mine ventilation lab at the University is "a tremendous substitute" for experimentation at an actual mine site.

"You cannot get any closer to the real world," he said.

"Two underground tunnels were included in the original design of the Mineral Sciences Building more than 50 years ago, so the groundwork for the lab was already in place," Ramani explained.

"Trap doors in the basement of the building allow students to enter and experience the environment of an actual mine shaft."

Three large fans are used to draw air in and out of the concentric tunnels, with different blowing modes possible, Ramani added.

The benefit of simulated mining experience for students is similar to that received by students who work with the oil rig simulator.

Students spend approximately 24 hours working in the mining ventilation laboratory during the semester, where they receive training that is "absolutely critical for health and safety in mining engineering," Ramani said.

"Mine ventilation works very much like a city subway," Ramani said. "The function of ventilation is to take fresh air from the surface to places where men work, providing them with the clean air they need to breathe."

The consequences of poor ventilation are sometimes experienced by miners later in life when illnesses such as black lung disease, which can produce respiratory problems, result from prolonged exposure to coal mine dust.

"Although some of the equipment is more than 50 years old, engineers and academics who visit Penn State are impressed with our equipment," Ramani said.

According to Ramani, mines today are much safer than ever because of improved health and safety training.

WELCOME BACK STUDENTS

Tiffany Deli 318 E. College Ave.
237-6200

STOP IN WITH THIS SUPER SAVINGS COUPON
10" HAM HOAGIE \$2.25

EXPIRES: 6-30-87
OFFER GOOD ONLY WITH WALK-IN

PLAYLAND

OPEN 8 A.M. to 4 A.M. DAILY

OVER 140 GAMES

ALL THE LATEST GAMES

RASTAN RED LINE TEE'D OFF DUNK SHOT ALIEN SYNDROME RESCUE RAIDER

COME AND TRY YOUR HAND

PINSBALL

EST. 1968

TV GAMES

PHONE 238-9300

350 E. College Ave.

TWO ENTRANCES

349 E. Calder Way

Botha renews S. African state of emergency

By LAURINDA KEYS
Associated Press Writer

JOHANNESBURG, South Africa — President P.W. Botha said yesterday he had renewed a national state of emergency that during the past year has given police wide powers to crack down on people protesting apartheid.

"Considering the safety of the public and the maintenance of public order, I have decided to proclaim a state of emergency once more in the whole of the republic, including the self-governing national states (black tribal homelands)," Botha told Parliament in a speech he repeated on national television. "I have already signed the documents in this connection."

Botha's June 12, 1986, state-of-emergency decree and a series of related regulations empowering police to restrict freedom of speech, press and assembly were due to expire at midnight today. The new

decree legally extends the state of emergency for up to a year.

By law and custom, apartheid establishes a racially segregated society in which South Africa's 24 million blacks have no vote in national affairs. The 5 million whites control the economy and maintain separate districts, schools and health services.

Botha said the background "against which deeds of violence and unrest were being planned and executed" last June still exists.

When Botha declared the emergency last year, he cited statistics on increases in public violence. More than 20,000 people have been detained without charge since then, but the government indicated earlier this month that just over 3,000 were still being held.

The Detainees Parents Support Committee reported a few hours before Botha's Parliament speech that a large number of black community leaders had been released from de-

retention yesterday without explanation.

Some legal experts said that anyone detained under the expiring emergency would have to be released, but that they could be immediately detained again and did not necessarily have to be formally freed.

Many provisions of the emergency regulations have been challenged in court over the past year, and sections have been overturned. The government was expected to rewrite portions of the new emergency regulations to meet the courts' objections and tighten restrictions in some cases.

The government has succeeded in sharply reducing unrest in the past year through mass detentions of black activists, militants and youths; heavy security force presence in the townships; prohibitions on demonstrations and meetings; and new programs to provide houses, basic

municipal services and jobs to black communities.

In the past year more than 400 people have died from the unrest, which has included fighting between rival black political groups. But the daily rate of deaths, property damage and violent incidents is down, according to figures from the government and independent groups.

Despite that, "the underlying revolutionary climate in many parts of the country has not abated," the government Bureau for Information said less than an hour before the Botha speech.

"It is the opinion of the South African authorities that lifting the state of emergency under the present circumstances would quickly result in a renewed cycle of violence and unrest," the bureau said.

Botha announced the extension of the emergency in a rare address to a joint sitting of the three houses of Parliament.

notes

• The Graduate Student Association will show *From Mao to Mozart* in Fisher Plaza tonight at 8.

• The HUB Craft Centre will hold an open house tonight from 7 to 9.

• Summer Session Diversions will sponsor a music recital in Fisher Plaza today at noon.

police log

• A \$44 car emblem was reported missing Tuesday by Jan Hagen-Fredrikson, 315 S. Allen, State College Bureau of Police Services said.

• University Police Services said they ordered a vehicle parked in a traffic lane on Shortridge Road towed after an unsuccessful effort to locate the vehicle's owner.

• A wallet and dorm key valued at \$20 was reported missing by Dave Trobert, 419 Atherton Hall, University police said.

• Vehicle trim valued at \$20 was reported missing by the vehicle's owner, Ted Perry, 801 Southgate Drive, while it was parked in parking lot 60, University police said.

• A dog was apprehended near Grange Building and taken to the SPCA, University police said.

• University police said one of two persons found in Ewing Hall with alcoholic beverages was referred to the office of student conduct standards after they refused to produce identification. Police said both were found to be over 21. —by Karl Hoke

Plant doctor takes over where green thumbs fail

By SEMELE HALKEDIS
Collegian Science Writer

Most people know what to do when they get sick, but what about when their plants get sick? Call the plant doctor, of course.

John Peplinski, commonly known as the "plant doctor," said if someone gives him a sample of a diseased plant, he can diagnose the disease and explain how to treat it.

Peplinski, coordinator of the University's Plant Disease Clinic, diagnoses problems in plant specimens from all over the state.

"We get samples from commercial growers across Pennsylvania as well as Pennsylvania homeowners," he said.

About half his specimens come from commercial growers, including greenhouses and nurseries, and the other half come from homeowners, he said.

Peplinski said he also works in conjunction with the University's Cooperative Extension Service,

which sends him specimens from its various offices which are located in every Pennsylvania county.

Scott Harkcom, assistant agent for the extension service in Centre County, said that although it is possible for some specimens to be identified in his office, the majority are sent to Peplinski at the Plant Disease Clinic.

"We give information on how to get a sample sent in (to the clinic), or we will take them in ourselves if people bring them to us," he said. He added that individuals who want to send their specimens directly can use the Plant Disease Clinic Kit, which can be obtained from either the clinic or the extension service.

Harkcom said the extension office is really "more of an educational branch" than a diagnostic clinic. The Centre County office, as well as others across the state, primarily keeps in touch with growers to let them know if there are any prevalent diseases they should watch for in their plants.

Communications methods include monthly newsletters sent out by the extension service county offices as well as the extension computer service, a system people can hook their home computer into by contacting their county agent.

Communication is very important, particularly for commercial growers who depend on plants for their livelihood.

"It can be really important that we diagnose and get in touch with people because some things can put people out of business," Harkcom said.

Peplinski said he is responsible for every sample that comes into the disease clinic, including those sent from the extension office and those brought directly to the clinic.

However, he added, at times he runs into diseases with which he is not familiar. When that happens, he consults with other members of the plant pathology department.

"Each of our faculty members backs (Peplinski) up in our area of expertise," said Gary Moorman, assistant professor of plant pathology.

Brothers Pizza
Fast... Free... Delivery

**Buy 1 Large Pizza
6.00 for 4.99**

Mon-Sat 4pm-2am
1641 N. Atherton St. 238-9403

THANK YOU

A special thanks to the voters that supported my candidacy for re-election as Centre County Register of Wills. Your Continued support will be greatly appreciated.

Roger A. Bierly
Register
Paid for by the candidate

Le Papillon

Fine Service
DAILY LUNCHEON BUFFET

Great Food
SUNDAY BRUNCH

THURSDAY CHAMPAGNE BUFFET

Daily Specials
Sumptuous Desserts

PAPILLON
100000 Resort Hotel
One Country Club Lane
237-4377

Entertainment
Nightly

MAGGIE'S MEMORIES

*Thrifty Shopping At It's Best
Name Brands for Less \$\$\$*

Summer Hours:
Tues, Wed., Thurs., Fri.
12-6 p.m.
Thurs. 12-8:30 p.m.

Featuring a Complete Line of
New and Used Clothing,
Vintage Wear, Estate Jewelry,
Hats and Much, Much More.

Located at 236 South Allen St.
next to Bell Telephone
237-6494

Consignments accepted Wed. & Thurs. after 4 p.m.

WE TAKE SUMMER SERIOUSLY
AT THE SURF CLUB
home of the Shooter & Surf Club Cooler

TNT

Every Thursday Tanqueray & Tonic \$1.00
Tacos 50¢ 5-7 Tropical Happy Hours 5-7

ENTER ON CALDER WAY OR COLLEGE AVE. ACROSS FROM OLD MAIN

THE ORIGINAL Italian PIZZA & RESTAURANT

LARGE PLAIN PIZZA \$5.50

Monday - Pizza: All you can eat
11am - 6pm - \$2.59
Eat in Only

FREE DELIVERY AFTER 5:00 PM
222 W. Beaver
(Under Beaver Plaza Apts.)
238-5513

Do You Have Questions?
ON DRUGS, INC.

Has The Answers!

Completely Confidential
Crisis Intervention & Counseling
Drug & Alcohol Information
CALL: 237-5855

STOP IN: 236A S. ALLEN ST.

HELP
is only a phone call
or short walk away
24 hours a day.

Wendy's

**GIVE A LITTLE NICKEL.
GET A LITTLE NIBBLER.***

NEW Hot 'n Junior

Just 5¢ with the purchase of any large sandwich or salad.

FOR A LIMITED TIME ONLY.

Wendy's is introducing a smaller hamburger. For those times when you just want a little nibble.
It's called the Hot 'n Junior. And as a special introductory offer, you can get one for just a nickel when you buy any large sandwich or salad.
So come on in and bring a friend. Or bring an extra big appetite. And get a little nibbler for just a little nickel.

NO COUPON NECESSARY. PRICE INCLUDES CHEESE. TAX EXTRA.
© 1987 Wendy's

DOMINO'S PIZZA

DOMINO'S PIZZA DELIVERS®

Fast, Free Delivery™

NORTH
237-1414
1104 N. ATHERTON

SOUTH
234-5655
421 Rear E. Beaver

Hours:
11:00am-2:00am Sun.-Thurs.
11:00am-3:00am Fri. and Sat.

Our drivers carry less than \$20.00.
Limited delivery area.
© 1987 Domino's Pizza, Inc.

4 free pepsi's with any large pizza

Present this coupon to get 4 free pepsi's with any large pizza
Offer good only at participating locations
customer pays applicable sales tax
One coupon per pizza
Expires 6/13/87

Fast Free Delivery