

High tech industry safety is questioned

By FRED BAYLES
Associated Press Writer

BURLINGTON, Mass. — Sometime in the early hours of June 11, John Zemotel, a 31-year-old technician at a Route 128 high-tech firm, either deliberately or accidentally inhaled arsine gas, a toxic vapor used to cook circuits into high-speed microchips.

In hours, Zemotel was in a hospital, his kidneys failing. Eleven days later he was dead.

Occupational safety experts and union organizers say Zemotel's death dramatizes the dangers lurking in the laboratories and production lines of the nation's booming technology industries.

The critics deride the public notion of high tech as a "clean industry," where workers in white lab coats worry more about contaminating their product than contaminating themselves.

"The myth has got to be debunked," said Ken Geiser, an associate professor of urban and environmental policy at Tufts University. "It is not that high tech is dramatically more dangerous than other industries. It is the perception that it is cleaner and safer that is dangerous."

But industry officials say isolated incidents have been overplayed and claim one of the best safety records in U.S. history.

"You talk to all the environmental affairs and Environmental Protection Agency people and they've been saying the high tech sector has a very high health and safety record," said Charles Baker, a spokesman for the Massachusetts High Technology Industry.

The American Electronics Association estimates some 2.4 million people work for companies producing or using electronic components; in Massachusetts, about 300,000 people work for technology businesses.

U.S. Bureau of Labor Statistics figures indicate

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—Jack Barry, Boston region Labor Department

that those in the business of manufacturing electronic components and accessories have an accident and illness rate nearly half the national average.

In 1982, the last year of complete figures, high tech manufacturing workers nationwide had a 5.8 percent incidence of injury and illness, compared to 10.2 percent for all manufacturing jobs.

But Jack Barry, chief of occupational safety and health statistics for the Labor Department's Boston region, said the numbers didn't reflect problems that could crop up years later.

"Many illnesses may not be recognized as work-related and many illnesses don't show up until after the worker has left the firm," he said.

Few studies have looked into the long-term health effects of the high tech workforces. Geiser mentioned a 1983 study in the British Journal of Industrial Medicine, which reported that electronics workers in Sweden, whose health was tracked over a past decade, had a higher than average incidence of cancer in the respiratory system.

Geiser also said a 1980 report by the California Department of Industrial Relations had raised questions about the immediate health effects of the high tech workplace. That study reported an

illness rate among workers making semiconductor chips was three times the norm in other manufacturing industries.

The hazards have not gone unaddressed. Industry and labor recently agreed to a new Massachusetts law that requires manufacturers to tell employees about toxic substances and their effects. The law goes into effect later this year.

But Geiser worries that exotic chemicals used in high tech industries may be exposing workers to unknown health risks.

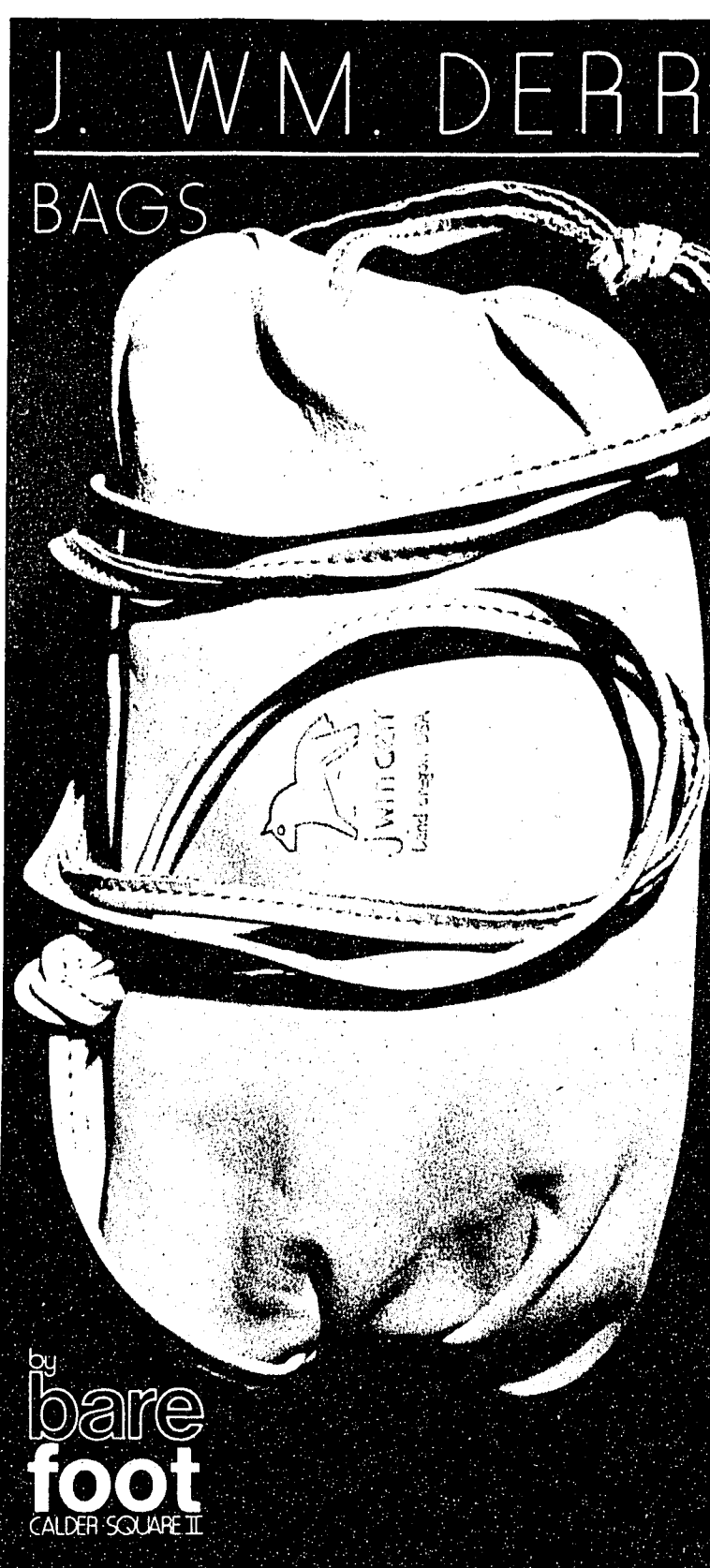
Solvents like trichloroethane and methyl ketones, used to make microchips, are known to affect the human central nervous system. Epoxies and chloronaphthalenes used to protect circuit boards are suspected carcinogens.

Others fear the long-term effects from the production of gallium arsenide microchips, cheaper and faster components that may someday replace silicon chips.

The production process uses arsine gas, a combination of hydrogen and arsenic that can be fatal in large doses. In smaller doses it is a suspected cause of skin and lung cancer and behavior changes, including mood swings and paranoia.

Zemotel's employer was MA-COM, which makes telecommunication components. The company had transferred Zemotel from arsenic gallium chip production when a routine health check in March found his urine contained higher than normal levels of arsenic. The levels later returned to normal.

But MA-COM officials say they have witnesses and a deathbed statement by Zemotel to prove he went into a room without authorization, removed a panel from the cabinet containing the gas tanks, took off a protective cap and released a stream of gas into his face.



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Park Ave. construction almost complete

Road construction in the northeast section of campus, aimed at rerouting trucks and through traffic around State College, is scheduled for completion by Sept. 1, the director of University Safety said last week.

David E. Stormer said the project, which began in May, is part of the State College bypass construction, which will connect Park Avenue, the road behind Parking Lot 81, to the bypass.

The bypass will be completed in 1986 in response to a demand in State College for additional routes. Stormer said the tie-in to Park Avenue will be a major University entrance and will allow access to Centre Community Hospital. Park Avenue will extend to the hospital.

He added that Pennsylvania Department of Transportation workers could have finished the work last week, but were hindered by wet weather during the summer months.

Stormer said traffic normally on Park Avenue and University Drive will be routed to Curtin Road until Sept. 1. Other roads in the area will be temporarily designated as one-way.

Stormer said the Sunday arrival date for freshmen and transfer students was helpful because traffic was not as heavy as normal.

"We didn't have the faculty, staff and normal weekday traffic," he said.

However, many arriving students did have to contend with some traffic.

Both Smolton (sophomore-pre-law) said it took her about 45 minutes to get to Bigler Hall once on campus.

"(The traffic) made it really miserable for people trying to move in, Tracey Bentzel (senior) and her family studies said. "People handled it really well, though."

Notices in the faculty and staff newsletter, television releases and letters to departments in Shields and Wagner helped keep unnecessary traffic from the area. Traffic control personnel



Workers oversee construction that has been taking place all summer at Park Avenue and Bigler Road.

also kept the congestion to a minimum.

Stormer said motorists should allow an extra 15 to 20 minutes if driving in the affected area this week, especially from 4:30 to 6:00 p.m. He suggests that students walk to the administration buildings.

University Police Services, although not involved in the investigation, reported yesterday that Holsinger was a senior at Elizabethtown College and was apparently just visiting State College. He attended Summer Session at University Park campus.

Holsinger is survived by his parents, Mr. and Mrs. John Holsinger of Palmyra.

Holsinger was transported to Centre Community Hospital by ambulance where he was pronounced dead at 2:25 a.m., according to nursing supervisor Mary

Borough police are still investigating the incident, but no further information was available, Stuller said.

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"We will just have to bear with it because there will be congestion," Stormer said.

He said the final coat of asphalt was put down Wednesday. Motorists can look for new traffic lights at University Drive and Shortidge, Bigler and Fox Hollow roads.

—by Nancy Stewart

collegian notes

- The Penn State Juggling Club will hold its first meeting of the Fall Semester at 8:30 tonight in 133 White Building.
- The HUB Craft Centre will sponsor a craft sale between 10 a.m. and 4 p.m. today, Tuesday and Wednesday on the first floor of the HUB.
- The College of Education is offering a two-credit College Reading Improvement course Mondays and Wednesdays, fifth, sixth, and seventh periods during Fall Semester. Those interested should register for the course at the College of Education offices in 181 Chambers.
- Fall Orientation Tours for graduate students will be held at 10 a.m., 2 p.m. and 4 p.m. today in Pattee.
- The staff of the Penn State Engineer Magazine will hold a meeting for persons interested in the publication at 7 tonight in 323 Sackett.
- The Newman Student Association will sponsor a special mass to celebrate Fall Semester at 7:30 tonight in Eisenhower Chapel.

police log

- Anthony Smith, 2215 Circleville Road, reported yesterday the theft of his wallet from his car between midnight and 1 a.m. University Police Services said. Smith's car was parked in Parking Lot Orange B outside of Sprout.
 - Kurt Murray, 121 N. Gill St., told University police his bicycle was stolen Saturday from the south side of Willard. The bike is valued at \$399, police said.
- by Terry Mutchler

Flu outbreaks may be caused by sun

LONDON (AP) — A new study suggests that influenza epidemics are triggered by global movements of the sun and its rays — not by the random arrival of alien viruses.

The study by Dr. Robert Hope-Simpson of Britain's Epidemiological Research Unit, published in the latest Journal of Hygiene, researched all major flu outbreaks around the world between 1964 and 1975.

Hope-Simpson said current medical opinion that the flu virus travels via endless — and sometimes international — chains of direct transmission from the disease from individual sufferers, fails to explain why epidemics tend to be seasonal.

He identified a chronological pattern, with the so-called flu seasons occurring around the earth's surface in a curve roughly six months behind

the "midsummer" curve, when the sun is directly overhead.

The data showed that, for example, two widely separated localities on the same line of latitude — Prague and Cirencester, England — had a series of simultaneous flu outbreaks caused by the same virus between 1969 and 1974.

A comparison between England and New South Wales in Australia, two regions on latitudes roughly equidistant from the equator, further revealed that the same virus sparked off epidemics in both locations some six months apart.

Hope-Simpson said such phenomena occur because the seasonal variation in the sun's movements along each line of latitude activates the latent flu virus existing in those

Such phenomena occur because the seasonal variation in the sun's movements along each line of latitude activates the latent flu virus existing in those areas. He did not explain how the activation occurred.

— Dr. Robert Hope-Simpson of Britain's Epidemiological Research Unit

areas. He did not explain how the virus is reactivated, such carriers become for a short period intensely infectious to their non-immune contacts, he said.

Influenza symptoms usually occur abruptly, with fever, muscular aches, and inflammation of the respiratory mucous membranes.

21-year-old man dies in fall from scaffolding

A 21-year-old Palmyra man fell to his death early Friday morning in an accident at the Alpha Chi Rho fraternity house, 425 Locust Lane.

Kerry Holsinger of 20 E. Maple St., Palmyra, climbed the scaffolding attached to the house and fell about 40 to 50 feet when the scaffolding apparently came loose from the building, said State College Police Corporal James Stuller.

Holsinger was transported to Centre Community Hospital by ambulance where he was pronounced dead at 2:25 a.m., according to nursing supervisor Mary

Borough police are still investigating the incident, but no further information was available, Stuller said.

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USG Senate spends weekend acquainting itself with issues and setting semester's goals

The Undergraduate Student Government Senate left the hustle and bustle of State College this weekend to get its senators better acquainted and to lay out semester goals.

USG President Adam Levinson said the retreat, held at camp Blue Diamond in Mooreville, gave the new senators an opportunity to learn how USG works so they can make an "educated" start on the semester.

"There's a lot of new senators and Adam (Levinson) thought it would be a good idea (for them) to get away...to get to know each other," Town Senator Michael McDonald said.

Senate President Kate Cooney said

the senate is going to combine some of its committees and narrow down each one's purpose. Some of the committees may be eliminated.

"We want to put a lot of them together," Cooney said. "That's the basic idea."

The senate will also be working more on publicity, she said.

"It still takes a lot of effort for senators to find out what students feel and vice-versa," Cooney said. "In the past, we've had a problem with visibility."

Levinson said the retreat, which cost \$100, was funded through Associated Student Activities.

—by Steve Wilson

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