PCBs:

FRONT PAGE

Pervasive, persistent . . . . . perilous?

Monsanto 4377

By James Gray
Register staff writer

About 25 times a year, a clear, oily substance leaks or sprays from the rectangular metal boxes perched high on many Orange County telephone poles.

For the Southern California Edison Co., such an event is cause for alarm. Cleanup crews in protective plastic coveralls hurry to the scene. When necessary, soaked pavement is scrubbed with a special solvent, soil is dug up, contaminated trees are uprooted. The fluid, the ruptured metal container and other wastes are shipped off to Arkansas to be burned in a special incinerator.

The oily fluid is composed of PCBs, or polychlorinated biphenyls, chemical compounds that have been shown to cause cancer in laboratory animals and are suspected human carcinogens. They are among the most widespread and long-lived pollutants in the environment.

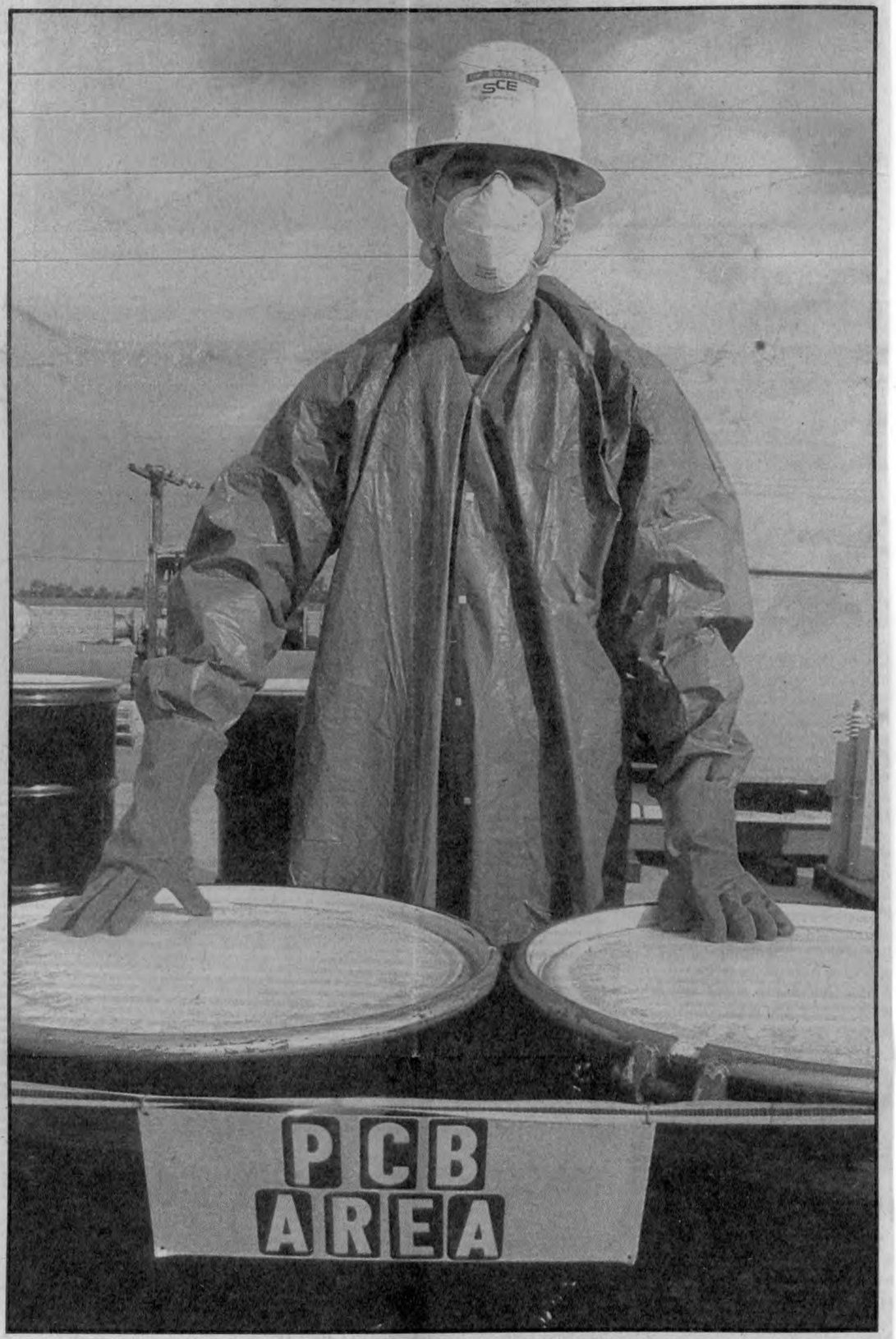
"Once they are in the environment," said Dr. Alex Kelter, of the U.S. Center for Disease Control in Atlanta, "they are there for good — or for bad."

Small amounts of PCBs have been detected in fish from Scotland to Canada, in polar bears and in Antarctic ice floes. They are found in soil, water, red meat, dairy products and animal feed throughout the world. All human beings are presumed to have traces in their blood.

The same chemical properties that make PCBs useful for industrial purposes — especially as coolants and flame retardants in electric capacitors and transformers, — enable them to persist in the environment for decades or even hundreds of years. They are resistant to heat, slow to react, and all but immune to decomposition by bacteria or other means.

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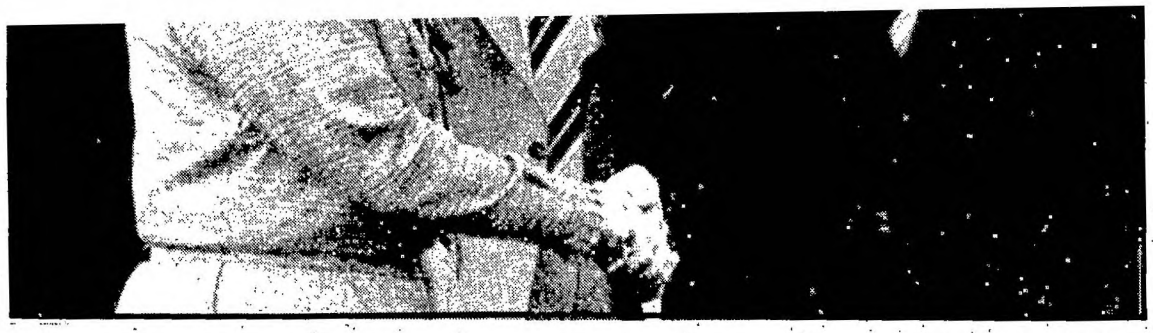
Please see **PCB/A5**



Pat Tehan/The Register

Southern California Edison groundsman Daniel K. Sorrell demonstrates the protective clothing worn by crews cleaning up PCB leaks from equipment on telephone poles.

PCB-ARCH-EXT0376181



Associated Press

Leaders meet

Egyptian President Hosni Mubarak arrived in England on Saturday after a four-day visit to Washington. He was taken to Chequers, the official country residence of Prime Minister Margaret Thatcher, for talks before his return to Egypt today.

Civil rights workers take to road in voting protest

By Reginald Stuart
New York Times

CARROLLTON, Ala. – A small band of Southern civil rights workers, followed by nearly 300 sympathizers, Saturday began a 140-mile march in support of the federal Voting Rights Act and in protest against the vote fraud conviction here of two black political activists.

The civil rights march is expected to be the longest and the largest in the South since the historic Selma-to-Montgomery march of 1965. That demonstration drew thousands by the time it reached the state Capitol in Montgomery and is credited with hastening the enactment of the Voting Rights Act that year.

Along the march route and when they arrive at the state Capitol, now planned for Feb. 18, the demonstrators will protest the convictions of Julia Wilder, 69, and Maggie Bozeman, 51, on charges of mishandling absentee ballots solicited from elderly, illiterate blacks. Both women pleaded not guilty.

An all-white jury gave the two women the sternest sentences for a vote fraud conviction in recent Alabama history, the maximum five years for Wilder and four years for Bozeman. The protests about the verdict gained support when an Alabama appeals court panel, while sustaining the convictions, raised questions about the substance of the case, asserting that much of the testimony given by most witnesses was "confusing and conflicting."

The sponsor of the march, the National Coalition to Free Julia Wilder and Maggie Bozeman and Save the Voting Rights Act, believes the vote fraud case here is evidence of continued harassment and persecution of blacks seeking political involvement in the South. In two hearings along the route of the march, the coalition hopes to collect more stories to support their position that Congress should approve a strong version of the voting law.

"We are marching because the convictions were unjust and because this is a good reason for proving why we need the voting act," said Willie L. Davis, the 25-year-old president of the Pickens County chapter of the Southern Christian Leadership Conference.

At the head of the line in Saturday's march was the Rev. Joseph Lowery, president of the Atlanta-based leadership conference; Walter E. Fauntroy, delegate to the House of Representatives from the District of Columbia and chairman of the Congressional Black Caucus, and Mayor Johnny Ford of Tuskegee, Ala.

northeast corner of the state.

At least four people were killed in Texas and two died in Arkansas as freezing rain and sleet spread across the Gulf Coast area. One woman was killed in a three-car pileup on snowy Interstate 93 in New Hampshire.

Dense fog reduced visibility to near zero in northeast Florida and southeast Georgia.

It was the coldest Feb. 6 on record in dozens of cities from Illinois to Idaho and south to San Antonio, Texas.

A month-long trend continued in a winter that has seen cities such as Chicago, Milwaukee and Akron, Ohio, suffer their coldest days since the National Weather Service started keeping records 111 years ago.

"No relief is in sight yet from the bitter cold,' said the National Weather Service in Idaho, where it was 35 degrees below zero at Stanley and 34 below at Malad.

Temperatures dropped below zero from the Rockies to Indiana and the western Great Lakes states as the cold air changed rain to sleet across the Gulf Coast and snow fell in New England.

Temperatures in Texas dropped as low as minus 7 at Dalhart and minus 5 at Amarillo. Cities in that state posting record subfreezing temperatures for the date included Fort Worth, 14; Midland, 16; San Antonio, 22, and Houston, 27.

It also dipped to 13 below in Chicago, where a new blanket of 5 inches of snow on Friday snarled traffic at the evening rush hour.

While the winter of '82 has dealt some cities their coldest weather of the century and inflicted heavy damage to crops, it remains to be seen whether this season will match the winter of 1977 that cost an estimated $38.6 billion.

Severe cold that winter lasted from October to late spring. It brought 43 consecutive days of subfreezing weather to Florida, snow to north Florida and caused gas and heating fuel shortages in a dozen states.

Amtrak train rams auto; five killed

COMMERCE (AP) – Five people were killed Saturday when an Amtrak train smashed into a car that had driven around a closed crossing gate and onto the track, Los Angeles County Sheriff's officials said.

Deputy Marc Klugman said four of the victims were trapped inside the car and burned to death as the auto-

Costa Rica marks election with revelry

By Joe Frazier
Associated Press

SAN JOSE, Costa Rica – Despite Costa Rica's near-bankrupt status and bleak outlook for a fast recovery, the windup of a six-way race for president was more like a carnival than a campaign on election eve Saturday.

ty, would win by a three-to-one margin over Rafael Angel Calderon of the ruling Unity Party. But Calderon, a 32-year'old former foreign minister, insists he will defeat Monge by a 4 percent margin.

Also in the race are former President Mario Echandi, 66, who heads the Conservative Party and held the presidency from 1958 to 1961; Dr.

Woman shot 3 times off critical list

FULLERTON — Mary Turner Pike, 40, was reported in improved condition Saturday, recovering from gunshot wounds allegedly inflicted by her estranged husband at the family home Friday night.

Cindy Gallegos, nursing supervisor at Anaheim Memorial Hospital, said the woman underwent

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FROM A1

PCBs collect in the fatty tissue of human beings and other living organisms, and are regarded by the U.S. Food and Drug Administration as "unavoidable contaminants in the food chain."

Since 1979, it has been illegal to manufacture or sell PCBs for commercial use in the United States though they are still produced and sold in many foreign countries. Federal regulations prohibit their disposal in even the most secure landfills, except in low concentrations.

But for nearly 50 years, beginning in 1929, PCBs were used widely in a variety of industrial products, including hydraulic brake systems and dust control agents. Until 1977, when it voluntarily ceased production, Monsanto Corp., the major American manufacturer of PCBs, produced an estimated 1.4 billion pounds of the substance.

Despite current efforts by Southern California Edison and other utilities to contain PCB spills and to replace electric equipment containing PCBs, millions of pounds have escaped into the American environment during decades of unrestricted use and disposal.

In Orange County, the residual effect of PCBs is still apparent. Water quality officials said small amounts of PCBs detected in Santa Ana River sunfish during 1980 probably came either from sewage treatment plants located on the river outside the county or from chemical spills that may be decades old.

Tests have shown that PCBs cause cancer, low birth rates, liver malfunction and other disorders in laboratory animals. It has never been proved, however, that PCBs cause cancer in human beings. Studies on the long-term effects of exposure to small amounts of PCBs continue, but to date the chief documented effects include a temporary skin rash known as chloracne and impairment of the function of the liver.

The possible health effects of PCBs were first dramatized in the so-called Yusho (literally, rice oil) incident in Japan in 1968, when thousands of people suffered chloracne, nervous disorders, fatigue, abdominal pain, menstrual irregularity and other ailments.

But Dr. Cathleen Kreiss, a PCB authority with the Center for Disease Control, said the Yusho victims appear not to have suffered permanent health problems. She said the evidence also now suggests that the problems may have been caused by chlordibenzofurans contained as impurities in PCBs rather than the PCBs themselves.

Eugent Clark, chief engineer for Southern California Edison's customer services department, said the company stopped installing PCB capacitors after the EPA ban in 1979 and began replacing them the next year. Today, he said, PCBs are used in 51,000 capactors located on 7,000 telephone poles located in business, industrial and residential areas throughout Southern California.

The capacitors (devices that maximize the efficiency of the power system) are contained in rectangular metal boxes marked by yellow stickers. Clark said Edison never has used PCBs to cool transformers, the round metal containers on telephone poles.

Ronald Whelchel, vice president of Edison's Orange County division, said Edison has reduced the number of telephone poles with capacitors containing PCBs in Orange County from 1,300 in 1980 to about 980 last year. This year, he said, PCB-filled capacitors on another 360 poles in the county will be removed from service or fitted with a new device that senses when the capacitor is about to fail.

Capacitors on about 350 county poles already have been fitted with the device, Whelchel said. He said the company has averaged about 25 PCB spills a year among its total of 6,000 capacitors in Orange County but expects the new sensing device to reduce that number by 90 percent.

The failure rate for Edison's PCB capacitors in Orange County works out to about 0.4 percent. That's four times the ratio for the Pacific Gas and Electric Co. throughout its service area in northern and central California, said PG&E spokesman Chris Piper.

rials cotaminated with PCBs at levels between 50 and 500 parts per million may be dumped only in designated Class 1 landfills. The only such landfill in California equipped to handle PCBs is located at Casmalia, near Santa Maria, but Clark said Edison also uses a similar landfill in Beatty, Nev.

Incineration of PCBs requires a special high-temperature system to prevent air pollution, and the EPA has licensed only two such incinerators in the country — one in Texas and one in El Dorado, Ark.

Clark said it costs about $100 to remove and dispose of a single one of Edison's 51,000 PCB capacitors and ship it to Arkansas — about the same amount it cost to buy a capacitor 30 years ago. A capacitor normally lasts about 30 years before it fails, unless damaged by lightning or some other sudden occurrence, he said.

The EPA rule requiring PCBs in concentrations of 50 to 500 parts per million to be sent to Class 1 landfills may not be justified, Clark contended, in view of the lack of solid scientific proof of health impairment due to PCBs.

The California Department of Health Services is considering a state regulation that would lower that limit to 7 parts per million. Clark said such a rule would involve major expense to the company and would burden Edison ratepayers.

But Gary Davis, a chemical engineer for the state Office of Appropriate Technology, said the new standard is needed because of the pervasivness and toxicity of PCBs, even at low levels.

PCB-ARCH-EXT0376183

U.S. wants to offer China higher levels of technology

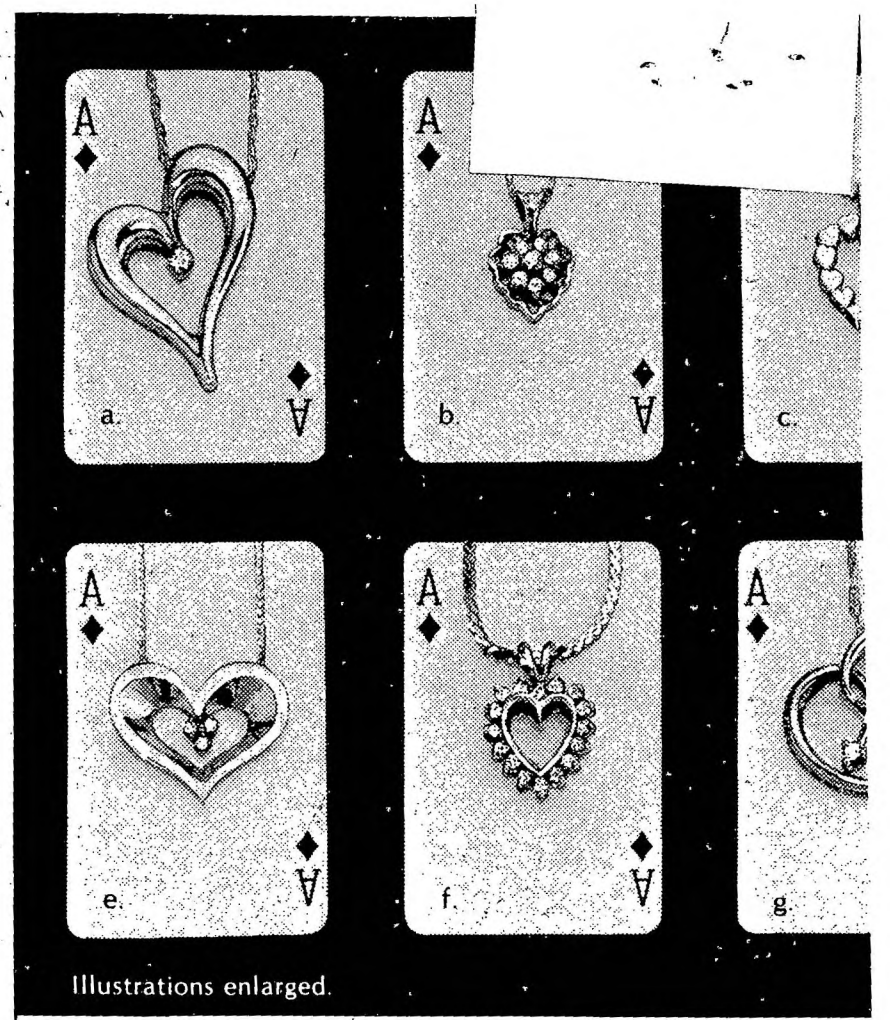
By Christopher S. Wren
New York Times

PEKING – A ranking United States trade official said Saturday that the Reagan administration hoped to raise the level of American technology that China was permitted to buy.

Lawrence J. Brady, assistant secretary of commerce for trade administration, told reporters, "We anticipate the technology levels to increase and we're willing to license in a manner that is different from

The exhibition, covering 77,000 square feet, features textile and shoe manufacturing machinery, cold storage and refrigeration units, food processing and packaging machines and printing and photographic equipment. But it also includes sophisticated analytical and process control instruments, including lasers and spectrometers.

Eugene K. Lawson, the deputy assistant secretary for East-West trade, told reporters that Sino-American trade was expected to reach $6.8 billion to $7.5 billion in



Illustrations enlarged.

Hearts 'n dian
14 Karat gold
You're playing with a stacked deck when you de
hearts and diamonds. Here, in 14k gold, a samp
a. 275. b. 395. c. 175. d. 575. e. 350. f. 495. g. 3

pan in 1968. PCBs leaking from a heat exchanger contaminated rice oil used for cooking by more than 1,300 people. The victims developed skin rashes and discol-

The U.S. Environmental Protection Agency requires PCBs in concentrations above 500 parts per million to be burned rather than deposited in landfills. Mate-

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