

MONITOR

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JOB HAZARDS IN LAUNDRIES AND DRY CLEANING PLANTS

by ANDREA HRICKO

SOME POTENTIAL HAZARDS

Over 165,000 workers are employed in U.S. laundries and drycleaning plants; 64 percent of the workers are women. Many launderers are constantly exposed to hot water, soap, and detergents that can irritate the skin. The solvents to which both groups of workers are exposed can also cause skin irritation.

LAUNDRIES: soaps; detergents; caustics; bleaches; acids; heat; heavy lifting; clothes contaminated with industrial chemicals, dust, or microorganisms (germs).

DRYCLEANING: solvents such as perchloroethylene, trichloroethylene, carbon tetrachloride, benzene, naphtha, and others; heat from steampressing; and contaminated clothes.

To the extent that some laundries and drycleaning establishments are under the same roof, workers in either job may be exposed to the hazards of the other.

If spot cleaners are used for persistent stains, local exhaust ventilation systems should be installed over the "spotting" table. Use any spot remover with care. *Never* use spot cleaners containing benzene, carbon tetrachloride, chloroform, or trichloroethylene—they have all been linked to cancer.

LAUNDRIES

In 1863 women laundry workers in Troy, New York went on strike because of hot, oppressive working conditions and low wages. Laundry work is generally still hot and tiring—steam pressing is common, and nearly all the work is done standing.

A 1972 California survey of 587 disabling work injuries among laundry workers revealed that nearly 1/3 were

due to strain or overexertion. Falls were also common, occurring mostly in areas where water spills had not been wiped up or where bundles of laundry littered aisles. Forty-three workers suffered finger or hand burns from clothes pressers.

Laundry workers can also develop occupationally-related diseases. Hospital laundry workers are exposed to germs on dirty bed linens and hospital clothing. Industrial laundry workers can unknowingly be exposed to cancer-causing or other dangerous industrial substances, such as asbestos, lead, or beryllium. Some women are known to have developed berylliosis and asbestos-related diseases just from laundering work clothes contaminated by beryllium or asbestos dust.

A 1971 British study revealed high dust concentrations when laundry workers shook out and sorted soiled laundry from local pottery-making factories. The author recommended either directly loading the dusty overalls into washing machines without shaking them, or dampening them before handling.



OSHA standards require clothing worn by workers handling certain cancer-causing substances to be laundered commercially. This protects home launderers, but still leaves commercial laundry workers at risk. Commercial laundry workers should request information about the necessary protective precautions for handling such garments. The OSHA asbestos standard requires employers to explain the hazards of asbestos exposure to whoever does the laundering. Disposable work clothes would be most desirable on jobs where clothing could be contaminated.

DRYCLEANERS

The most serious hazard facing drycleaners are the solvents used in the drycleaning operation. *Perchloroethylene* is used by 70 percent of the modern plants; *petroleum solvent* (also called *naphtha* or *Stoddard*) is used by 27 percent; *fluorocarbon* is used by 3 percent. *Trichloroethylene*, recently shown to cause cancer in animal tests, is also occasionally used. These solvents, especially *naphtha*, are also flammable.

Continued on next page



The widespread use of perchloroethylene ("perc") is cause for the greatest concern. At concentrations above 300 ppm, a person can become dizzy, giddy, sleepy, and nauseous, lose coordination, and suffer eye and throat irritation. Extended exposure can cause fainting and death. Liver damage has also been reported among some exposed workers. The National Cancer Institute is now completing studies to determine whether "perc" can cause cancer.

The OSHA standard for exposure to "perc" is 100 ppm, averaged over eight hours; no one may be exposed to levels over 300 ppm for more than 5 minutes during a 3-hour period. An industry survey, however, discovered that peak levels over 100 ppm were common in many plants. Levels at one plant surveyed frequently exceeded 600 ppm. "Perc" spills are particularly dangerous. NIOSH estimates that spilling two tablespoons of 'perc' in a 10' x 10' closed room can cause an air concentration of about 300 ppm.

To protect workers from solvent exposures, drycleaning plants should be equipped with air blowers which constantly change the air. Equipment should be checked periodically for leaks. Solvent vapors can be contained by specially designed drycleaning machines or can be captured by vapor absorbers. Recovering solvents is economical for industry—and also protects workers.



Betty Medsger © 1975 from *Women at Work*

This article is adapted from *WORKING FOR YOUR LIFE: A WOMAN'S GUIDE TO JOB HEALTH HAZARDS*, a 200-page handbook for woman workers. Order from LOHP: \$8.00—institutions and professionals; \$5.00—others.

Since May, 1976 Allied Chemical Corp., along with the City of Hopewell, Va. and Life Science Products Company, has been indicted by federal grand jury on 1096 misdemeanor and criminal counts. The charges—violating federal water-pollution-control laws, and conspiring to defraud the Environmental Protection Agency (EPA) and the Army Corps of Engineers. Also indicted on the latter charge were 4 individuals. Both Life Science and Allied allegedly dumped the pesticide Kepone into the James River and Hopewell's sewer system. Resulting fines could total \$17 million for Allied, \$3.8 million for Life Science, and \$3.9 million for the city of Hopewell. Hopewell has already paid \$10,000 in fines for 10 misdemeanor counts.

In early August 1976, 2 persons indicted for misdemeanor in the case pleaded no contest. They were: a technical director of Allied's Hopewell plant, and the former plant manager (now co-owner of Life Science). The technical supervisor admitted he knowingly falsified an EPA discharge permit application for Allied late in 1973. Both agreed to co-operate with federal prosecutors in the case. The August 18, 1976 *Wall Street Journal* speculated that this turn of events might "increase pressure on Allied to settle the charges against it."

Allied Pleads No Contest to Misdemeanor Charges

In a surprise move, on August 19, 1976, Allied pleaded no contest to 940 misdemeanor counts of violating federal water-pollution-control laws before 1974. Sentencing is deferred until after the September-scheduled trial on the conspiracy charges.

However, the conspiracy and fraud cases currently before the grand jury are unrelated to allegations that Allied is responsible for Kepone-related illnesses afflicting some 75 former Life Science employees. In 1973 Allied turned over Kepone production to Life Science under a tolling agreement, whereby Allied paid Life Science a per-pound fee and continued to market the pesticide. Life Science shut down last year after it was discovered that many employees were suffering disabling Kepone-related symptoms, including tremor and "shakes," weight loss, memory loss, sterility, and evidence of the pesticide embedded in some exposed workers' brains.

In January 1976, a House Subcommittee on Manpower, Compensation, and Health and Safety hearing estab-



lished that: (1) Allied had done extensive research on Kepone's toxicity before beginning production in 1966—two reports transmitted to the federal government in 1961 and 1962 suggested Kepone might cause liver cancer (since proven for laboratory animals), (2) Life Science employees were never told of Kepone's potential hazards, and (3) Allied was aware the Life Science plant was so sloppy that acute effects from massive doses of Kepone were inevitable. The hearing also disclosed that Allied taught Life Science to vent chemical-filled tank cars at night, presumably to get around the Clean Air Act.

Allied and Life Science Deny Wrongdoing

Throughout, Allied has denied any wrongdoing, asserting it didn't have any control over Life Science's actions. A statement released by Allied's corporate headquarters in Morristown, N.J. disclaimed all responsibility for the afflicted Life Science employees, and for widespread contamination of Hopewell, its surroundings, and the James River. The statement said, "the scope of the criminal actions was unwarranted and unprecedented."

Life Science's co-owners have also generally denied any wrongdoing. Both owners were employed by Allied's Hopewell plant—as plant manager and chemist—during the development and early production of Kepone. Both owners have claimed ignorance of Kepone's toxic effects, although in a CBS "60 Minutes" interview, an Allied spokesman asserted the chemist owner is the world's Kepone expert.

Meanwhile, litigation is still pending on a \$29 million law suit against Allied filed by 12 former Life Science employees.



In Long Beach, Ca., Johns-Manville asbestos workers protest the corporation's refusal to negotiate medical contract clause.

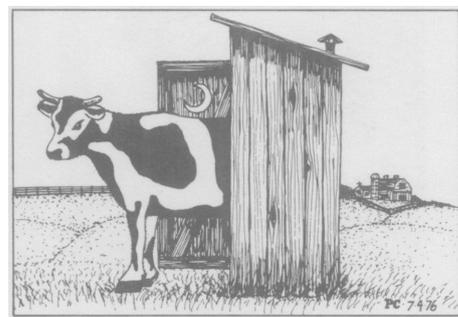
Farmers Raise Stink Over Outhouses

Washington

Some farmers are outraged at federal OSHA's "privy-on-the-prairie" proposal requiring them to provide toilets, washing facilities, and drinking water within a 5-minute walk of all field workers. (California regulations already require some sanitation facilities for farm workers.) Since the proposal was made last April, OSHA has received nearly 100 letters, mostly from farmers, complaining of cost, impracticality, worker laziness, and enforcement difficulties.

Under the current proposal, employers would have to provide: One toilet facility (located within a 5-minute walk of each employee) for every 40 workers or transportation to a facility for crews of 5 or less; toilet paper on holders; disposable towels; soap; door latches; guide signs in as many languages as necessary; and drinking water dispensed by either a drinking fountain or gravity tap.

As one farmer from Coconut Grove, Florida wrote, "these proposed standards only give a worker another excuse to be goofing off while on the job, and will not provide any real benefit



New Times

Rites for Asbestos Victims

On June 28, 1976, workers from the Johns-Manville asbestos plant walked off the job and stood around a coffin in memory of 12 workers who had died within the previous 14 months. The workers ranged from 32 to 64 years old. Participants in the combined service/demonstration also included Johns-Manville workers from other California plants and union leaders from as far away as New Jersey.

According to Leonard Perryman, president of Local 255 of the International Chemical Workers Union, many Carson plant workers and their families are frightened and increasingly angry "about the corporation's refusal to negotiate a medical contract clause

protecting plant workers against asbestos cancer."

The company claims its medical evaluation of the workers was adequate. The manager of the Carson plant accused the union of "attempting to involve public emotion in an issue already resolved in order to gain further concessions at the bargaining table." However, the union says the only issue resolved is that asbestos is hazardous to its workers' health. Asbestos exposure is particularly serious because the diseases it causes—lung cancer, asbestosis, mesothelioma (a rare cancer affecting the linings of the chest or stomach)—often do not appear for 20 to 30 years, when it's too late to do anything about those diseases.

New York Times

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LOHP FILM RELEASED

Working Steel, a 20-minute documentary about foundry workers, has been recently released by the Labor Occupational Health Program. Of the film, one reviewer, Charles Brook, Assistant Director, National Foundry Division, United Auto Workers, Detroit, says: "I hope it receives the widest possible distribution, even outside the metal-working industry because it deals with principles of occupational safety and health common to many industries."

The film eloquently describes the hazards that make foundry work one of the most dangerous industries in America.

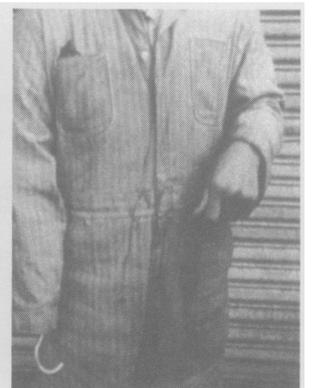
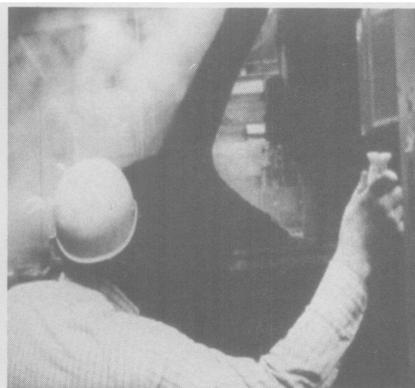
Working Steel is seen through foundry workers' eyes. The film was shot at several West Coast foundries by two independent film makers, Ken Light and Charles West. Ken Light is a freelance still photographer; Charles West is a freelance writer. The workers appearing in the film spent lunch and

breaks discussing their foundry experiences with the film makers. One worker who lost his hand in an unguarded conveyor belt many years ago, says, "this would never have happened had the belts been covered like they should have been." Another worker from the grinding room says, "I've seen several people get killed. I've seen them get killed by grinding, stuff like that. Rock busted on a swing grinder, pinched them in the stomach, killed them dead."

The film officially opened on July 15 at the Sunset Theater in Berkeley, and is now available for rental or purchase. The opening was attended by Bay Area health and safety persons, Cal/OSHA officials, union members, media persons, and workers who had participated in the film. To rent or buy the film, order from: LOHP Films, Institute of Industrial Relations, 2521 Channing Way, Berkeley, Ca. 94720. Rentals are \$30. Sale prints are \$175 each. Allow at least 30 days to fill your order.



Ken Light, foundry workers, and guests at LOHP film opening.



Photographs Working Steel, © 1976

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DOCTOR'S CORNER

by Donald Whorton, M.D.

Dear Doc:

I work in a bakery that is unusually dusty due to flour dust. Is this dust harmful?



In more modern bakeries, automated processes usually reduce the amount of flour escaping into the air. However, many bakeries are still quite dusty. Unless they are somehow protected, bakery workers in dusty areas are forced to breathe in quantities of the dust.

Flour dust can cause sinus problems, a chronic runny nose, or an asthma condition in workers. These conditions are caused in part by the allergic action of the dust and in part by the mechanical action of the dust particles in contact with the sensitive lining of the nose, throat, and lungs. There is also an individual susceptibility factor; not all workers will develop these problems. Those with past histories of allergic problems are more likely to be affected than are those with no such histories. However, this does not mean that only those with allergic histories will be affected.

Sinus problems cause headaches and pain over the sinuses. Often this means pain in the front of the face and around the bony structure that protects the eye. The headache is often worse in the morning and improves during the day as standing upright allows the fluid build-up in the sinuses to drain. This can also lead to constant swallowing of this mucus and irritation of the

back of the throat. Some people can develop a constantly runny nose without the other problems associated with sinus problems.

Asthma is a condition of the lungs in which the airways become smaller and less air is able to pass into and out of the lungs. Breathing becomes very difficult. Individuals with asthma have "attacks" on a periodic basis; usually, some dust, chemical, etc. causes the attack. In the case of bakery workers, the flour dust can "trigger" the attack. Repeated asthma attacks can lead to the development of chronic debilitating lung disease. This would take years to develop.

Flour dust can also irritate the skin and produce skin rashes especially on the parts of the body most exposed to air and dust—the arms, face, neck, and hands. Again, like the sinus and lung problems, not all workers will be affected. In order for the skin to heal properly, the worker usually has to be removed from the offending dust. After the skin heals, the worker must be protected from the dust so that the rash does not return.

The best method for treating the hazards due to flour dust is to control dust levels in the workplace. Adequate ventilation and good housekeeping practices can effectively reduce dust levels, as can modernized processes. Persons with previous allergies should be aware of the dust's allergy-causing potential.

A safety hazard from flour dust is explosion. Although this hazard is more commonly associated with milling operations, it could occur in a bakery.

Requests for information on your work problems should be addressed to: Dr. Donald Whorton, LOHP, 2521 Channing Way, Berkeley, CA 94720.

to the worker. At the present time, no one is permitted to use the sanitary facilities here during working hours as this cuts down on their production and amounts to a monumental waste of time. New employees are permitted to use the facilities *until they train themselves so bowel movements take place out of working hours.*" (Italics added.)

Another farmer complained the proposal would bankrupt her sixty-acre farm because, "a waterwell would have to be drilled for each facility, and each facility heated to insure against freezing during the winter."

Faced with this outhouse impasse, OSHA officials concede changes in the standard will be made. "I think it will have to be modified," said an OSHA agricultural safety specialist. He added, however, that some regulation is necessary because not everyone takes care of workers.

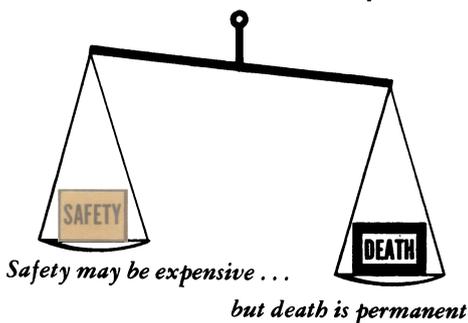
Associated Press

Two California Companies Fined For Workers Deaths

Stolte, Inc. was fined \$7500 in Los Angeles city court for the death of 37-year-old Jose Franco in a construction accident. The foreman was also fined \$650 for "knowingly or negligently failing to provide immediate supervision at a foundation excavation in order to modify work methods as necessary to provide greater safety and to protect employees from danger." Franco had been working alone in an excavation when a section of 15-foot-high earth collapsed and buried him. Alleged violations were of Labor Code Sections 6425, 6423 (a), and 1540 (a) of Title 8.

After pleading *no contest*, SGV Rental Corp. of Ventura was fined \$625 for the death of 21-year-old George V. Tyberg, Jr. While Tyberg was inflating a small tractor tire onto a drop-center type rim, the tube exploded, sending the tire and rim into Tyberg's face. The corporation was charged with violating California Labor Code, Section 6423(a), and General Industry Safety Order Section 3325(a).

Cal/OSHA Reporter



Testing Replacements for Known Carcinogens

On June 13, the National Cancer Institute (NCI) warned industry not to replace known carcinogens (cancer-causing substances) with untested compounds since the substitutes might be even more hazardous. The warning accompanied an NCI report confirming that the common industrial solvent trichloroethylene (TCE) causes liver cancer in mice. TCE has also been used to extract caffeine for decaffeinated coffee. When TCE was linked with animal cancer earlier this year, coffee manufacturers substituted methylene chloride in the decaffeinating process.

California Legislation to Reduce Heart Compensation

The California Assembly Finance, Insurance and Commerce Committee has just approved legislation that would reverse a 1973 California Supreme Court decision. Under the decision, retired firefighters' and peace officers' heart conditions are assumed job-related and fully compensable. The new bill (SB 839) would limit compensation to 3 months for each full year of service, or a maximum of 5 years for 20 or more years of service. If you're interested in more information on this bill, write State Capitol, Sacramento, California 95814.

DIS Cracks Down on Carcinogen Users

Recently, Art Carter, Chief of the State Division of Industrial Safety, announced a "crackdown" on employers either not reporting their use of cancer-causing chemicals (carcinogens) or not establishing required safeguards. State law requires employers using any of 14 cancer-causing chemicals (plus asbestos and vinyl chloride) to immediately report to the Division of Industrial Safety (DIS) or be fined. Of the perhaps 4,000 to 6,000 estimated carcinogen users in California, only 21 have so far reported. Penalties for willful and repeated violations of the law can range to \$10,000.

Many of the 14 carcinogens are used in the rubber, plastics, oil, dry cleaning, and chemical industries. Workers doubting the adequacy of safeguards against cancer-causing substances in their workplaces can request an investigation. Write: State Division of Industrial Safety at 1540 Market St., San Francisco 94102 or 3460 Wilshire Blvd., Los Angeles 90010.

Meanwhile, Senator Arlen Gregorio's amended carcinogen bill has just passed the California Assembly Permanent Subcommittee on Industrial Safety. (It passed the Senate in June 1976.) The bill would create a \$1 million federal and state-funded enforcement program—\$250,000 for a media campaign, \$675,000 for self-initiated studies, and \$75,000 for DIS administrative expenses. In addition, it would: (1) allocate 25 percent of the State Department of Occupational Health's resources to the program, (2) require employers to pay a \$25 to \$500 annual inspection fee, and (3) set a minimum penalty for violations. To prevent a possible governor's veto, the bill was amended to "dovetail" into Cal/OSHA instead of setting up a separate mechanism.

Carcinogens Covered by Cal/OSHA

Benidine (and salts)—used to produce dyes, rubber, fire-proofing materials, plastics, and printing inks.

Alpha-Naphthylamine—used to produce food-color dyes, paints, plastics, rubber, and petroleum.

4,4-Methylene bis (2-Chloronaline), known as MOCA—a plastics-resin-curing agent used in products ranging from aircraft components to skateboard wheels.

2-Acetylaminofluorene

4-Aminodiphenyl

3,3'-Dichlorobenzidine (and salts)

4-Dimethylaminoazobenzene

beta-Naphthylamine

4-Nitrobiphenyl

N-Nitrosodimethylamine

beta-Propiolactone

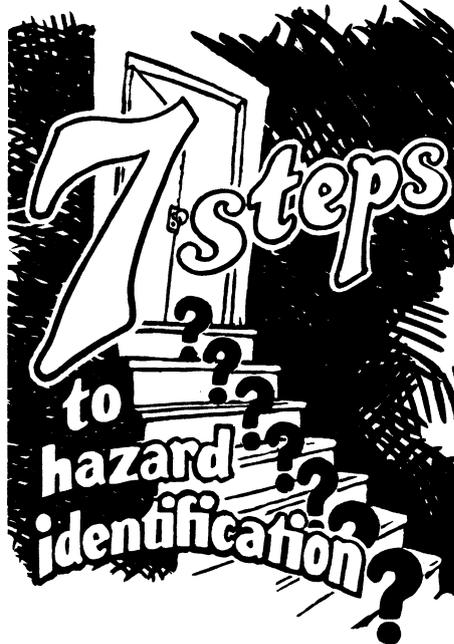
bis-Chloromethyl ether

Methyl chloromethyl ether

Ethyleneimine

CLEARINGHOUSE

New LOHP Publication



"7 Steps to Hazard Identification" by Robert Fowler, a workbook for recognizing the dangers on your job, is now available from LOHP. Topics include: Obvious Hazards; Hidden Hazards; and Questionable Hazards. To order, write: LOHP Publications, 2521 Channing Way, Berkeley, California 94720. (Workbooks are \$1.00 per copy)

IAM Publishes Book on Occupational Hazards

Help for Working Wounded by Thomas F. Mancuso, M.D., focuses on the occupational health hazards—chemicals, dusts, fumes, mists, gasses, and noise—that cripple and kill more and more workers every year. The union-published book is based on real questions asked by members. Topics covered include: recognizing an occupational illness; occupational exposure—how much is enough; control measures; and worker's compensation. To order, send \$1.00 per copy (\$75.00 for 100 copies) to IAM Public Relations Department, 909 Machinists Building, Washington, D.C. 20036. Make checks payable to the IAM.

Critique of OSHA Act

As an attempt to evaluate OSHA's effectiveness to date, author Dr. Robert S. Smith poses the following questions in *The Occupational Safety and Health Act: Its Goals and Achievements*: 1) To what degree should the federal government attempt to regulate safety and health provisions; 2) Is there a clearly demonstrated need for the law; 3) What criteria should guide OSHA's standards-setting procedures; 4) Has OSHA had an impact on

injury rates; and 5) Could the government use alternative methods to improve safety and health? To order, send \$3.00 to: American Enterprise Institute for Public Policy Research, 1150 Seventeenth St., N.W., Washington, D.C. 20036.

Nuclear Power's Impact on the Environment

An Environment Reader on Nuclear Power, *Nuclear Power: Economics and the Environment*, is now available from the Scientists' Institute for Public Information. Discussed in detail are issues that have surfaced during the current argument about energy policy—safety, environmental protection, and economic viability. To order, send \$2.00 per copy (or \$1.75 per copy for bulk orders of 10 or more) to Scientists' Institute for Public Information, 6052 Claremont Avenue, Oakland, CA 94618.

Cal/OSHA Health and Safety Seminars

Cal/OSHA is offering free health and safety seminars in conjunction with the San Diego Community College District. The seminars will cover: Cal/OSHA—its purpose and scope; employer and employee responsibilities; safety orders/standards (agriculture-construction-general industry); health and safety programming; voluntary compliance procedures; and record keeping and appeal procedures. Programs are primarily for employees, labor representatives, and management from small and medium-sized agricultural, business, construction, and industrial firms.

Seminars last from 8 am to 5 pm:

September 11—Agriculture/Gen. Ind. Monterey Peninsula College Lecture Forum 101, 980 Fremont Blvd., Monterey, Ca. 93940

September 14—Agriculture/Gen. Ind. Cuesta College, Camp San Luis Obispo, Auditorium, San Luis Obispo, Ca. 93406

September 15—General Industry Santa Barbara City College, Board Room, Administrative Building, 721 Cliff Drive, Santa Barbara, Ca. 93106

September 20—Agriculture/Gen. Ind. Fresno City College, Cafeteria, 1101 E. University, Fresno, Ca. 93728

September 21—Agriculture/Gen. Ind. Merced County Department of Education, Conference Room, 632 D. 13th St., Merced, Ca. 95340

September 22—Agriculture/Gen. Ind. Bakersfield College, Conference Center, 1801 Panorama Drive, Bakersfield, Ca. 93305

Either register the day of the seminar by appearing in class, or register ahead of time by writing: REGISTRAR, CAL/OSHA TRAINING PROGRAM, San Diego Community College District, 3375 Camino del Rio South, San Diego, Ca. 92108 (714-280-7610, ext. 185).