

WOHRC NEWS

WOMEN'S OCCUPATIONAL HEALTH RESOURCE CENTER

First Statewide Day Care Program Started

New York and employee unions establish onsite centers for working mothers.

A pioneering venture in day care by New York State and public service unions is being watched with interest by those concerned with the stress caused to women by dual roles as workers and mothers.

In the first such statewide arrangement in the country, New York, acting as an employer, has agreed to cooperate with employee unions in setting up 23 onsite day care centers in state facilities, such as hospitals, psychiatric centers and office complexes. The centers will care for the children of state employees while their parents are at work. The employee unions and the state have joined in supplying funds to open the centers, while the state provides the space.

The centers will be planned and administered by boards that include representatives of the state, the unions, community day care specialists and the parents themselves.

The unions involved are the Civil Service Employees Association (CSEA), the New York State Public Employees Federation (PEF) and PEF's parent union, the Service Employees International Union (SEIU). The idea of the centers was written into a CSEA contract in 1972, but was first put into effect in 1979 when the unions made funds available and a demonstration day care center was set up in Albany.

Since then some 11 centers have been planned and are waiting for final state approval and funding. Organizing committees are working in at least 12 more locations throughout the state. Each center will serve about 40 children.

In order to receive funds, committees must be formed of labor and management representatives, as well as interested community organizations. Each must complete a needs survey.

The fees at the model center now operating in Albany are charged on a sliding scale, depending on income. They range from \$42 to \$58 per week per child, which is lower than the average for similar facilities in the community. The center now serves 102 children from 8 weeks to 5 years old.

Molly Hardy, the director, who also acts as a consultant to other committees setting up centers, reports that the greatest demand is for infant care. She now cares for 18 infants, although there is a waiting list of 200.

The Empire State Day Care Services Corporation, as the Albany center is known, has a Parents Advisory Committee which sets fees and budget.

The center is particularly proud of its breast-feeding program, which enables mothers who work in the vicinity to drop in and feed their infants during the day.

"But in general, the fathers visit more



This preschooler is one of 102 now attending the first state sponsored center in Albany.

frequently than the mothers," reports Ms. Hardy. "They come in at lunchtime and take the older kids for a walk."

Meyer S. Frucher, the state's director
continued on page 4

SPERM COUNT

Occupational health advocates will be interested in two recent reports from the *New England Journal of Medicine* which provide further evidence that chemicals interfere with male reproductive ability.

One showed that men injected with a synthetic analog of gonadotropin-releasing hormone (LHRH) experienced impotence and that their sperm density and motility fell dramatically. At the end of the exposure, density returned to normal.

Another showed that chemo-

therapy drugs used in treating childhood leukemia temporarily impaired spermatogenesis. Cited particularly were the alkylating agents cyclophosphamide, chlorambucil and mechlorethamine and the methylhydrazine procarbazine. The boys treated returned to normal, however, when use of the drugs was halted.

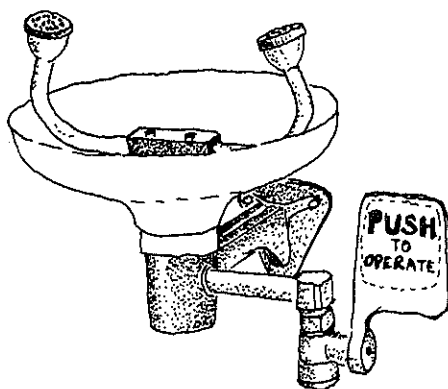
This box contains periodic reports showing that toxic chemicals in the workplace and environment affect male as well as female reproductive capacity. Contributions from readers are welcome.

A Safety Checklist for School Science Labs

WOHRC offers some tips for preventing serious accidents.

Recently, a building at Rutgers University was closed because its science laboratories are suspected of being linked with an undue number of cancers and other illnesses among the building's occupants.

The incident pointed up a dangerous situation that can and may exist at many school laboratories. Recently WOHRC investigated those in high schools and found a significant number of toxic chemicals, often handled without adequate safety provisions. A list of such chemicals found in a similar survey by the federal Consumer Product Safety Commission appears here.



Margaret Desmond

Besides noting that some are carcinogens, some teratogens and some both, the CPSC reported some 3,000 school lab injuries during the 1978-79 school year. Most involved chemical burns from acids and alkalis; others, chemical dermatitis reactions and cuts from broken glassware.

The WOHRC investigation also found:

- 73 percent of teachers reported that laboratories have inadequately ventilated hood space in which students can work;
- about 50 percent need more supervision of students during lab activities;
- 63 percent do not keep an accident log;
- 56 percent do not have adequate audio vis-

tures so arranged as to shield both pupils and teachers from the results of the explosion?

6. Even when there is no likelihood of an explosion, are pupils asked to evacuate seats directly in front of the demonstration table to avoid splattering or inhalation of fumes?

7. When flammable volatile liquids such as alcohol are used in a demonstration are all ignition sources removed from the classroom?

Student procedures



1. Do students report all accidents to the teacher, no matter how minor?

2. Are students prohibited from studying, working or experimenting without competent supervision?

3. Do students (and teachers) take care never to eat, drink or smoke in the laboratory?

4. Are students warned not to taste or touch chemicals with their hands?

5. Are gloves worn when handling some reagents, and hands kept away from the face?

6. Are hands washed thoroughly with soap after each laboratory period?

7. Do students avoid wearing long, hanging necklaces and bulky jewelry?

8. Do they roll long sleeves above their wrists and remove ties, coats and sweaters?

9. Do they tie back long hair?

10. Do students take care always to remain at their stations during an experiment?

Housekeeping



1. Do teachers regroup or remove accumulated materials that may become hazards?

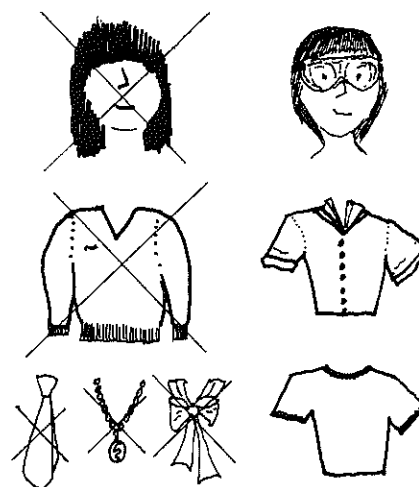
2. Are floors kept clean and uncluttered?

3. Do students always clean, and wipe dry, all desks, tables and work areas at the end of each lab activity?

4. In disposing of waste, do teachers take care of dangerous materials in accordance with

into the ground away from the school?

10. What happens to over-age or surplus chemicals which, because of toxicity, pollution potential or explosion danger, cannot be disposed of easily? Are they reported to the department chairperson and/or the appropriate agency?



Margaret Desmond

Storage



1. Are combustible and dangerous materials kept securely locked in a safety cabinet?

2. Are acids stored in approved cabinets or closets, off the floor and below the height of the person who has access to them?

3. Are students forbidden access?

Labelling



Are all chemicals labelled with the following information:

1. name and formula?

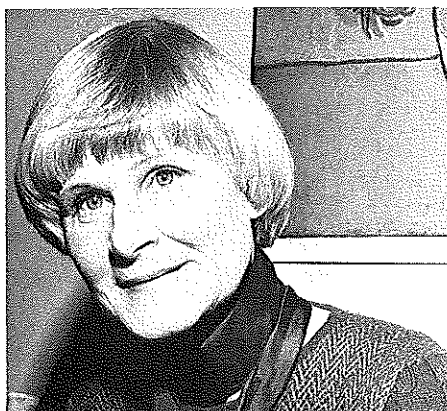
2. degree of hazard denoted by the word DANGER or WARNING or CAUTION?

3. description of the particular hazard, such as POISON, CAUSES BURNS, FLAMMABLE, VAPOR HARMFUL?

4. precautionary measures, such as: *Keep away*



Swedish Stress Expert Speaks at Columbia



Harald Borgstrom

Dr. Marianne Frankenhauser, who is renowned for her studies of stress among workers, was a recent visitor.

Dr. Marianne Frankenhauser, a Swedish psychologist renowned for her studies of stress among working people, recently visited Columbia University and discussed some of her work.

Dr. Frankenhauser described the differences she found among certain hormone levels in men and women in various occupations. More "stress hormones," such as adrenaline and cortisol — which are often linked to heart attacks and strokes — were found in the blood of workers whose jobs demand high output but who have little control over their work. Assembly-line workers were typical of these, but high stress hormone levels were also found among people who do extensive computer work.

Dr. Frankenhauser's findings also suggest that job stress can invade leisure time. She found that after hours, stress hormones took longer to return to normal levels in assembly workers, "unskilled" computer operators and in female office workers.

Also interesting were the Swedish psychologist's discoveries about the differences in responses to stress between the two sexes. Previous studies have suggested that men had higher adrenaline levels than women. But when Frankenhauser studied women in traditionally "male" roles and men in traditionally "female" roles, the differences were less marked. This suggests that the higher

rate of cardiovascular disease in men may be more due to environmental than genetic factors.

Dr. Frankenhauser's findings about the relationship of stress to control over the job buttress similar discoveries by Columbia University researcher Dr. Robert Karasek (see WOHR NEWS, September/October 1981).

—Susan Klitzman

Swedes Study Effects Of Computerization

Another recent Swedish visitor to the Resource Center was University of Stockholm sociologist Dr. Gunilla Bradley, a researcher on the effects of computerization on working life.

Like researchers in this country, she found that users of data processing terminals experience the work pace as more irregular, impersonal and demanding than other workers. Swedish studies also found a feeling of heightened conflict between home and work pressures, especially among those who spend the most time with the terminals.

She suggested an action program in which management and union representatives would further study the effects of computerization and work out methods to reduce the stress it causes.

— Barry Snow

BOOKS

Office Worker's Survival Handbook: A Guide to Fighting Health Hazards in the Office, by Marianne Craig, British Society for Social Responsibility, London, 1981.

by Mary Sue Henifin

File clerk, typist, receptionist, or "temp" . . . most women have worked as office workers at some point in their lives. Individual women have long been aware of their aching eyes, necks, backs and heads after a day of office work, but there has been little public recognition that such symptoms can be caused by unhealthy working conditions. That is changing as more women talk to each other.

As a result occupational health specialists and trade unions are beginning to recognize these health hazards.

As the title suggests, this is a book about prevention. Written in a nontechnical style, it helps workers to identify office hazards and develop strategies to deal with them. Checklists at the end of

each chapter summarize what to look for. The author, a member of the Women and Work Hazards Group of the BSSR, brings together an impressive amount of history and scientific research as well as experiences gathered from trade unions and individuals.

In a chapter entitled "Sitting, Standing and Straining," for example, an office temp talks about the most common and most frequently inadequate piece of office equipment, the chair:

Often they look right and are theoretically adjustable, but they won't move. Yet temps have to adjust them all the time. Also some of the backrests are hopeless. You sit forward, typing in a hurry, and you don't notice you are off the backrest. In the place I'm in now — a plastics firm — the typist's chair is an ordinary dining room chair! My back's killing me right now!

Although the book focuses on British workers and health laws, it contains much valuable information on scientific research and model health legislation in other countries. It cites, for example, Norway's Work Environment Act which states:

Employees shall be afforded opportunities for personal development and the maintenance and development of their skills. Monotonous, repetitive and machine or assembly work that does not permit alternation of pace shall be avoided. Jobs shall be designed to allow some possibility for variation, for contact with other workers . . .

Other chapters provide information on noise, lighting, temperature and ventilation, dangerous chemicals, stress, VDTs, and even childcare, restroom and eating facilities and the problem of sexual harassment. Photos, cartoons and illustrations capture the spirit of the text. As the title says, this is a survival handbook.

Copies may be obtained from the Trade Union Book Service, 265 Seven Sisters Road, London N4, England. The price is £2.35 or \$4.34. □

Risks a la Carte, a handbook about safety hazards in the hotel and catering industry, has just been published by the General and Municipal Workers Union of Great Britain. The 39-page handbook is written for the use of safety representatives of the newly formed Hotel and Catering Workers Union, a subsidiary of the GMWU. It covers such topics as food hygiene, chemicals and asbestos, fire, lifting, lighting, noise and the dangers posed by many kinds of machinery and equipment.

Indoor Air Pollution Report Cites Many Common Substances

Although much remains to be learned about indoor air pollution, such contaminants as tobacco smoke, formaldehyde, carbon monoxide, nitrogen dioxide and air-borne bacteria and allergens have been known to significantly affect human health, according to a report published last fall by the National Academy of Sciences.

Even such commonplace procedures as home heating and cooking can produce enough nitrogen dioxide to be harmful, said the report which was prepared by a committee of leading scientists and engineers. "Some studies have shown an association between gas cooking and the impairment of lung function in children," the committee noted, while gas cooking appliances are also sources of carbon monoxide, carbon dioxide, formaldehyde, hydrogen cyanide and other irritating vapors and particles.

Danger from garages

The committee also warned of the hazards of carbon monoxide entering apartment and office buildings from underground garages, and noted that improper ventilation could have an effect on the number of infection-causing bacteria and allergens in the air.

Although the constituents of tobacco smoke are known to be very hazardous, the report noted, "virtually every member of our society" is exposed to it: "33 percent of the population smokes, and the rest are exposed to the smoke released by others." It strongly recommended that involuntary exposure to tobacco smoke be avoided by the prohibition or restriction of smoking in public places.

Proper ventilation can greatly reduce the harm by gas cooking fumes, carbon monoxide and airborne microorganisms, said the scientists. They also recommended:

Scientists' recommendations

- A "staged assessment" of the dangers of indoor pollutants to the general population by federal agencies;
- the development of better monitoring instruments and regulations to investigate indoor environments;
- study not only of major health-threatening pollutants, such as those mentioned above, but of "low-level acute and chronic complaints of malaise, headache, stuffiness and eye and throat

irritation" often reported in large buildings;

- special consideration of construction practices and materials, such as those that give off formaldehyde fumes;
- evaluation of consumer products used in the home, such as pesticides.

The 537-page report, entitled *Indoor Pollutants*, was sponsored by the Committee on Indoor Pollutants, the Board of Toxicology and Environmental Health Hazards, the Assembly of Life Sciences and the National Research Council of the National Academy of Sciences. It was prepared for an international symposium held last fall at the University of Massachusetts. Copies are available at \$16.25 apiece from the National Academy Press, 2101 Constitution Ave. NW, Washington, D.C. 20418. □

Legal Battle Looms Over Formaldehyde Insulation Ban

A legal battle is taking place in Massachusetts over the state's ban on urea formaldehyde foam insulation in buildings. The state was the first government to halt use of the insulation on the grounds that it can release enough formaldehyde fumes to cause serious respiratory problems.

This January, after challenges by manufacturers, Judge John Ronan of the State Superior Court ruled that the ban should be lifted. The judge questioned both the facts and the procedures that had brought it about. However, the State Department of Public Health has succeeded in winning a stay of the ruling and is appealing the decision.

The Massachusetts ban was first imposed by State Commissioner of Public Health Dr. Alfred Freshette in 1979. The Connecticut state legislature and the Canadian federal government have since followed suit. A Canadian panel of experts reported last year that the insulation, which is injected into walls under pressure, is basically unstable and can, in certain circumstances, deteriorate.

Editor's Note: As we went to press, the federal Consumer Product Safety Commission banned the sale of urea formaldehyde foam insulation in the U.S.

Day Care, continued from page 1

of employee relations and its principal negotiator for the day care centers, is an enthusiastic supporter of the concept.

"From the employer's viewpoint," he says, "onsite day care gives the state an advantage in recruiting and retaining employees. All too often, competent and trained women leave the work force after childbirth because they can't locate suitable child care.

"Employer sponsored child care," he believes, "is no longer a frill but a necessity." □

For more information contact Molly Hardy, executive director, Empire State Day Care Services Corporation, P.O. Box 2021, Empire State Plaza, Albany, N. Y. 12205, (518) 473-8714.

National statistics gathered by the AFL-CIO indicate a marked drop in inspections and citations by the U.S. Occupational Safety and Health Administration during the Reagan Presidency.

A breakdown of figures for February-September, 1981, as compared with those for January-October, 1980, shows that fewer inspections are being conducted; fewer inspections are resulting in the discovery of violations; and the number of violations cited has decreased.

The statistics also show that fewer complaints are being filed by workers, evidently because they do not expect a sympathetic response.



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(Subscription information on page 6.)

HAZARDS OF CHEMICALS

In the interests of better safety for both teachers and students, WOHRC presents the following checklist:

The working environment

1. Does each laboratory have at least 100 foot-candles of diffused light?
2. Do laboratories give each student a minimum workspace of 35 square feet?
3. Does each laboratory have two unobstructed exits, not near each other and opening onto a main passage or the outside of the building?
4. Are lab table tops constructed of noncombustible material?
5. Are there master shut-offs for gas, water, electricity and other services?

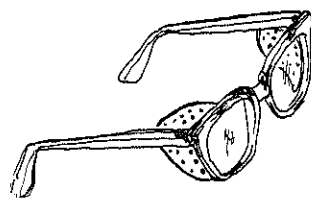
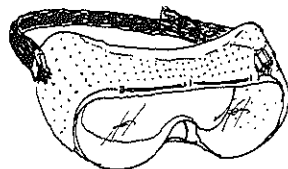
Laboratory equipment

Do you have available:

1. properly sized fume hoods and/or exhaust fans to remove noxious or toxic fumes?
2. fire extinguishers that are regularly inspected and appropriate to the type of fire that may be anticipated?
3. safety showers in areas where hazardous chemicals are used?
4. a face and eye shower?
5. adequate storage and supply space?
6. a first aid kit plus a copy of the Red Cross manual *Standard First Aid and Personal Safety*?
7. metal or earthenware waste jars?
8. sand, fire blanket, vermiculite, bicarbonate of soda and the like in case of fire or spills?

Teaching procedures

1. Are only teachers qualified to teach science assigned to science classrooms?
2. Do all teachers have Red Cross certification in First Aid?
3. Before class, does each teacher rehearse actual procedures of experiments and demonstrations to make sure that all apparatus works properly and that safety precautions are adequate?
4. Are sets of safety rules posted in several places around the room and discussed with students?
5. Are demonstrations involving explosive mix-



5. Do solid wastes have separate receptacles for those that are flammable?
6. Is there a separate receptacle for broken glassware?
7. Are matches thrown into metal containers with sand in them?
8. Are corrosive or caustic liquids poured down the drain and flushed with plenty of water?
9. Do teachers and students avoid pouring flammable liquids down the drain because their vapors can accumulate in plumbing and cause an explosion? Are they, instead, collected in a safety can and, if possible, poured by a teacher

adequate ventilation?

5. instructions in case of exposure, such as: *In case of contact, flush with large amount of water?*

Eye and face protection

1. When experiments are particularly dangerous and there is not adequate protection available, are they eliminated from the curriculum in favor of controlled demonstrations and films?
2. Do students wear safety glasses with clear side shields for most laboratory work?
3. When there is danger do they wear approved chemical goggles?
4. Do they wear full face shields when working with glassware in high temperature or under reduced or elevated pressure?
5. Is the wearing of contact lenses in the laboratory strongly discouraged, unless they are worn with goggles or a face shield? Are students warned that chemicals can infuse under the lenses and cause irreparable eye damage?

Margaret Desmond

The material above was adapted from Safety in the Secondary Science Classroom published by the National Science Teachers Association.

Some chemicals are double hazards on CPSC list

Suspected carcinogens

Acetamide
Isoamyl alcohol
Aniline hydrochloride
Benzene
Benzidine reagent
Benzoic acid
Cadmium chloride
Carbon tetrachloride
Chloroform
Chromic acetate
Chromium trioxide
Colchicine
Dichloromethane
Dichlorophenol
Diphenylamine

Ethylene dichloride
Ferric oxide
Formaldehyde
Isobutyl alcohol
Kerosine
Lead acetate
Methylene chloride
Nickelous ammonium sulfate
Nickelous chloride
Nickelous nitrate
Phenol
Propanal
Pyrogallol acid
Sodium chromate
Sodium dichromate

Tannic acid
Thioacetamide
Trichlorotrifluoroethane

Suspected teratogens

Cadmium chloride
Carbon tetrachloride
Colchicine
Diphenylamine
Ethylene dichloride
Lead acetate
Lead chloride
Lead nitrate
Lithium chloride
Methyl ethyl ketone
Salicylamide

CALENDAR

July 5-21

Problems of Modernization and Occupational Health, Shanghai, People's Republic of China.

The conference is co-sponsored by the Harvard School of Public Health, Occupational Health Program, and the Industrial Health Department of Shanghai First Medical College. It will be the culmination of an industrial hygiene exchange including plant visits, meetings with trade union officials, plant managers, occupational safety and health specialists and government officials. Participants will visit five cities in China.

For further information, contact Margaret Quinn or Charles Levenstein, China Conference Coordinators, Occupational Health Program, Harvard School of Public Health, 665 Huntington Ave., Boston, Mass. 02115, (617) 491-0577.

Some VDTs Emit Radiation In Government Test

A recent study by the U.S. Bureau of Radiological Health to determine if video display terminals emit radiation found that 8 of the 125 units measured gave off detectable ionizing radiation. There is no specific federal standard for VDTs.

Although the number seems small, with at least 10 million units now in operation, it can be estimated that 6 percent emitting undue radiation corresponds to 60,000 units.

The highest amount of radiation emitted by any unit was 0.002 rem per hour. One model studied emitted a surge of radiation before it broke down, which is the kind of situation that worries occupational health specialists as well as VDT users.

The report, which was published by the Food and Drug Administration of which the Bureau is part, went on to say that some of the faulty VDTs were recalled by their manufacturers, while other producers were prohibited from introducing their units into the U.S. market. The report concluded that VDTs are not dangerous.

Copies of the report, *An Evaluation of Radiation Emission from Video Display Terminals*, can be ordered from the U.S. Department of Health and Human Services, Food and Drug Administration, Bureau of Radiological Health, Rockville, Md. 20857.

Correction: The story on the NIOSH report on the health of minority women workers in our September/October 1981 issue should have mentioned the name of the report's author, Phyllis E. Lehmann of Washington, D.C. Ms. Lehmann also contributed valuable additional research. □

ILO Issues Health Alert On Carbonless Copy Paper

The International Labor Organization has issued a health hazard alert requesting information about the effects of carbonless copy paper on eyes, mucous membranes and skin.

The ILO reported that in Sweden office workers handling the paper have reported irritations of these parts of the body, although patch tests with the paper and the chemicals used in it have not shown allergic reactions. One trade union with 120,000 members received more than 1,700 complaints in response to an inquiry to its members about the paper.

Last June, the *Journal of the American Medical Association* reported a case of allergic contact dermatitis in a clerk in a college registrar's office who used carbonless copy forms. She developed the allergic reaction only at the times of year when large amounts of the paper were used for student registration.

Earlier, University of Washington researchers had found that the paper can give off enough formaldehyde fumes to seriously irritate office workers' skin, eyes, noses and throats. (See *WOHRC NEWS*, November/December and July/August 1981.)

The ILO alert asks for further information which can be passed on to the Swedish National Board of Occupational Safety and Health. □

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