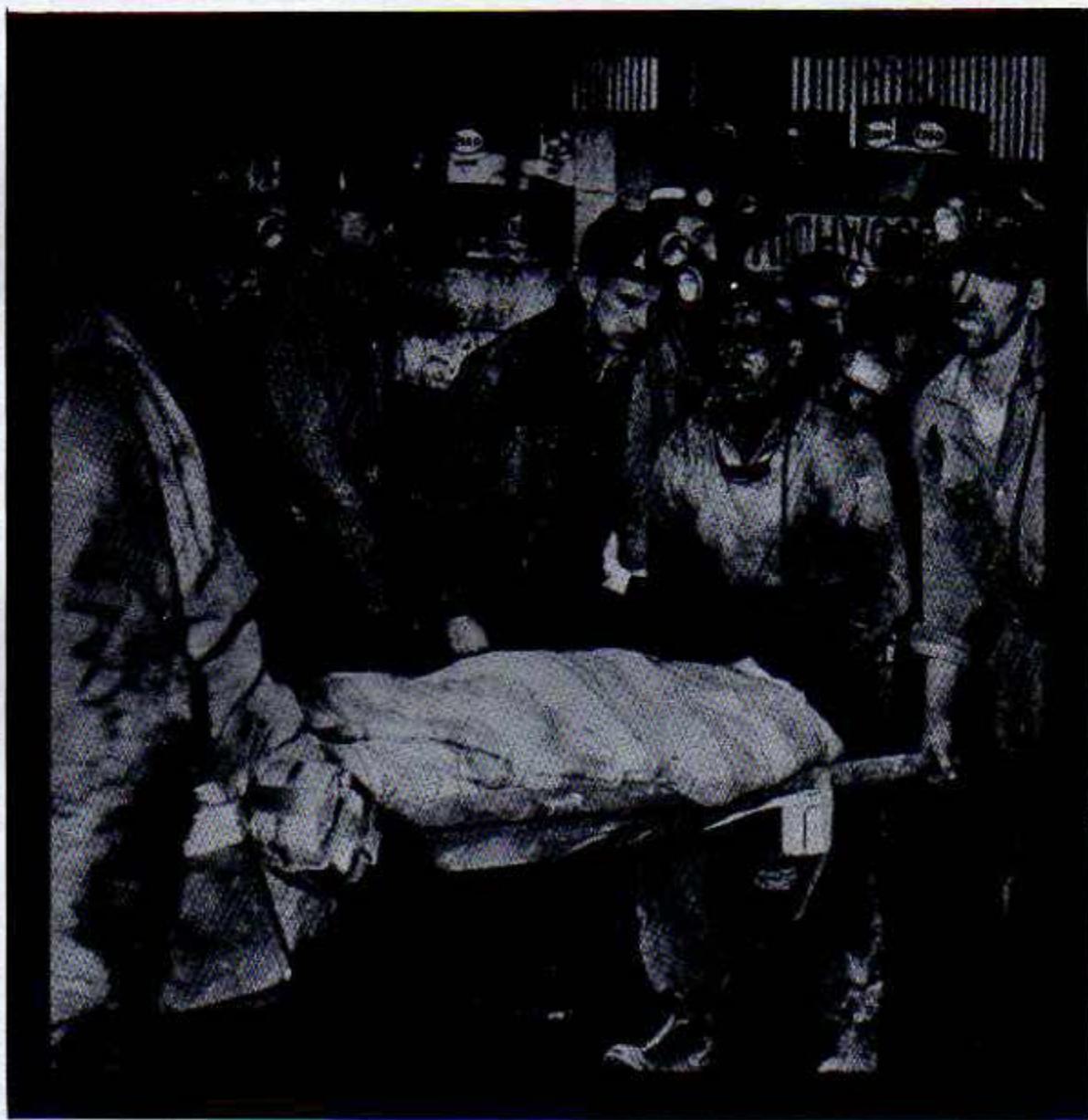


Vol. VII
No. 5
75¢

SCIENCE FOR THE PEOPLE

OCCUPATIONAL

HEALTH and SAFETY



**BI-MONTHLY PUBLICATION OF SCIENTISTS AND ENGINEERS
FOR SOCIAL AND POLITICAL ACTION · SESPA · SEPT. 1975**

INSIDE

CONTRIBUTORS: David Kotelchuck, I.N. Spector, Fran Ansley, Brenda Bell, New Haven Occupational Health and Safety Collective, Judy Day, Joel Swartz, Dennis Brubaker, Tomás Morales-Cardona, Gilberto Concepción Suárez, Barbara Beckwith, Joe McDonald, David Chidakel, Ann Arbor Science for the People.

EDITORIAL COLLECTIVE: Carol Cina, Eric Entemann, Ted Goldfarb, Judy Kahn, Nick Lombardi, Sharon Rosen, Gary Strichartz, Lorne Taichman, Synnöve Trier.

TABLE OF CONTENTS

4	AN INTRODUCTION TO OSHA
5	LETTERS
6	NEWS NOTES
8	ASBESTOS: SCIENCE FOR SALE
17	OSHA INSPECTORS
19	DIAGNOSIS: WORK-RELATED DISEASE
22	REPORTS FROM WORKER-ORIENTED HEALTH AND SAFETY PROJECTS:
22	I. New Haven
23	II. St. Louis
31	III. San Francisco Bay Area
33	XXX AT VINYLEX
36	INDUSTRIAL SAFETY AND HEALTH IN PUERTO RICO
38	OCCUPATIONAL HEALTH AND SAFETY RESOURCES
39	SCIENCE TEACHING COLUMN
40	REPORT ON BOSTON SftP-SPONSORED PANEL: Discussion on Research Ethics—The Secular Priesthood and its Ivory Tower Junkies
41	ANN ARBOR CHAPTER REPORT
43	LOCAL ADDRESSES FOR SCIENCE FOR THE PEOPLE

PICTURES AND GRAPHICS

p. 1	<i>The Metro/LNS</i>
p. 5	<i>MCHR/CPF</i>
p. 7	<i>LNS</i>
p. 11	<i>Plympton/Health/PAC</i>
p. 12	<i>Marie Berler</i>
p. 15	<i>Abramson/LNS</i>
p. 16	<i>For the People/CPS</i>
p. 17	<i>Ken Light/LNS</i>
p. 18	<i>CPF</i>
p. 18	<i>Survival Kit/UPA</i>
p. 21	<i>Nouvel Observateur/LNS</i>
p. 22, 23	<i>Bulletin Populaire/LNS</i>
p. 25	<i>Diego Rivera/AMEX/LNS</i>
p. 27	<i>Day Photographers</i>
p. 28	<i>LNS</i>
p. 29	<i>UPA/CPF</i>
p. 31	<i>The Movement/CPS</i>
p. 34	<i>Survival Kit/UPA</i>
p. 37	<i>Marie Berler</i>

EDITORIAL PRACTICE

Science for the People is prepared and distributed through the efforts of three groups of our members, each taking responsibility for the editorial, production, and distribution functions respectively. Membership in these groups reflects a commitment to participate in magazine work for at least six months, up to a maximum of one year. The groups will be accountable to the general membership through open meetings called to discuss each issue and through criticism and comments received through the mail. In this way it is hoped that the magazine will present a more coherent political perspective, better reflecting the view of the larger organization. Nation-wide participation is strongly encouraged; interested individuals should contact the magazine coordinator at the Science for the People office. We also encourage preparation of single issues of the magazine by chapters outside of Boston, and point out that the separation of editorial and production functions should make this a more realistic task.

Every effort will be made to publish articles describing Science for the People activities. Analytical articles will be judged on the quality of their writing, and whether they reflect the general political outlook of Science for the People. The editorial committee may make minor changes, but any extensive rewriting will be carried out with the consent of the author. The editorial committee reserves the right to make editorial changes, or comments in italicized script, on all articles submitted. Authors should submit articles as double-spaced typed manuscripts; if possible, six copies are helpful. Contribution of drawings, cartoons, photographs, or designs on the topics of science, technology, energy, pollution, health care, the struggle against racism and sexism, imperialism, etc. are very welcome. For legal purposes, *Science for the People* is incorporated. *Science for the People* is available in microfilm from Xerox University Microfilms, 300 North Zeeb Rd., Ann Arbor, Mich. 48106, (313) 761-4700.

ABOUT THIS ISSUE

This issue of *Science for the People* magazine is concerned with occupational health and safety. The Stony Brook Chapter chose this topic, not because of any particular expertise we possess in this area, but rather because of its relevance to workers' lives and to their organizing efforts. We knew that at least 30% of America's workforce suffers from job-related disease (see News Notes). This fact alone seemed to demand more attention than the infrequent articles which have appeared in previous issues (May and November, 1972 and July, 1974). The articles we received showed us that people were aware of the problems of occupational health and safety and determined to find solutions to them. However, these problems are complex and they demand our continued attention and increased action.

We begin our study with a brief description of the Federal Occupational Safety and Health Act (OSHA) of 1970. The act, and the administration established to enforce it, represented the first "comprehensive" legislative response by the Federal Government to the demands of men and women for a safe work environment. But the law and its implementation are a weak, liberal response to these demands and do little to improve working conditions. We would expect no more from a Congress which derives its political power from capitalist corporations and is ultimately responsive to their lobbies. Despite its failings, OSHA can be useful in organizing efforts to increase workers' control over job conditions.

We include an article by an OSHA inspector describing the background and motivations of his coworkers. He discusses the role of these well-meaning, liberal professionals whose class position and interest in self-advancement make it difficult for them to be responsive to workers' needs.

Our article, "Asbestos: Science for Sale", traces the history of the asbestos industry's reaction to the dangers of asbestos. There has long been evidence that this "magic mineral" is responsible for killing and crippling a large percentage of those who work with it. We learn how this industry has been able to conceal the dangers of asbestos for a half century, often through the complicity of company-supported researchers and company doctors. In a compelling discussion of industry-oriented versus worker-oriented research, the author demonstrates the danger of believing that the conduct of science can be independent of the values of society.

Two articles emphasize the problems of workers who are even more exploited than most: women and workers in Puerto Rico. Discussions about the health of women workers often focus on their femaleness, thus obscuring the true basis of the problem. The article examining conditions in cotton mills and textile factories in Southern Appalachia demonstrates that women's health problems

derive from their position in society, not from biological factors. Women frequently work in the lowest-paying jobs with minimal security and thus are exposed to particularly extreme health hazards. Worker exploitation is also amplified when capitalism is extended abroad in search of maximum profits. The contribution from Puerto Rico implies the need for international cooperation and solidarity among workers to prevent American manufacturers from transferring their unsafe plants to places where superexploitation exists.

A frequent complaint has been that past issues of this magazine have included too much theory and too little discussion of practice. Included in this issue are several articles about practical experience: a brief description by a worker of his organizing efforts in a Tennessee plastics factory, and three reports from worker- (vs. industry-) oriented occupational-safety-and-health projects.

The plastics worker discusses the difficulty of arousing unorganized, exploited workers to militancy—even when they are aware that they are exposed to serious health hazards. He also points out the frustration and disappointment the workers experienced in attempting to interest one of the more progressive unions in their problems.

The advantages of collective work and serious political discussion are apparent in the report from the New Haven Occupational Health and Safety Project. The authors present a clear analysis of the opportunities and limitations faced by professionals and students in helping workers fight for safer conditions and greater control in the workplace. The St. Louis Project, during its first year of existence, has been concerned with the question of whether to relate more closely to powerful but conservative unions, or to small, relatively ineffective, but radical rank-and-file caucuses. The failure to resolve this conflict has hindered the project's development. The Bay Area report points out

WE'VE MOVED!!!!

SCIENCE FOR THE PEOPLE

**HAS A NEW ADDRESS:
16 Union Square
Somerville, MA 02143
phone 617-776-1058**

the internal difficulties that emerge when students, professionals, workers and union leaders attempt to reach political agreement on a meaningful occupational-health project. An important message from these three reports is the desirability of working directly with both the rank-and-file and progressive-union committees. By using both approaches occupational health and safety projects will grow to meet the real needs of workers and sustain a high level of commitment.

One important factor not analyzed in any of the articles we have printed is the role that stress and boredom play in occupational health and safety problems. Evidence strongly suggests that blue-collar workers are especially vulnerable to stress-related diseases—for example heart, digestive and nervous disorders—and that boredom is a factor in industrial accidents. In recent years, as industrial sabotage and young-worker absenteeism have increased, certain social scientists have lumped stress and boredom together under the rubric of “worker alienation”. (This psychological definition of alienation is clearly different from the Marxist definition). In response, industry has set about to “experimentally redesign” the workplace and to hire clinical psychologists to deal with these problems. From our point of view it is the objective conditions under which people labor that produce stress, boredom and alienation and it is therefore those conditions which must be changed rather than the inside of workers’ heads or their feelings. Cancer, accidents, tension and alienation cannot

end before workers gain control of the workplace.

We are aware that as long as capitalism exists workers will be exploited by those who wish to maximize profits, and workplaces will remain unsafe. Workers have waged many struggles in the past, and will continue to struggle to gain control over their working conditions of which an important aspect is health and safety. Organizing around this issue is difficult, especially in hard times such as these when job security and bread-and-butter concerns take precedence. We urge more of our readers to take an active interest in this matter, and to participate in the difficult task of finding ways to employ science to serve the health and safety needs of workers.

To facilitate this work, we conclude with a brief compilation of some important information resources and various educational and organizing efforts for those who are ready to act.

This magazine is the Stony Brook Chapter’s second editorial effort. Working together these past few months has taught us a lot, brought us closer together, and allowed us to exchange and develop our political views. We urge and encourage other SESPA/SftP chapters to take responsibility for editing future issues of *Science for the People* magazine.

An Introduction to OSHA

The Occupational Safety and Health Act (OSHA), passed by Congress in 1970, establishes the Occupational Safety and Health Administration in the Department of Labor. The Act sets minimum standards for working conditions, which are enforced by the inspection of workplaces and the levying of fines of up to \$1000 for each violation, up to \$10,000 if the violation is willful or repeated. Any worker covered by OSHA can file a complaint and request an inspection of his or her workplace. (State, county and municipal workers, and some household workers are not covered.) An OSHA inspector will tour the plant with representatives of workers and management and, if deemed appropriate, will send a citation listing violations and the deadlines for correcting them to management and to the person who filed the complaint. However, management can appeal the violations, fines and deadlines, whereas workers can only appeal the deadlines.

Both OSHA and its research arm, the National Institute for Occupational Safety and Health (NIOSH), are underfunded and understaffed, to the extent that it would take 65 years to inspect every workplace just once. Many inspectors tend to favor the company’s point of view, labeling many hazards “nonserious”. The average fine is less than

\$28. Corporations exert pressure on NIOSH to propose less-stringent standards, and can force delays in enacting those standards that are approved. (For example, a new asbestos standard was approved in 1972 but the implementation date is not until 1976.)

These weaknesses are built-in. The standards are written by scientists and bureaucrats who won’t suffer if the standards are too weak; inspectors don’t have to spend much time in the plants where hazards are overlooked, and management can ask for exemptions from particular standards and appeal violations. However, OSHA standards can be an effective weapon for workers to use for educational purposes and in building support for health and safety struggles. To use OSHA effectively, workers must know the law thoroughly and be willing to use it aggressively.

The above information was taken from How to Use OSHA, written by the Occupational Safety and Health Project of Urban Planning Aid, Inc. (639 Massachusetts Ave., Cambridge, Ma. 02139; telephone (617) 661-9220). The project is a nonprofit organization, established in 1969, which provides resources and information to workers who want to organize around health and safety.

letters

Dear friends at SESPA/SftP,

I appreciate your work very much—especially the magazine. My political goals and perspective are growing a lot and I am aided substantially by the magazine. My interest in science has always lain with a commitment to serving people. And so when I discovered Marxism (and as I learn more about it) your ideas helped to fit science into my new perspectives on what I should be doing with myself.

China: Science Walks on Two Legs is great. Wow, it is so encouraging to find that somewhere a socialist society is really working, and that it's not all just a theory. And what's more, 800,000,000 people is a pretty ... big experiment to be working!

Your book does so well at describing what the Chinese are all about, and how a planned society can work.

Thank you,
David Kriebel
Washington, DC

Hiya,

I am discontinuing my membership with SESPA/SftP, but I'd like to let you know why. I would like to see more concern with specific humanitarian and social issues, and less preoccupation with the revolution. I know that seems like band aids for cancer to the committed, but I think the assumption that the fight for a more humanitarian science is an aspect of the fight for, say, socialism over capitalism, is deeply suspect.

Anyhow, I wish you all well, and thank you for your concern.

Bill Wheaton
San Diego, CA

We agree that SftP magazine does have a particular, consistent editorial viewpoint: We favor articles which include a critical political analysis of scientific activity and which point up the changes needed in the social structure to make the practice of science more responsive to people's needs. Such a political analysis clearly does not preclude humanitarian concerns. In fact, a survey of the magazine's content shows that a great many of the articles we publish suggest the need to organize around issues involving the effect of science on people's lives. The present issue of the magazine reflects this concern, and recent issues have included articles about health care, nutrition, weather modification, the food and energy crisis and science in China.

Dear Mike,

I am more than pleased by the concern that Science for the People has shown regarding my situation, and I more than welcome the support. I have had no trouble in receiving the magazine, so my not following through with some form of acknowledgment can rightfully be seen as a mistake on my part, so please accept my apology.

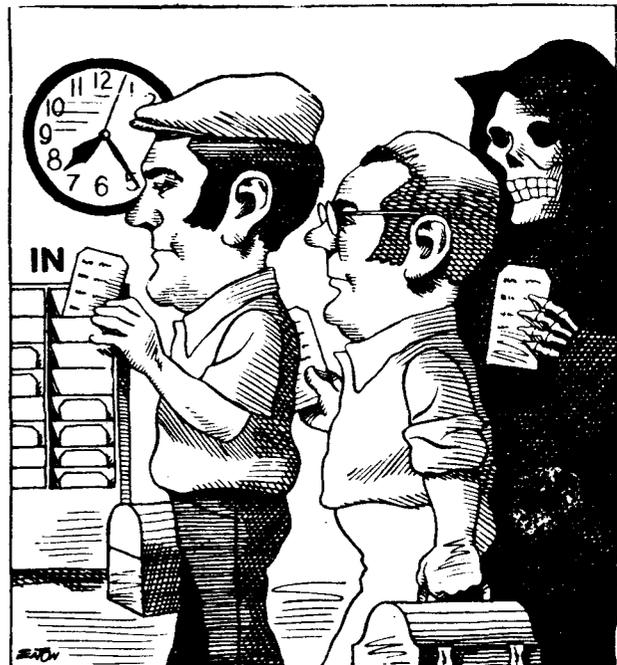
I have made many at-random attempts to establish contact with politically associated people and otherwise, but so far I have not fully responded to the magazine by utilizing its local addresses section. I know you can understand that prison is perhaps not the best place in the world to start relating from but I assure you I am more than willing to try. At this time I feel that I am not really ready to adequately contribute to the magazine as far as the articles, but I am serious about wanting to help, and I am capable of corresponding with SESPA workers from around the world if given the chance.

So in ending I would like to say that the Science for the People magazine is always thoroughly explored by the aware and the unaware here at Pontiac; we consider it a learning tool.

In Solidarity,
Anthony

P.S. I am from the Chicago collective area.

More letters on page 42



NEWS NOTES

Everyone! Please contribute items of interest and humor to this regular section.

SHOCKING OCCUPATIONAL HEALTH STATISTICS ARE RELEASED

Diseases suffered by three of every 10 factory and farm workers examined by a federally financed medical-research team appear to have been caused by work conditions.

The number of workers found in the study with occupationally related diseases was about three times greater than reported in California, the only area in the United States that summarizes disease claims on a regular basis, the researchers said.

A second major finding of the two-year research project was that when results of the examinations of individual workers were compared with official government records, almost 90% of the work-related health conditions had not been reported.

Though the study involved only 908 of America's millions of workers, health experts and union officials agreed that it raised a number of important questions. Among them were the following:

If the same level of occupational disease found among the selected employees is discovered to exist in workers throughout the United States, will industry be prepared to invest in the additional health safeguards needed to combat the problem?

Does the high level of occupational disease found in the survey indicate that there are gaps in the training offered to doctors by medical schools?

Four years after Congress enacted a major law intended to modernize and improve the Government's

effort to reduce the diseases of the work place, why was an overwhelming majority of the health conditions uncovered by the research project not noted in either the reports of the Bureau of Labor Statistics or in workmen's compensation claims?

The study, which was released in May, was conducted by researchers at the University of Washington under a \$190,000 grant from the National Institute of Occupational Safety and Health.

Considering just the diseases believed to have been prompted by the job, the researchers said 28% involved skin conditions, 25% respiratory conditions, 14% such nonsymptomatic problems as elevated levels of lead in the blood and 9% conjunctivitis and other eye conditions. Anemia, diseases of the muscular-skeletal and connective tissue and other medical problems accounted for the remaining 6%.

New York Times

ARE YOU PREPARING FOR THE BICENTENNIAL?

At least two federal law enforcement agencies are getting ready for America's Bicentennial celebrations. The Justice Department's Law Enforcement Assistance Administration (LEAA) has set aside \$1 million for local programs to combat "terrorism" in 1976. The money will be given to cities hosting major Bicentennial celebrations in sums of \$40,000 to \$60,000.

And the F.B.I., fearing the Bicentennial will encourage terrorist activities, has recently established a Bicentennial unit.

Long live the American Revolution!

IT NEVER HURTS TO ASK?

Under the new Freedom of Information Act, federal agencies must reveal the contents of any personal files being kept on a citizen at her or his written request. The F.B.I., the C.I.A. and other agencies are being deluged with letters about such files.

But beware! Every time the F.B.I. receives a request it opens a file on the letter writer if one isn't there already.

ROLL OVER BEETHOVEN

The House of Representatives has voted to abolish the Federal Metal and Non-metallic Mine Safety Board of Review by a vote of 400 to 16. The board, created to hear appeals from mine operators whose mines were closed for safety reasons, has not received a single case since its creation in 1970.

Jubal Hale, the board's executive director, asked Congress some time ago to abolish the board—and his own job—but nothing happened.

Mr. Hale then went public and, after a series of news articles, became something of a popular hero for his willingness to give up days of drinking coffee and listening to Beethoven records, at a salary of \$19,000 a year.

Members of the board serve without salary but are paid expenses for traveling to meetings. This year's meetings were held in Las Vegas at a cost of \$1,800.

New York Times

STUDIES FIND CANCER DEATHS ARE GEOGRAPHICALLY RELATED

Some unexplained regional abnormalities in cancer death rates are disclosed in a county-by-county atlas recently published by the National Cancer Institute.

The atlas is based on a compilation of more than 5 million cancer deaths between 1950 and 1969 in all 3,056 counties of the 48 contiguous states.

The scientists who developed the atlas believe that its greatest value may be to pinpoint high risk communities where future, more detailed studies may detect special cancer hazards that have gone unrecognized.

For example, lung cancer death rates were above average in areas roughly following a line along the Gulf Coast and up the East Coast.

Dr. Joseph F. Fraumeni, Jr. associate chief of the National Cancer Institute and one of the study's authors, said in an interview that he does not consider this pattern to be in conflict with the view that excessive cigarette smoking is a major factor in lung cancer. He said it did suggest that

there are other contributory factors, still unknown, that must be considered as well.

"The maps of cancer mortality together with the correlation studies conducted to date suggest that environmental factors, including industrial chemicals, amount for at least part of excess cancer risk in certain communities," Dr. Fraumeni said.

In a related study published in April, the team of scientists at the Cancer Institute showed a clustering of deaths from several types of cancer in 139 counties where the chemical industry was most highly concentrated.

The types of cancer that seemed linked to geographic areas where the chemical industry was active included cancers in men of bladder, lung, liver and a few other types.

An earlier study by the institute's epidemiology group showed that residents of communities where copper, lead or zinc smelters were situated had significantly higher-than-average death rates from lung cancer. Arsenic spewed into the air by the smelting process is considered a likely causative factor.

The study suggested strongly that the risk involved not only people who worked in the smelting industry, but also other people who lived in the communities where the smelters were situated.

The new atlas, titled Atlas of Cancer Mortality for U.S. Counties 1950-1969, is available for sale from the Superintendent of Documents, United States Government Printing Office.

APARTHEID POLICIES JAIL 10 MILLION BLACKS

In the past ten years, well over 10 million South African Blacks — about 2/3 of the Black population — have been jailed for Pass-Book offenses, according to the Institute of Race Relations, Johannesburg.

A Pass Book is a personal identification document which all Blacks over 15 years of age must have and maintain according to a complex set of regulations requiring monthly information updates.

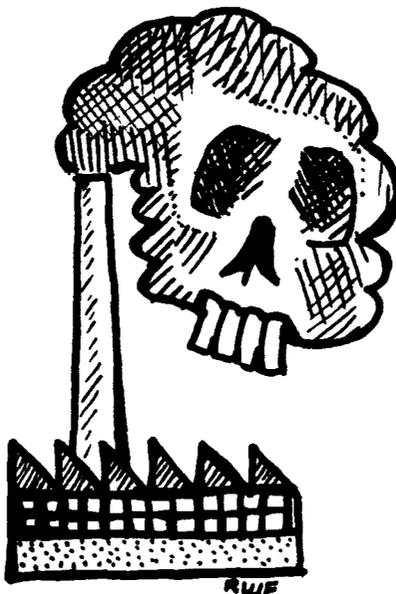
There are about 30 major Pass

Book offenses — including failure to carry the Book and surrender it to authorities on demand, failure to have any of its 96 pages of documentation in order, and living in a place without proper registration.

Blacks must live in the Bantu homelands — isolated, underdeveloped areas where whites are not generally allowed entry. Only when labor requirements change will a specific number of Blacks be imported into a white area to work. Jobs may generally be held for only one year before return to the Bantu homeland is required.

Pass-Book offenses carry a mandatory jail sentence. And anyone may be legally detained in prison indefinitely without charge.

South Africa has the highest prison population in the world. Not incidentally, its whites have the world's highest standard of living.



FARM WORKERS WIN LEGISLATIVE BREAKTHROUGH

Legislation of major importance to farm workers has just gone into effect in California. The Agricultural Labor Relations Act gives that state's farm workers the right to hold neutrally arbitrated, secret-ballot elections to determine the union of their choice — a basic right the United Farm Workers has been demanding for 10 years.

Under the new law, petitions to

hold these elections must be signed by a majority of the workers, and they must be filed when at least 50% of workers employed during the peak harvest season are actually at work. Elections must then be held within seven days.

Table grape growers are claiming the boycott is "obsolete." But the boycott of non-UFW table grapes, head lettuce and Gallo wines continues because enabling legislation is only the first step toward victory. Only when the growers sign good union contracts with the union of the workers' choice, will the boycott be called off.

\$87 MILLION DOD BLUNDER DISCOVERED

The U.S. Department of Defense improperly spent \$87 million in research and development costs for the JT9D aero engines produced by Pratt and Whitney, according to a U.S. General Accounting Office (GAO) report.

The \$87 million should have been paid by the company, which designed the engines for use in the Boeing 747 and the McDonnell DC10. Thus, the GAO report concludes, Pratt and Whitney charged the Navy for work it had to complete to fulfill its commercial contracts.

The money, which was spent between 1968 and 1973, cannot be recovered.

U.S. Scientist

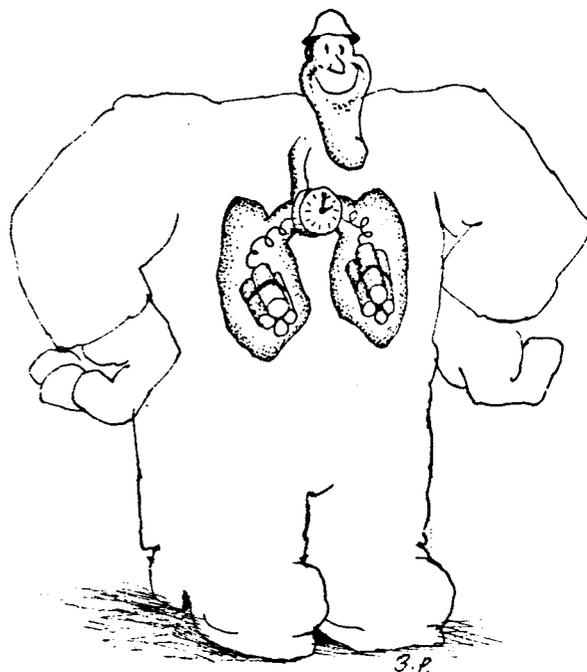
"EL CORTITO IS BACK"

Use of "el cortito", the short-handled hoe, has been reinstated by a California court at the request of the Western Growers Association. The California Industrial Safety Commission banned use of the hoe in April when the state's Supreme Court ruled that the hoe is unsafe.

The 12-inch hoe handle forces workers to bend while using it, causing severe back and muscle problems. Thousands of farm workers have become permanently disabled after years of stoop labor.

The growers won their case by pleading hardship. They said they would have to buy some 20,000 new hoes.

ASBESTOS- Science for Sale



For almost a decade exposes of worker deaths due to asbestos have commanded newspaper headlines. In 1972 the U.S. government held hearings on a new asbestos standard for the workplace. Yet today the human cost of asbestos exposure remains a public scandal.

Despite this recent publicity the dangers of asbestos were discovered not in the 1960's, but back at the turn of this century: The first worker death due to asbestos exposure was diagnosed by a London physician in 1900. [1] His report lay interred in government records for over two decades.

What the general public did not know, the asbestos industry and the workers certainly did. In 1918 U.S. and Canadian insurance companies stopped selling personal life insurance policies to asbestos workers.[2] Also, many workers discovered the hazards of the job soon after being hired and quickly left.

Asbestos disease escaped notice by doctors, in part because its main effect was to exacerbate existing cases of tuberculosis or reactivate dormant cases. But perhaps a more basic reason was that the number of deaths was small, since the number of workers throughout the world was only a few thousand. The asbestos industry was still in its infancy in the early 1900's, with world production of asbestos in 1920 at only 200,000 tons, five percent of present production.

The industry began its rapid growth during the post-World War I construction and automobile booms of the 1920's. With this growth, inevitably, came an upsurge in worker deaths. The medical profession rediscovered asbestos disease in 1924, when Dr. W.E. Cooke reported in the British Medical Journal on the death of a 33-year-old woman from dust inhalation in an asbestos factory.[3] By the end

of the 1920's British doctors had reported a total of 12 cases. What's more, in some instances asbestos disease was found at autopsy with no sign of tuberculosis, unequivocally implicating asbestos itself as the cause.

The "new" disease, called asbestosis, is caused by scar tissue forming around asbestos fibers trapped in the lungs, and is similar to coalminers' black lung. Its earliest symptoms appear mild—a slight persistent cough and shortness of breath upon exertion—usually developing about ten years after first exposure to the dust. If exposure continues, the disease can eventually lead to serious lung damage and death.

In the United States the first asbestos death was reported in 1930. By 1935 a total of 28 asbestos cases had been reported in Great Britain and the United States. [4] Industry had ignored all reports of asbestos disease in the past, but with the number of cases mounting it could no longer do so.

Corporate Strategy

During the 1930's, Johns-Manville, giant of the U.S. asbestos industry, began developing a strategy that was to serve it well for more than 30 years. The main priority of the strategy was the company's economic survival and its profits. These could not be taken for granted in the midst of a major depression and in the face of cutthroat competition with other companies, especially by a company that was in corporate terms still rather small.

The strategy developed on several fronts:

1. build the company as rapidly as possible and weave asbestos into the matrix of the economy so that it would become indispensable.

2. fund medical research that would discredit reports of asbestos hazards.
3. keep a check on workers' health while telling them as little as possible.
4. keep labor unions out of the plant.

Becoming Indispensable

The first imperative—to grow as rapidly as possible—was of course common to all industry, and in this the asbestos industry succeeded phenomenally well. The engine of growth was the rapid development of literally thousands of new uses for the so-called “magic mineral”. For example, before World War I transite (asbestos-reinforced concrete) water pipe had not yet been developed; today it is the single major use of asbestos. Asbestos insulation for ships came into widespread use during the shipbuilding boom of World War II, endangering several million shipyard workers. Today the estimated 3000 industrial uses for asbestos include products as varied as insulation for Apollo space rockets, roof shingles, siding, brake lining, clutch facing, linoleum, electric wire casing, draperies, rugs, floor tiles, ironing board covers, potholders and fireproof clothing.

With this boom, almost all of it taking place after extensive reports of asbestos hazards, Johns-Manville sales grew from \$40 million in 1925 to \$685 million in 1971, making it among the hundred largest U.S. corporations. Today the U.S. asbestos-manufacturing industry alone employs 50,000 people, asbestos-insulation workers in the building trades number 40,000 and an estimated 5 million people work daily with asbestos-containing products. As a result of this enormous expansion it is almost impossible, in terms of present political realities, to phase out nonessential asbestos production.

Buying Science

The second prong of industry strategy was to buy scientific results that would refute the many case studies of asbestos deaths. In 1929 the Metropolitan Life Insurance Company was commissioned by the asbestos industry to conduct a study on asbestosis. Under the direction of Dr. A.J. Lanza*, Assistant Medical Director of Met Life, medical examinations were conducted on a total of 126 asbestos workers, selected at random from five plants and mines in the U.S. and Canada, mostly Johns-Manville facilities. Sixty-seven of the 126 workers examined were classified as positive cases of asbestosis, 39 as doubtful and only 20 as completely free of any sign of asbestosis. On their face these figures represent an epidemic of disease. Calculated as percentages, the findings showed 53 percent of the work-

*Eventually Dr. Lanza became Director of the Bureau of Occupational Safety and Health (BOSH), the toothless federal predecessor to the present Occupational Safety and Health Administration. Later he became chairman of the Department of Industrial Medicine at New York University Medical Center, and today the A.J. Lanza Institute for Environmental Medicine at NYU stands as his memorial.

ers having asbestosis, 84 percent with some signs of disease (positive plus doubtful) and only 16 percent with no signs of asbestosis at all. However, the authors did not publish these percentages. They simply listed the number of workers in each category and hurried on without comment. Short of suppressing the data, they could have done no less.

In addition to minimizing the incidence of disease, the authors also played down its severity. They dismissed workers' complaints of coughing and shortness of breath, typical early symptoms of asbestosis, with the response, “Too much emphasis should not be placed on statements of subjective symptoms.”

The U.S. government served as handmaiden to industry in this case by publishing the Met Life study as a Public Health Report of the U.S. Public Health Service. This gave the study the imprimatur of the federal government despite its genesis in industry, its industry funding and its appalling pro-industry bias.[5]

Johns-Manville's other venture into medicine was its funding of animal studies at the Saranac Research Laboratory in upstate New York beginning in 1929. Although this work was continued for the next 25 years, it was of such poor quality that the National Institute for Occupational Safety and Health (NOISH) later deemed it of no use in setting an asbestos standard.[6] Nevertheless, industry was able to cite the work as evidence of its “long concern” about asbestos hazards.

In 1935 another asbestos-related disease appeared. Two doctors from the Medical College of South Carolina reported a possible link between asbestos and lung cancer. [7] By 1942 nine other case studies followed, showing that asbestosis victims suffer a high incidence of lung cancer.[8] Two scientists from Saranac, Arthur Vorwald and John Carr, dismissed the conclusions because, they argued, asbestosis victims might be especially susceptible to lung cancer.[9] What was clearly called for was a large-scale, plant-wide study, a so-called epidemiological study, in which workers employed at some particular date were followed for a period of years and all cases of disease recorded. But the hitch was that the asbestos companies had custody of the personnel records on which such a study would necessarily be based, and they did not want the study to be conducted. In fact, it was not until 21 years later that the study was performed. In the interim the Vorwald-Karr paper was industry's “proof” that no link existed between asbestos and lung cancer.

A question arises at this juncture: What became of the results of the scientific papers that first uncovered asbestos disease—28 in the case of asbestosis and 10 in the case of lung cancer? Apparently they just remained in the medical literature. Almost all the papers reflected a humane concern for the afflicted workers. But occasional appeals for help in dealing with the problem were invariably directed to industry instead of calling for public political discussion on controlling asbestos hazards—with the goal of eliminating all unnecessary uses of the material and controlling exposure when its use was mandatory. Unfortunately, the doctors and medical scientists were still wedded to a notion of professionalism that restrained them from

communicating their findings with workers. Thus workers at the Johns-Manville plant in New Jersey reported that before the 1960's they were not contacted by any of the doctors who had published papers on asbestos hazards.

Keeping Workers Uninformed

Industry, which was responsible for workers' health problems, withheld information about the hazards from their employees. For example, until recently the Johns-Manville medical staff denied workers access to their medical records. Furthermore, they refused to tell workers the results of physical examinations. Company spokesmen admit that until a few years ago the company did not tell workers that their respiratory problems were linked to asbestos. Joseph Kiewleski, an asbestosis victim, indicated that he was transferred without an explanation from a machinist's to a janitor's job after he had undergone a company physical examination. He found out from his own doctor years later that the reason for the job change was to remove him from the source of exposure.

Moreover, company doctors in their cursory examinations of workers missed the most blatant diseases. In 1971, Daniel Maciborski was diagnosed to have cancer at the age of 49, a few weeks after he had been given a clean bill of health by the company. He died seven months later.

The company also tried to attribute occupational diseases to other causes. According to Dr. Maxwell Borow, a local doctor, "They claimed that workers had pneumoconiosis from mining coal in Pennsylvania." But ironically, after World War II the Manville N.J. plant had an influx of young veterans who had never mined coal and in fact had left Pennsylvania in part to avoid the black-lung disease that plagued their fathers.

Asbestos-Industry Unions

The only part of industry's strategy that was not wholly successful in the period from 1930 to 1960 was its attempt to keep unions out of its plants. During this period most Johns-Manville plants were organized. But instead of having one or a few industrial unions at these plants, 26 different international unions were organized there, almost guaranteeing each a weak bargaining position with the company.

AFTER WORLD WAR II

Industry's basic strategy, unchanged since the 1930's, began to unravel in the 1950's as a result of new medical reports of asbestos hazards. Individual case studies further linking asbestos and lung cancer kept accumulating. [10] Finally in 1955 a member of England's prestigious Medical Research Council analyzed government data on asbestos-industry deaths and found an unusually high rate of lung cancer among the workers.

In what for them was a lightning-fast response, the Quebec Asbestos Mining Association (QAMA) commissioned a study in the following year on lung cancer among Quebec asbestos miners.[11] This was 21 years after the first reports linking asbestos and lung cancer. What industry badly wanted was a whitewash job—and it got one.

The study was conducted under a QAMA grant by the Industrial Hygiene Foundation (IHF, now called the Industrial Health Foundation). IHF, located in Pittsburgh, performs occupational-health studies for corporations. It is openly pro-management and is supported almost entirely by major U.S. industries.

As in the asbestosis case, the contrast is striking between the enormous size and scope of this experiment and that of the non-industry case studies—a fact that lent credibility to the industry study. The IHF investigation was an extensive epidemiological study of 6,000 asbestos miners from Quebec with five or more years of exposure.

All of this sounds impressive until one examines the IHF report itself.[11] Among numerous errors in method was one central, scientifically inexcusable flaw—the investigators, Daniel Braun and T. David Truan, virtually ignored the 20-year time lag between exposure to an agent known to cause lung cancer and the first visible signs of disease (the so-called latent period). They studied a relatively young group of workers, two-thirds of whom were between 20 and 44 years of age. Only 30 percent of the workers had been employed for 20 or more years, the estimated latent period for lung cancer. With so many young people in the study, too young to have the disease although they might well be destined to develop it, Braun and Truan of course did not find a statistically significant increase in lung cancer among the miners. As became obvious later, they had drowned out a clear danger in a sea of misleading data.

The practice of looking at a workforce with limited asbestos exposure is not an isolated error in a particular experiment; it is a hallmark of epidemiological studies funded by the asbestos industry. This was the reason that the scientists conducting the 1935 Metropolitan Life study did not find asbestosis in its advanced, most critical stage. Even in the 1970's, researchers funded by industry continue to conduct studies on young workers despite scores of experiments by non-industry scientists showing that the various asbestos diseases take anywhere from 10 to 30 years to develop.

By 1960, medical research on asbestos was at a watershed. A total of 63 papers on the subject had been published in the U.S. and Canada and Great Britain. The 52 papers not sponsored by industry, mostly case histories and reviews of case histories by hospital and medical school staff, indicated asbestos as a cause of asbestosis and lung cancer. The 11 papers sponsored by the asbestos industry presented polar opposite conclusions. They denied that asbestos caused lung cancer and minimized the seriousness of asbestosis. The difference was dramatic—and obviously dependent on the doctor's perspective, whether treating the victim of disease or serving as agent for its perpetrator.

The Lid Blows

In the early 1960's the research picture changed dramatically as a result of three separate studies. In 1960 a new malady was added to the lexicon of asbestos diseases: mesothelioma, a rare and invariably fatal cancer of the lining of the chest or abdominal cavity.[12]

In 1963 a study of lung smears from 500 consecutive autopsies on urban dwellers in Cape Town, South Africa showed that the lungs of 26 percent had asbestos bodies, the characteristic bodies originally found in the lungs of workers with asbestosis.[13] Both studies received extensive publicity and raised the specter of asbestos as a modern environmental hazard affecting all citizens.

To top this off, in the early 1960's Dr. Irving Selikoff and his associates at Mt. Sinai Medical Center in New York broke industry's hegemony over medical and personnel information by using the welfare and retirement records of the asbestos insulators' union as the basis for conducting an epidemiological study. Now for the first time in the U.S., scientists not beholden to industry conducted large-scale definitive studies on groups of asbestos workers. Beginning in 1964 the investigators reported an unusually high incidence of lung cancer and mesothelioma among asbestos-insulation workers, with time lags of 20 and 30 years, respectively, between exposure and disease.[14] By focusing on workers who were first exposed 20 or more years earlier, the studies highlighted its hazards. Together with the South African studies they made the "magic mineral" front-page news throughout the world.

Industry Fights Back

The asbestos industry responded to these reports by spending \$8.5 million on research and development in 1972, a large fraction of which went to outside medical research centers.[15] In contrast, the National Institute for Occupational Safety and Health (NIOSH) spent a mere \$260,000 on asbestos research grants that year.[16]

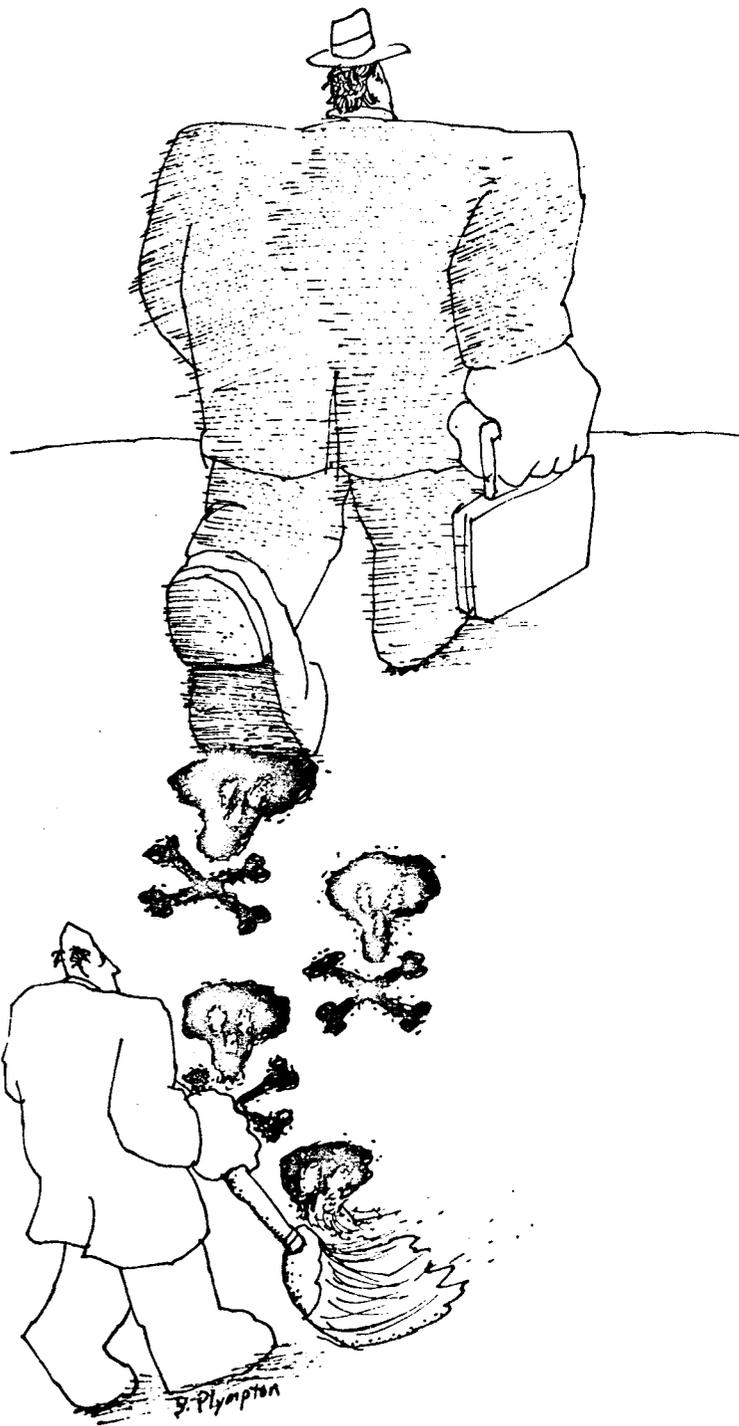
As a result, an industry that had only managed to generate 11 research papers on asbestos in the three decades before 1960 has come up with 33 in little more than a decade since then. The recent studies are just as self-interested as ever. Industry has stopped denying that asbestos causes lung cancer, mesothelioma and asbestosis (although it has not publicly admitted it, either). But research proposals that industry thought would minimize the problem or shift the blame have been given unstinting support.

Minimizing the Problem

A major epidemiological study was published in 1971 by J. Corbett McDonald and his associates at the Department of Epidemiology and Public Health at McGill University in Montreal. It was funded through a grant from the Institute of Occupational and Environmental Health of the Quebec Asbestos Mining Association.[17] The subjects were 11,000 miners in the two largest asbestos mines in Quebec.

Like the earlier IHF study on asbestos miners, this one looks quite impressive until it is examined carefully. Then we find as before that the workforce studied has had relatively limited exposure, and that many other serious methodological errors were made.

Let us consider the duration of exposure of the workforce. The research data shows that many of the miners included in the study worked in the mines for only a short



time and then left. One-third of the miners in the study had worked less than a year in the mines, two-thirds had worked less than 10 years. So it is not surprising that their mortality was not much different from that of the general population. The authors go even further. They begin their comments on the results with the observation that workers in the asbestos-mining industry have "a lower mortality than the population of Quebec of the same age."

What's more important, the authors largely ignore the latent period between exposure and disease for lung cancer. They do not categorize workers by number of years since first exposure, which would highlight any latency effect. Workers with recent exposures, more recent than the 20-year latent period for lung cancer, are included in the study and may be placed in the same categories as those who have been exposed many years earlier.

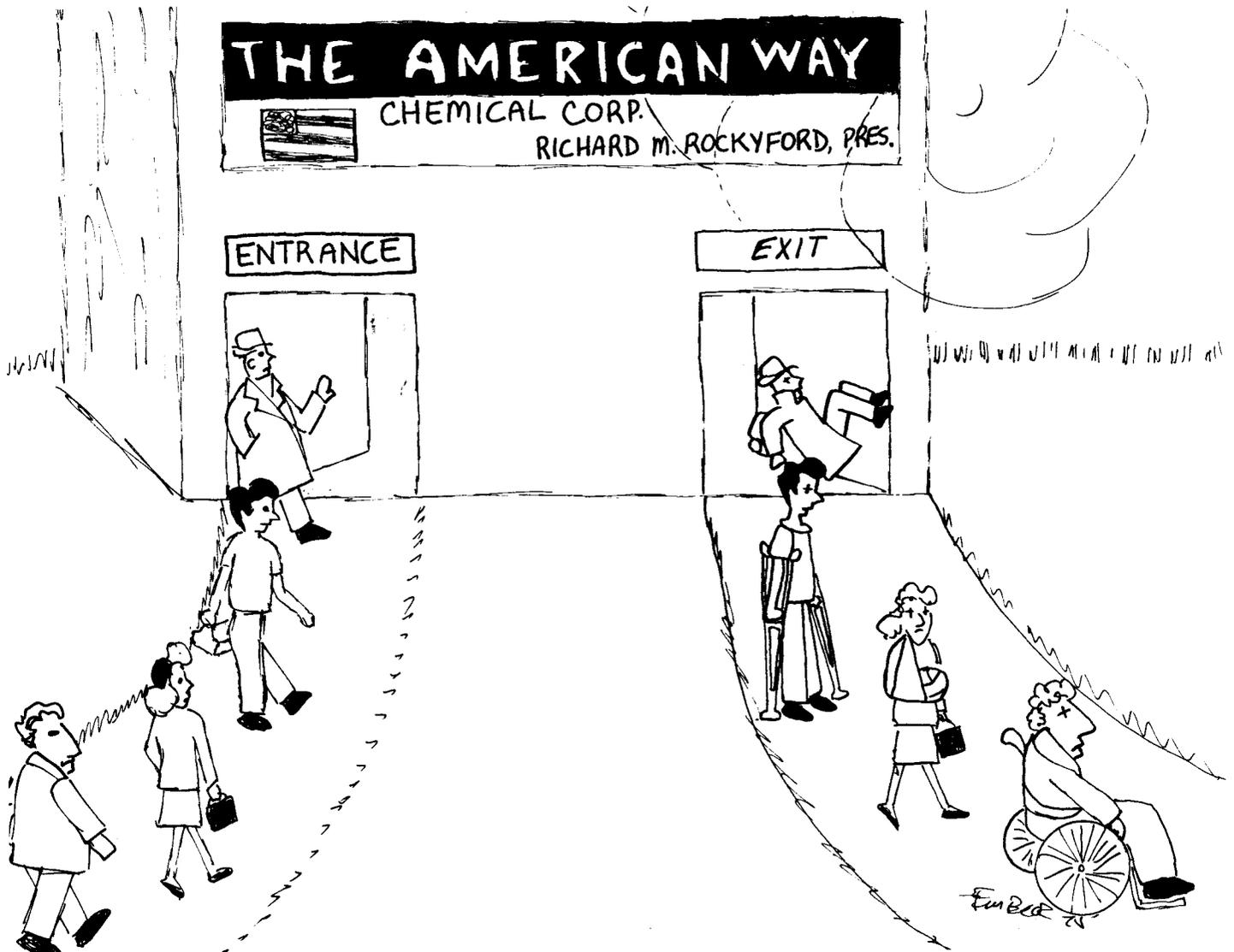
In contrast, Selikoff and associates at Mt. Sinai in their earliest experiments only looked at workers with 20 or more years of work experience since first exposure. [18] Thus they focused their attention on precisely that

group of workers most likely to develop disease, and thereby found evidence of serious hazards.

In fact, studies not supported by industry have consistently found asbestos to be a serious health hazard. While Braun and Truan, and McDonald found no increase in mortality rate due to asbestos or only small increases up to 20 percent, studies not financed by industry reported an increase in mortality rate among asbestos workers of from 200 percent to 9,000 percent above that of the general population.

Another way for industry to gain time is to try to shift blame. So pro-industry scientists have recently concocted one theory after another purporting to prove that asbestos workers and their families were not dying from asbestos, but from some impurity, some contaminant or some unusual type of asbestos.

One of the early theories, by Dr. Paul Gross of the Industrial Hygiene Foundation, was that trace metals were contaminating asbestos and causing the diseases attributed to asbestos. This work was supported by industry for six



years until Gross and supporters finally had to admit that the theory was incorrect.

Another theory is that certain types of asbestos fiber are dangerous, while others are safe. Ninety-five percent of the asbestos used in the U.S. and Canada is of one type, chrysotile. Since the bad-fiber theory has its origins in industry-sponsored research, it comes as no surprise that fiber types other than chrysotile have been blamed for asbestos disease.

Probably the ultimate in fishing around for something else to blame was the theory propounded by Gibbs of McGill University and funded by the Quebec Asbestos Mining Association, that the polyethylene bags in which asbestos is stored produce oils that contaminate the asbestos and might cause the cancer associated with asbestos.

Whether or not industry has lost these battles, the eventual outcome of each is less important than the fact that each salvo has tied up scientific resources, defined research issues and bought time. In the case of almost every industry proposal, some non-industry scientists have had to conduct experiments in rebuttal, using up some of the meager resources in the process.

Sitting on the Victims

While industry was mounting its medical and scientific counterattack, it had to deal with asbestos victims and their families. Many of the victims' dependents filed suits against the company. To keep things quiet, Johns-Manville usually settled out of court. The average settlement in the mid-1960's was \$10,000. In recent years the company has increased the settlement for mesothelioma victims. It now pays the deceased's hospital bills, as well as half the victim's salary for the rest of the surviving spouse's life. Asbestosis victims have fared even more poorly. In 1970 the awards for Johns-Manville's asbestosis victims averaged \$2,175.

Recently workers and their families have begun to institute large damage suits against individual companies. In California an asbestos worker won \$351,000 in damages from a company physician who withheld information that he had developed asbestosis. This year in Paterson, New Jersey, the families of a number of workers who died of asbestos exposure sued the Raybestos-Manhattan company and its suppliers (Johns-Manville among others) for damages of \$326 million. While such suits are filed after the fact of disease and death, the plaintiffs have often expressed the hope that the suits' financial impact may be great enough to cause a major cleanup throughout the asbestos industry. However, U.S. courts have been notoriously unfriendly to labor in the past and would seem a weak reed to lean on now.

While victims and their families were trying to deal individually with the company, union locals such as the one in the Manville plant were slow to take any initiative on asbestos hazards. In 1970, for the first time in ten years, the union struck, crippling the plant for almost six months. The major concerns were bread and butter issues,

but a vocal minority of younger workers began to raise questions about their health. When the strike was settled, the company agreed to permit workers access to their X-rays. As a "preventive measure", J-M also consented to establish a joint union-management environmental-control committee. Union officials publicly proclaimed the committee a great victory.

But the company quite independently of this union-management committee had begun a major cleanup of its plants in the late 1960's, presumably in expectation of stiffer government regulations in the near future. Throughout all its plants Johns-Manville lowered dust levels by eliminating many intermediate steps in the production process, enclosing or bettering ventilation in some areas, and improving housekeeping procedures. In the textile division of the Manville plant, for example, steps have been eliminated from carting, spinning and warping, according to officials conducting a recent plant tour. Manville executives are elated. "By eliminating steps we don't need, we also save money," one engineer boasted. And, he might have added, the company cuts labor costs and improves productivity.

What happens to those whose jobs are eliminated? They are "absorbed in other parts of the plant," according to Wilbur Ruff, Community Relations Director at the Manville plant. But that's not the whole story. J-M has cut its Manville work force in recent years, mostly by attrition—that is, by not replacing many retirees and others who leave the plant. In the six-year period during which J-M was reducing dust levels, the nonsalaried work force at the Manville plant dropped almost 45 percent, from 3,200 to 1,800 employees, according to Ruff. The working people of Manville have exchanged jobs for improved health conditions at the plant.

The 1972 Asbestos Hearings

But however much the company was in control of events within its plants, constant publicity about scientific studies that demonstrated asbestos hazards took their toll.

Following passage of the federal Occupational Safety and Health Act in 1970 major attention was focused on a new national standard for asbestos exposure. At a hearing held in 1972, George Wright, Johns-Manville's chief science advisor, was able to call on five studies supporting J-M's contention that the standard of five asbestos fibers per cubic centimeter should be maintained, not lowered. Of the five studies, four had been funded by the asbestos industry.

These studies helped put a "scientific" cover over industry's interests. Industry could not prevent the asbestos standard from being lowered to two fibers per cubic centimeter, but it contributed to a delay in its effective date for four years until 1976. Thus the corporations had won precious time to regain their initiative in the struggle. For workers too, the time lost was critical. Dr. Selikoff estimates that this delay eventually will take as many as 50,000 lives.

But even when the fiber limit comes down the battle

is not over yet, not by a long shot. The 1972 NIOSH report on asbestos bases its two-fiber recommendation primarily on the British standard. This standard is now under question in England because the experiment it was based on appears to have underestimated the extent of disease. Also, whatever level is set, there is no known safe level of exposure for any cancer-causing agent, according to officials at the U.S. National Cancer Institute. Thus, public discussion about setting a legal exposure level in plants is largely based on a false premise—that a safe level of exposure exists.

Johns-Manville After 1972

Since the 1972 hearings, industry's decades-old strategy has changed. For example, instead of forging ahead with development of new uses for asbestos, Johns-Manville has for the first time seriously decided to diversify. It is planning to develop a major outdoor-recreation center in Colorado, and it is, with consummate audacity, selling environmental-control products and services to other companies based on the experience in its own plants. In fact, environmental controls have been extolled by the *Wall Street Transcript* as one of the company's "hottest growth areas." The corporation is also studying the use of fiberglass as a substitute for asbestos.

While Johns-Manville's stocks have gone down in recent years, company sales went up and its profits are steady. In 1972, *Value Line Survey* called Johns-Manville "the picture of financial health." To be sure, U.S. sales of asbestos are down, but Johns-Manville has been pushing its foreign sales and these have more than made up for domestic losses.

Not only have foreign sales increased, but the asbestos industry has also been exporting jobs, especially those in the dusty asbestos-textiles trades. Since 1968 asbestos-textile imports from countries with weak or nonexistent occupational-health laws have increased from 0.1 percent to a whopping 50 percent of the total U.S. imports. Mexico's asbestos-textile exports to the U.S. rose from a mere 180 pounds in 1969 to 1.2 million pounds in 1973. During the same period Taiwan's exports rose from 0 to 1.1 million pounds and Brazil's from 0 to 0.5 million pounds. Twenty-one of Mexico's 23 asbestos-processing plants have been built since 1965.[18] Thus, industry has taken operations that would be difficult and expensive to clean up and has, with full knowledge of the consequences, exported them abroad to maim and kill foreign workers.

WHAT WENT WRONG

If, throughout this discussion, asbestos companies seemed largely in control of the situation, it is important to ask why workers and medical scientists friendly to them have not been able to turn the tide.

In the case of workers, the reasons are quite clear. Short of closing down asbestos plants, the best solution would be automation of the production process, thereby

removing workers from the exposure. While this appears technically feasible, in the present society it would be a disaster. Virtually all production workers, such as those at Manville, would lose their jobs and would be left to their own resources to find new ones. As one worker commented, "I'm 52. I been workin' at J-M 27 years. Who would hire me? Where else could I go?"

A planned and people-oriented system could find alternative jobs for displaced workers. Then automation could be, in the fullest sense of the term, life-saving. But our society does not have this commitment. Instead, it discards people when they are no longer economically useful—as it has done to miners and aerospace workers, to mention only two examples. Thus workers continue to be forced into the no-win "choice" between their jobs and their lives. No wonder that they have been afraid to push for strong health and safety measures.

Worker-oriented scientists have played an important role in the asbestos struggle, but their failures were critical ones, which might have changed the situation decisively. For example, had scientists and doctors who first found evidence of asbestos disease brought it directly to workers in the plants, workers might have been much more willing to take on the company despite great odds, and the new information would have armed them in their effort. In fact in the late 1920's and early 1930's, when the asbestos industry was still small, if medical people had not limited themselves to operating within narrow professional roles the expansion of the asbestos industry might have been nipped in the bud and thousands of lives might have been saved.

(A positive example of the importance of bringing medical information to workers is provided by the coal-miners' black-lung struggles. During the early 1960's scientists and medical people travelled to union and community meetings throughout Appalachia reporting to workers results of their studies and discussing with them the dangers of black lung. Later analyses have shown that these scientists played an important role in the development of black-lung struggles.)

The interaction between workers and scientists need not be one-sided. Looking at the history of research on asbestos disease, it becomes clear that a decisive scientific turning point took place in the early 1960's when the asbestos unions turned over their retirement and death-benefit records to Dr. Selikoff and thereby, for the first time, allowed non-industry scientists to examine the records of all workers in an industry. This provided critical new information on asbestos health hazards and helped overcome objections that earlier studies had focused on individual asbestos victims.

Today industry still seeks to dominate asbestos research. This is done by supporting individuals whose scientific practice demonstrates built-in biases useful to industry. These biases usually are the result of scientific and social values rather than dishonesty or conspiracy on the part of scientists. A critical examination of industry-funded asbestos research does not reveal overt falsification of data. In fact in many of the large-scale industry exper-

iments (for example the Metropolitan Life study in 1935 and the McDonald studies in the 1970's) data indicating asbestos dangers is circumspectly presented in the reports themselves.

It is clear that the critical difference between industry- and worker-oriented research does not lie in the experimental methods employed, but in the questions that sci-

entists try to answer and in the assumptions made when they analyze and present their data. If a scientist suspects that workers are often harmed on the job, he or she will adopt this as an implicit hypothesis and will focus attention on older, heavily exposed workers, who are more likely to show signs of disease. Data will be presented that are designed to illuminate the hazard to this group of workers



and summary and conclusions will typically begin with a statement about the most serious hazard uncovered by the study.

On the other hand, a scientist who designs a study with the assumption that workers are not often harmed on the job is more likely to study a much larger, more heterogeneous group of workers in a given plant or industry. In this case, data will first be presented lumping the workers together into a single group, which tends to bury the effect of unhealthy subgroups within the larger group.

Summary and conclusions will usually open with a statement about the similarity in the mortality pattern of the entire group of workers as contrasted to that of the general population. A comparison of the papers of Selikoff and McDonald, for example, illuminates these differences clearly.

Pro-worker scientists have much to learn from studying and understanding these differences. Some of our main tasks are to learn how to frame research questions in a pro-worker format and then proceed to definitively answer them. Formal scientific and technical education can help us a great deal with the latter task. But we must learn for ourselves how to ask the right questions in occupational health, since we are unlikely to acquire this skill at the university. At a later stage of the research process we must take the responsibility of sharing our findings with the workers whose health is affected.

Throughout, we must acknowledge and be aware of economic and political realities. If we do not, we may, as in the case of asbestos research, win the battle to discover truth and lose the war to save human lives.

David Kotelchuck

(Based in part on "Your Job or Your Life" by Marsha Handelman Love and David Kotelchuck, *Health/PAC BULLETIN*, Mar., 1973 and "Asbestos Research" by David Kotelchuck with the assistance of Robb Phillips, *Health/PAC BULLETIN*, Nov./Dec., 1974. See these articles for more detailed discussion and references. Health/PAC, 17 Murray St., NYC 10007)

REFERENCES

- [1] H.M. Murray in Charing Cross Hospital Gazette (London 1900). Later published in Report of the Departmental Committee on Compensation for Industrial Disease (London: H.M. Stationery Office, 1907), p. 127.
- [2] National Institute for Occupational Safety and Health, Occupational Exposure to Asbestos—Criteria for a Recommended Standard (Washington: U.S. Government Printing Office, 1972), p. 111-4.
- [3] W.E. Cooke, "Fibrosis of the Lungs Due to the Inhalation of Asbestos Dust," British Journal of Medicine II (1924) p. 147.
- [4] D.S. Egbert, "Pulmonary Asbestosis," American Review of Tuberculosis, XXXII (1935) p. 25.
- [5] A.J. Lanza et al. "Effects of Inhalation of Asbestos Dust on the Lungs of Asbestos Workers," U.S. Public Health Reports Vol. 50, No. 1 (1935).

- [6] NIOSH, op. cit., p. III-12.
- [7] K.M. Lynch and W.A. Smith, "Pulmonary Asbestosis," American Journal of Cancer XXIV (1935), p. 56.
- [8] H.B. Holleb and A. Angrist, "Bronchiogenic Carcinoma in Association with Pulmonary Asbestosis," American Journal of Pathology, XVIII (1942) p. 123.
- [9] A.J. Vorwald and J.W. Karr, "Pneumoconiosis and Pulmonary Carcinoma," American Journal of Pathology, XIV (1938) p. 49.
- [10] E.R.A. Merewether, Annual Report of the Chief Inspector of Factories (London: H.M. Stationery Office, 1947) and S.R. Gloyne, "Pneumoconiosis," Lancet, I (1951), p. 810.
- [11] D.C. Braun and T.D. Truan, "An Epidemiological Study of Lung Cancer in Asbestos Miners," Archives of Industrial Health, XVII (1958) p. 634.
- [12] J.C. Wagner et al., "Diffuse Pleural Mesothelioma and Asbestos Exposure," British Journal of Industrial Medicine, XVII (1960), p. 260.
- [13] J.G. Thomson et al., "Asbestos as a Modern Urban Hazard," South African Medical Journal, 37 (1963), p. 77.
- [14] Reviewed in I.J. Selikoff et al., Cancer of Insulation Workers in the United States, Lyons Conference on Asbestos (1972).
- [15] Johns-Manville Corporation, Report to the U.S. Securities and Exchange Commission, form 10-K (Washington: 1973) p. 6.
- [16] NIOSH Contract and Research Agreements (Washington: U.S. Public Health Service, September, 1972), p. i-vi.
- [17] J.C. McDonald et al., "Mortality in the Chrysotile Asbestos Mines and Mills of Quebec," Archives of Environmental Health, XXII (1971), p. 677.
- [18] Reported in Lifelines: Oil, Chemical and Atomic Workers Union News, April, 1975.



For The People/CPS

OSHA INSPECTORS

The author of this article worked and trained with about three dozen industrial hygienists employed as inspectors by federal OSHA or by various state OSHA agencies. This report is preliminary and necessarily limited in scope. It reflects observations and the fruit of casual conversation over the course of a few months. (For a brief description of OSHA see the box on page 4.)

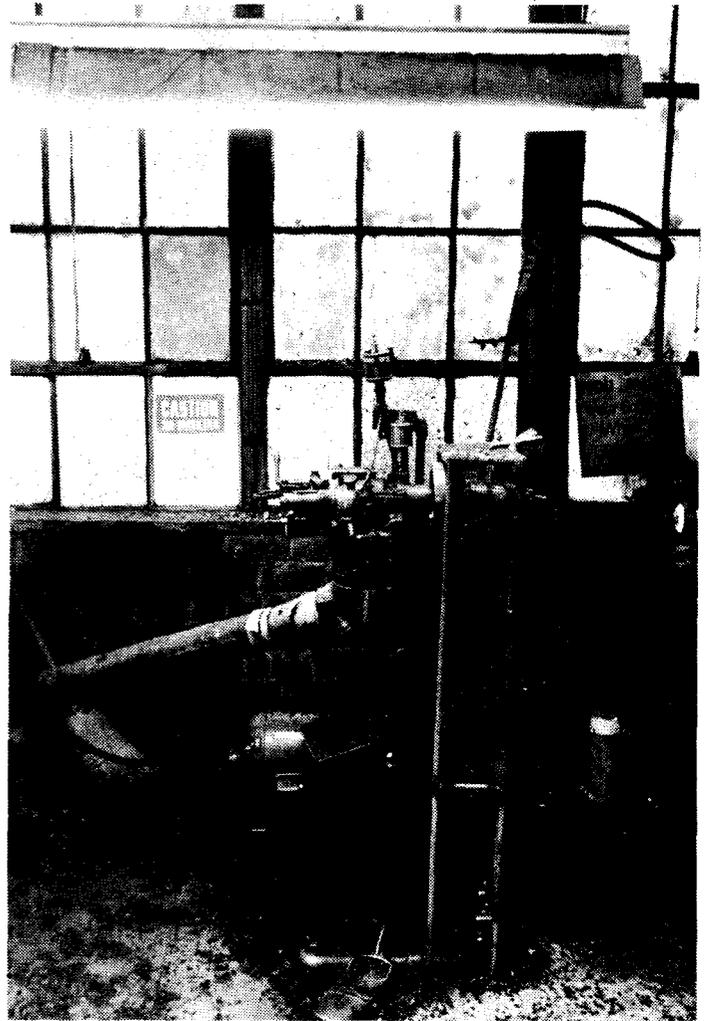
Backgrounds of OSHA Inspectors

Social programs find direct expression in the people who carry them out. Who are OSHA inspectors? Where do they come from? What can we expect them to do?

Most OSHA inspectors, particularly industrial hygienists, are white males. Women inspectors are notably rare, apparently constituting less than 10% of the total inspection force. Inspectors from northern industrial states tend to come from ethnic European backgrounds. Inspectors from the South and West tend to be WASP's. A few inspectors are Black, Latin, or Asian. They seem to enter OSHA jobs primarily from other branches of the federal government, particularly the military. Most inspectors seem to come from skilled blue collar or middle-rank professional families. A few come from relatively unskilled, working class backgrounds and a few from elite professional families. A good many consciously aspire to higher class status. They hope to use their OSHA income (supplemented in many cases by the incomes of their professional wives) to capitalize small businesses or to speculate in real estate.

Regardless of class background, all OSHA hygiene inspectors have college degrees in science, or some closely equivalent training. Many have bachelor's or master's degrees in chemistry and quite a few have degrees in biology or engineering. Ph.D.'s, particularly in chemistry, aren't rare. Surprisingly few people come to OSHA programs with direct training in industrial hygiene, and those that do generally enter from pre-OSHA state occupational health programs or from other government agencies (the armed forces, for example, maintain their own industrial hygiene programs). It appears that very few entry-level OSHA hygiene inspectors come from occupational health backgrounds in capitalist enterprise, perhaps because government pay scales are not competitive.

OSHA inspectors tend to be young, in their twenties or thirties. Some are hired directly out of school, but many have considerable experience in other jobs, most typically, perhaps, in quality control or research and development in medium sized enterprises. They take OSHA jobs because company chemistry is dull, repetitive, and often insecure,



and because government employment offers the promise of security, job mobility, and less day-to-day supervision. They do not, and this is an important point, take OSHA jobs out of a deep intrinsic interest in occupational health or workers' welfare.

How Inspectors View Their Jobs

How do they feel about their work? For the most part they see themselves as technocrats in the mini-profession of industrial hygiene. The government furnishes them set tasks and they prefer to accomplish their work compe-

cps



tently but with a minimum of exertion and hassle. They do not welcome anything that complicates smooth, orderly, straightforward inspections. Large plants are to be avoided. They require way too much work for one report and their managers tend to fight back disproportionately hard, drawing on sophisticated technical support. Very small workplaces are also a nuisance. There are too few people exposed to anything dangerous to make your time worthwhile. Militant unions are a pain in the neck. They insist on pointing out every little item and it takes forever to get through the plant. Apathetic union representatives are also discouraging, though they make life easier. Why even go to plants if the owners don't like you and the workers don't care. Whatever happens, try to avoid taking too many air samples. The work is tedious and the resulting paperwork horrendous. So go the views and preferences of a good many OSHA inspectors.

Surprisingly, a large proportion of inspectors dislike their role as enforcement officers. They'd rather, they say, be professionals than cops. If only they could jettison the rigamarole of citations and penalties they could get on with their real work as hygienists. They do understand, however, that without enforcement powers, the capitalists and managers would laugh them out of the factories. A good many inspectors hope to escape enforcement by getting their training in OSHA and then absconding to better-paying (but OSHA-inspired) jobs with private concerns.

Class Position of Inspectors

The OSHA program sits in the midst of a great class struggle and OSHA inspectors, try as they might, can't escape its repercussions. Though the OSHA program itself is a capitalist reform program administered in the interests of the ruling class, OSHA inspectors aren't capitalists. They are caught in the middle, between capital and labor, a position they find extremely uncomfortable. Ideologically they

lean toward the capitalists, but in their own work they collect and trade horror stories about the day-to-day atrocities the same capitalists commit, and they see the companies fight their professional efforts tooth and nail. Still, they rarely verbalize any profound interest in worker well being, they don't identify with the workers they come in contact with, and they certainly don't see industrialists as general enemies outside OSHA's limited arena. Nothing in their background, nothing in their political outlook, and nothing in their OSHA training leads them to do so.

How SESPA/SftP Should Relate to Inspectors

How can we relate to OSHA health inspectors? Right now we probably cannot organize inspectors as a group around a radical political program. Their social circumstances militate against this, and although they are not particularly well paid by professional standards, they do have steady jobs in a depression and they perceive their employment opportunities to be expanding as OSHA grows. This does not preclude links with individual inspectors. It's likely that many inspectors would attend properly advertised courses, seminars, or conferences offering education in concrete areas of industrial hygiene and taught from a radical perspective. As noted above, most OSHA hygienists learn the basics of their trade fairly haphazardly on the job. They feel a real need for more education and radicals should be able, in at least some cases, to step in and fill this gap by organizing appropriate programs.

OSHA inspectors have a good deal of valuable experience. They see more work places in a month than most of us stand to see in a lifetime. They can strike limited but valuable blows for better working conditions, particularly with the help and collaboration of militant unions or union caucuses. Not least, they have a vested interest in seeing that the OSHA program does not collapse in the face of reactionary attacks. With proper effort on our part, many OSHA inspectors can and should be won to closer contact with the radical community and to a more sophisticated and sympathetic understanding of workers' struggles.

I.N. Spector



Diagnosis:

Work-Related Disease

This is an adaptation of an article which originally appeared in Mountain Life and Work – a publication of the Council of the Southern Mountains. It was expanded and modified for use here by a member of our editorial collective with the permission and cooperation of the authors.

As Americans living in an industrialized society, most of us hold jobs that unnecessarily endanger our health. We will not overcome health hazards unless we organize and demand greater worker control over the production process. But not all workers share exactly the same concerns. Organizing will of necessity take place around those health concerns each group of workers feels most threatened by, and is most willing to risk and sacrifice for.

Women in the Work Force

Women form a distinct group within the work force. Sexist tradition has placed us in a set of sex-related social roles and it has thus led us to hold certain types of jobs [see box] with particular sets of problems.

Most women are housewives and mothers, who are denied even the right to be called workers. These millions of women lack the most basic of workers' rights – to a fair wage, to protective legislation, to unionize.

What about the 31 million paid women workers? Almost 7 million of us work in service industries – as janitors, in food preparation and serving, and as health and educational aides – in hospitals, private households, restaurants, and in schools. These low-skilled jobs all too often offer low pay and high abuse. These women, like housewives, lack many of the most basic workers' rights.

Another 18-19 million women have paid, non-professional jobs, most often in manufacturing or in clerical work (about 15% and 35% of paid women workers, respectively). Even these, the "better-off" women workers, are less likely than men to belong to a labor union. And they are far less likely to be union officers.

And finally, many women across the economic spectrum who have the dual responsibility of earning a living and maintaining a home find it necessary to have part-time paid work. These part-time workers are too often denied

fringe benefits, such as health insurance. As a group, they are also more likely to be ill treated – with lower pay, less union representation, fewer rights, and fewer protections.

Job Hazards for Women

Most women hold relatively powerless positions in this society. This adversely affects our ability to solve occupational and other problems. In an unbroken cycle of cause and effect, women are forced to take the worst jobs because we are powerless, and we are powerless in part because we hold the worst jobs with the longest hours, the lowest (or no) pay, and the least control.

Most discussions of job hazards that concern women

WOMEN IN THE WORK FORCE

Source: Bureau of Labor Statistics

<u>Occupational Group</u>	<u>Percent of Women Workers (1972)</u>
White-Collar Workers	
(1) Managers & administrators	4.5%
(2) Sales workers	7.5
(3) Professional & technical	14.5
(4) Clerical	<u>34.7</u>
Subtotal	61.2
Blue-Collar Workers	
(1) Operatives	12.8
(2) Craftworkers	1.2
(3) Other	<u>1.3</u>
Subtotal	15.3
Service Workers	
(1) Private household	4.5
(2) Other	<u>17.5</u>
Subtotal	22.0
Farm Workers	1.7



The Worker's Experience

focus on pregnancy and reproduction. Attention is directed to problems such as the following:

1. radiation and chemicals which can increase the incidence of birth defects.
2. exposure to chemicals which can damage the fetus or are a particular hazard to pregnant women. (For example the anesthetic, halothane, is suspected to be the cause of the much higher rate of spontaneous miscarriage suffered by operating-room nurses as compared to other women.)
3. physical hazards and types of work that should not be performed by pregnant women.
4. policies concerning maternity and post-maternity leaves.

Such discussions, while relevant, are narrow and often sexist in scope. (Genetic damage leading to birth defects is also a problem for men and discussions of leaves for child care should not perpetuate the repressive social bias that exempts men from this responsibility.) Another danger is that considerations such as these have often been used to

discriminate against women and deny them a whole range of job opportunities. Research must be done on these problems and women must organize and demand the involvement that will win adequate protection for all workers and their families. But, it is vital to recognize that the most important and pervasive occupational-health concerns affect us throughout our working lives, not because we are biologically different from men, but because of our sexually defined social roles. The generally ignored social factors that women must face exacerbate our health problems, and often prevent us from solving the problems we as women, are most likely to suffer.

Southern Garment and Textile Industries

To get a better idea of how this works, it might be helpful to focus on some concrete examples. In the Appalachian south, two industries which employ large numbers of women are garment and textile factories. As these are industries with which the authors are most familiar, some detail will be given about the health-and-safety hazards facing women in these jobs. They provide many examples of the occupational-health problems faced by working-class women (and men) in other industries nationwide.

Women who work in garment factories and textile mills generally hold the lower-paying, least-skilled positions. In the garment industry, women operate the sewing machines and inspect finished products, while men hold the scarcer, higher-paying cutting and mechanic jobs. There are many kinds of industrial sewing machines, such as binders, double-needle seamers, hemmers, and the dangerous snap machines, to name a few. The rate of pay usually depends on the type of machine being operated, and the type of clothing being made. In textile mills, where workers spin thread and weave or knit cloth from raw fibre, women perform a broader range of jobs but are still not often found in the male-dominated positions of loom-fixer and dyer. Winding, spinning, weaving and inspecting are departments generally filled with women in the mills.

There are garment factories scattered throughout southern-Appalachian towns and more are being built in rural counties. Large companies such as J.C. Penney, Sears, and Montgomery Ward contract work with these places, where wages are usually the minimum, and where there is most likely no union (only 10 to 15% of all southern textile workers are organized). Likewise, textile mills dominate the employment scene in the North and South Carolina and Georgia towns where they are most heavily concentrated. These factories and mills are often the only source of employment for women, and the employers know this.

There's no where else for us to go to work—and we need work. If there was some competition around, maybe the bosses wouldn't treat us so hateful. They'd know we'd quit and go somewhere else. But I have to keep my job — you got to take what the boss puts on you.

Stress

One of the most pervasive and common ailments that garment-factory and cotton-mill workers share with millions of other women in the workforce is stress. Stress produces both physical and emotional changes in a person, wearing her down and opening the door to many serious illnesses. Chronic stress may lead to ulcers, migraine headaches, asthma and heart disease.

Stress is caused by many factors — speed-ups, long hours, shift work, underpay, poor working conditions, assignment to rapid and repetitious tasks (particularly under the piece-work system) and pressure from supervisors.

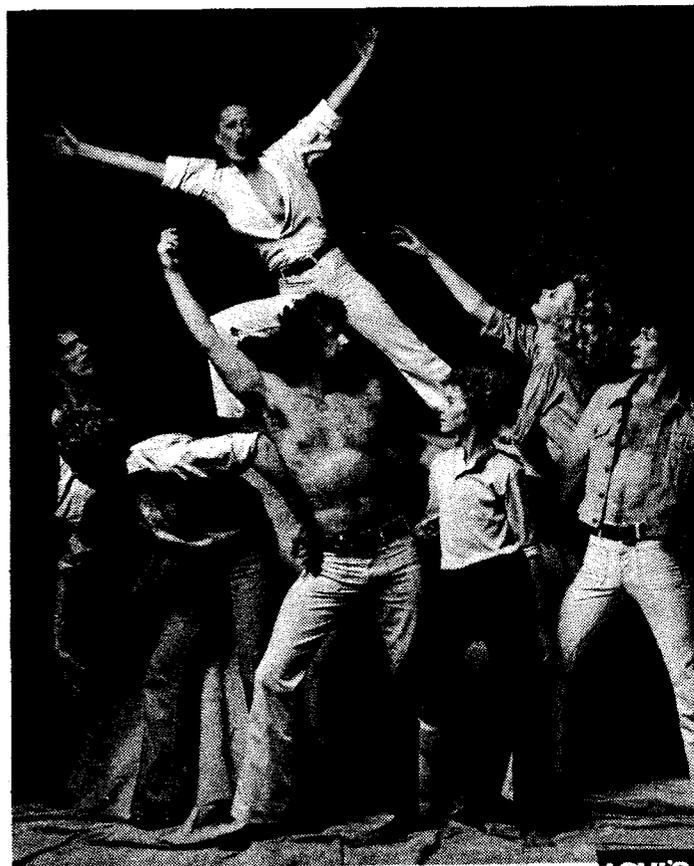
The biggest, most important thing about health of factory women, I'd say, is working women too hard — pushing, pushing, pushing, all the time. They give us new material and a new style, and don't give any adjustment in our rates. They want you to get to a certain speed of production, then they want you to go faster, faster. If you don't make production on a new style, then you're out. You get paid so little anyway. You have to push all the time to make it worth your while to go in there.

The biggest part of the women takes nerve pills. I'm on them myself. You just get so nervous, pushing all day. One woman works with me went to a doctor in the next town for her nerves. She was just all worn down. She said he said to her, 'Tell me, what are they doing to the women down there? I'm going to take a day off and go see for myself.' He said it seems to him from all the women that work there that come to him, 95% is on nerve pills, and the other 5% need them! It's bad, really bad.

Tranquilizers and other barbituates keep many women going, or keep them cooled out enough to deal with strains and tensions of their lives, inside the factory and out.

Most women go home to a second job. If a woman is married, she usually tries to be supportive to her husband. If a couple works different shifts, and their children are in school, chances are the wife will be feeding and taking care of people on three different schedules. If she has no husband, and is the sole support of her family on a woman's pay, then that is a huge responsibility:

I worked seven nights a week for years, from 3 to 11. I had four small children that I made a living for. Had to do it. My husband — he took up with another woman and I wouldn't live with him. He left me with four small children and I didn't have no other way of making a living.



The Madison Avenue Experience

Noise

Noise, one of the most common occupational hazards, is also a problem for garment-and textile-factory workers. The textile industry is acknowledged to have some of the noisiest of all work sites — particularly the weave rooms, where high-speed shuttles make lip reading a way of life. The garment industry too, can be noisy. Put fifty industrial sewing and finishing machines into one room, and there is a lot of noise. (1)

If you are new, and you aren't used to the noise, you can't understand the next person when she talks. But once you have worked a while you learn to know what others are saying even if you can't hear them.

Respiratory Problems

Respiratory problems are another major complaint of workers in both industries. Women working in garment factories complain about bronchitis, which results from lint

(continued on page 34)

I. New Haven

Introduction—The Need for Action

The New Haven Occupational Health and Safety Project is a collective of professionals and students who have been working around issues of workers' health in southern Connecticut since 1972. In this article we have discussed our approach, stressing one role highly skilled people can play in the fight for worker control of the workplace.

Each day working people in this country enter unsafe and unhealthful workplaces, risking a myriad of occupational diseases as well as disabling accidents. Each year 15,000 people are killed on the job while two million are permanently disabled. Studies of workers exposed to asbestos, vinyl chloride and coal demonstrate that we know very little about the debilitating often fatal diseases which develop years after initial exposure to dangerous substances. Half the workers in the United States are exposed to known toxic substances while new, untested compounds are being introduced into the workplace at the rate of one every twenty minutes.

We have experienced popular movements around the war in Viet Nam and the general state of the environment while death, disease, and pollution at the nation's jobsites have been virtually ignored. Although middle-class people are not free from exposure to occupational hazards, they have not been forced to endure the most severe hardships. The war was brought into our living rooms via TV, but conditions in industry and the lives of many working people remain distant from us. Class separation in our society directly prevents students and professionals from developing the personal relationships that lead to an appreciation of working people's experiences on the job.

What part can progressive professionals and students take in promoting substantive change? The answer depends on one's analysis of conditions and one's concept of potential relationships between professional and worker, as well as one's definition of workers' health. In the pages that follow we shall discuss our views and our experiences in the New Haven Occupational Health and Safety Project, a collective which has been working in southern Connecticut for the last three years.

Occupational Health and Safety in a Socio-Economic Context

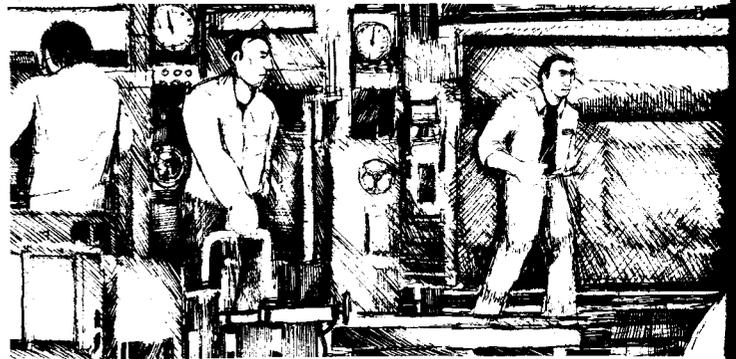
Occupational health and safety is not an isolated issue, it is intimately related to our society's level of technology and to the nature of the socio-economic system. The health of American workers is an example of the basic contradictions of our society, elucidating the power of corporations, the subsidiary and permissive role of government, and the lack of workers' control over their own lives. While it is important to management that the worker be ambulatory, sober, and productive, worker health and comfort is clearly not a priority.

REPORT WORKER- HEALTH & SAFETY

Approaches to occupational-health problems usually emphasize medical and scientific aspects of the issue, calling for more epidemiologic and chemical research. While there is a great need for further investigations, research alone will not effect change.

The standards set for hazards in this country are often inconsistent with research data. For example, in 1968, under the Johnson Administration, the Labor Department recommended that the allowable noise level for an eight-hour day be lowered from 90 decibels to 85 decibels (since decibels are logarithmic this actually is a factor of three), the latter being more consistent with scientific findings on noise levels which do not lead to loss of hearing. The Nixon Administration yielded to corporate pressure and blocked an attempt to raise the standard. We see that research alone is a weak weapon against government and big business.

Our approach to health is directed at the crucial struggle to eliminate the proven causes of chronic injury, disease and early death currently found in the workplace. This will only be achieved by investing the energy and resources necessary to prevent hazards and redefining priorities to build a safe, healthful and dignified environment where workers determine the policies which affect their health. Organizing around health issues can provide a pivotal focus for workers,

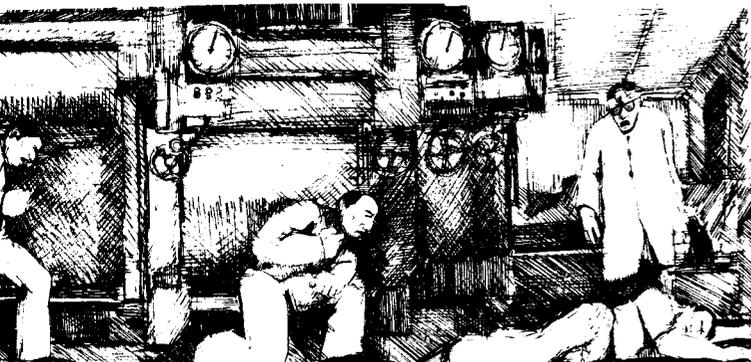


from ORIENTED TY PROJECTS

students and professionals to accomplish workers' control of their jobs.

Options for Involvement by Professionals and Students

Three major options are open to radical professionals and students. We can decide that the most positive contribution would be to provide the results of scientific research. This would provide resources necessary for worker organizations in their negotiations with management and their struggle to gain more control over the factors affecting their health. A second alternative is to use research findings to pressure for legislative action to improve conditions. This is the approach taken by many professionals, including the Nader groups. Questionably, it assumes that a few well-meaning professionals can tackle situations which are considered bad as a result of mere neglect rather than as the outcome of a general anti-worker policy. The third alternative calls for direct alliances with working people and participation in their political structures. We believe a strong movement of working people is a source of change. But management will ignore weak pleas of scientific facts not to their advantage. An alliance with working people offers the single opportunity for our collective and other people with advanced skills to affect meaningful changes in the area of occupational health.



Formation, Membership and Structure of the New Haven Collective

Our collective was formed in 1972, evolving as a group of people with experience in the Medical Committee for Human Rights and other projects involved with occupational health in the region. Then, as now, the membership consisted primarily of students and professionals in medicine, public health, law and the social sciences. The issues of structure and strategy confronted the group from the outset. Considering structure, some members favored a Nader-like approach which would utilize a full-time paid staff. Such a group, it was felt, could effectively research technical questions, initiate and maintain worker contacts, and provide medical and legal assistance, while a larger group could serve as a funding conduit and advisory body. The implicit philosophy of this structure, that change could result from stepped-up services to workers, was not shared by other members who felt that a basis of collective work would be a better way to work in occupational health. Eventually we concluded that the occupational-health collective must participate in a movement for worker control over the work environment in order to be productive. An integrated group committed to collective efforts with working people in New Haven was the structure most consistent with our political aims.

Affiliation With Central Labor Council— An Inadequate Approach

The New Haven Occupational Health and Safety Project (NHOHSP) recognized that contact with local unions provided an efficient route to involvement with health issues at the workplace. Initial contacts with the labor community brought open encouragement which resulted in the group's forming a formal affiliation with the Central Labor Council of the AFL-CIO of Greater New Haven. This recognition stimulated many requests for help. In some cases NHOHSP provided straightforward legal, medical or technical information or assisted people in obtaining some enforcement of the federal Occupational Safety and Health Act as a remedy to obvious and uncomplicated problems. It soon became clear that this type of activity was inadequate if the group was to establish ongoing relationships with unions to tackle serious health and political problems. Our contact with the local painters union provided an opportunity to move in a new direction.

A New Direction—Contact With Union Members

For several years, the painters had been plagued by jobs requiring the application of epoxy-based paints and the dangerous solvents necessary to mix them. Rising unemployment in the building trades forced increasing numbers of the union membership to take epoxy jobs, often in poorly ventilated spaces. They suffered from skin rashes, nausea, vomiting, respiratory difficulties as well as the realization that they would have to exchange inevitable sick days for a few days' wages. The law, with no standards for the compounds in question, and ineffectual inspectors who only

cited trivial sanitary violations on the job sites during inspections, provided no remedy. In an attempt to improve the situation a safety committee of union leadership, rank-and-file union members and several members of NHOHSP was formed. Over the course of a year this committee worked to mobilize the anger of the membership into strategies for action. Direct bargaining with architects and contractors, new clauses in the union contract and job actions were considered as possible tactics. Unfortunately, many of these ambitious tactics were incompatible with the deepening recession and the waning political and economic strength of the union. As the momentum in organizing around epoxy toxicity was fading, a drastic reduction in production of epoxy-based paints was forced on the industry by the oil embargo. But even though resolution of the problem came from outside the work of the safety committee, members of the painters union and NHOHSP alike felt that new strength and political education had been gained by the struggle.

Experience With Local 1199

Our experience with Local 1199, the hospital workers, serves as another illustration of our work. The union leadership contacted us to help evaluate a heat problem in a hospital's kitchens. The temperature level was causing frequent fainting and generally uncomfortable and unsafe conditions during summer months. NHOHSP urged that the union form a health and safety committee to focus complaints, research the problem and devise workable tactics. This committee was organized and proceeded to educate the membership on general issues as well as stop-gap measures for dealing with the heat. Members of 1199 and NHOHSP monitored worksites and prepared a detailed grievance calling for better ventilation and improved safe work practices. (While air conditioning could provide a total answer to the heat problem, the union felt it was not a feasible demand.) The grievance resulted in some improvements in the conditions in the kitchens. More importantly, the educational process and the mobilization to confront the hospital management on health and safety issues established the union as an effective bargaining agent and placed it in a stronger position to deal with management.

Recent Activities— Effects of the Depression

Much of NHOHSP's recent activity has centered on educational projects with working people which include the biological, legal and political aspects of occupational health and safety. We offered an eighteen-hour course which attracted thirty trade unionists from ten New Haven locals. The course stressed self-education and transfer of information and strategies among members of different organizations as well as the training of this small group to work with others around health and safety issues.

In the last twelve months many of the intensive projects with local unions have slackened as unions retrench to fight for bread and butter issues. NHOHSP has found itself in the difficult position of contacting locals, urging

them to take a strong stand against growing governmental and corporate efforts to reverse recent gains in the area of workers' health. We have stepped up our educational work and continue to provide specific services to area locals. Funding from a local church group with a strong interest in the area of workers' health and safety has enabled our group to open an office, acquire testing equipment and enlarge its library and files.

Summary and Self-Criticism

Insofar as any political approach to occupational health demands a link with the labor community, our initial activities have been relatively successful. While the work of the group has been useful and important to the development of union and NHOHSP members, personal and class barriers between group people and unionists have not been adequately attacked. Nor have we ever used occupational health as a direct organizing vehicle. The group has become critical of the crisis-oriented basis of its work with unions and is putting greater emphasis on strong on-going ties.

A group that desires a stable existence needs firm local roots, a meaningful ideological base and a viable methodology. It is probable that NHOHSP will continue to attract people from the "Vietnamized" radical professional ranks with limited tenure in New Haven and heavy time commitments elsewhere. While the group can continue to do broad-based educational work, it lacks the resources for many organizing efforts. It seems preferable to build local contacts by concentrating on organizing politically sensitive workplaces where actions will be economically important and widely noticed, and where they can serve as models of fights for worker control in New Haven. It is important that the group learn to balance this type of work with general education and time spent in internal group processes. The realization that NHOHSP has something to share and much to learn has been exhilarating, but the group has learned that educational approaches alone serve to intensify class differences between workers and professionals. In contrast, concrete problem solving and political successes have unified and energized the group.

Occupational health work must be seen as part of an overall workers' strategy in which radical professionals (such as the members of the New Haven Occupational Health and Safety Project) realize that progress is in the hands of working people and choose to use their time and skills accordingly. Workers' health, a vast problem in this industrialized country, has been ignored by corporations, government, and the scientific community. It has been difficult for progressive professionals, separated by class differences and sheltered from the reality of the situation, to work productively in this area. NHOHSP tries to develop strategies based on the understanding that change will result from a political rather than a purely technological solution. In practice, the group aims to facilitate and strengthen workers' efforts to gain control over their own lives.

New Haven Occupational
Health and Safety Collective

II. St. Louis

Introduction

On Mayday of last year, I started to work as the only full-time staff person for the Workers' Health and Safety Project [1] in St. Louis. WHASP came into being after months of hard work and planning by a handful of people who saw that blue-collar workers play a crucial role in society but have very little power over how that role is performed. Those who conceived the project became aware of occupational health and safety as an emerging issue of great concern to working people. Health and safety conditions, in their present horrendous state, are in the control of bosses. Fighting to improve these conditions means challenging the way bosses run the workplace, which is a pretty basic challenge. Winning such a fight is a concrete step towards the control of the work environment by the workers.

Ideally, WHASP saw its role in these fights as supportive rather than initiating. WHASP was to be a resource center providing medical, scientific and legal information and assistance to rank-and-file workers struggling to improve health and safety conditions on the job. I say "ideally" because such a role assumes contact with groups of rank-and-file workers who are engaged in such struggles and who want the support of an outside resource. The reality on May 1st, 1974 was that I had just been hired to develop our resources and, most importantly, to find people who wanted to use them.

There are things to be learned from the WHASP experience of one year. This article will describe some of the problems we've had in our efforts to bring resources to rank-and-file workers (called "outreach"), and how our own organization has developed.

Identity Crisis

During the first year of WHASP's existence, our major problem was defining "Who are we?". WHASP had come into being through the combined efforts of many people, but the key figures were four movement activists. I was aware of the project but had had no active input before being hired as the only full-time staff person. When I started, a Task Force was formed made up of a few scientific and medical volunteers and people mostly concerned with outreach. The core group was myself and the four people who had written the original proposal, plus three other activists. One volunteer had previous technical experience with occupational health, while two of us had worked with unions or had contact with rank-and-file workers.

In presenting ourselves to the outside world, we faced problems. For example, in drawing up a brochure describing the project, I set up an "us-them" dichotomy between



the project and the workers we hoped to reach. This dichotomy was disturbing to one other Task Force member, who felt the brochure should refer to "us" as workers, so that workers might identify the project as their own, as an entity in their control.

Our credibility among workers and unions was another problem related to the "who are we?" question. People wanted to know who we were and why we were doing this. My explanation was usually accepted by unionists: we are a service group that is part of the American Friends Service Committee, the "social service" branch of the Quaker religion. The missionaryism of that reply was not to my liking, but the fact is that in that first year we did not really try to devise a means for workers to become active members of our project. It really was "us" and "them".

Some other health and safety projects around the country, notably the various "ACOSHes" [2], are organizations which include workers. They were started partly through union locals which were progressive enough to work actively in health and safety, recognizing it as an issue of control of the workplace. This course was rejected by the people who conceived WHASP, primarily because they wanted it to be a rank-and-file project, and they feared that in St. Louis [3] a close identification with unions would keep away workers who were alienated by their unions' conservatism. On the other hand, rank-and-file workers were not included by the organizers of WHASP because they felt that workers' time could better be spent organizing in the workplace than in meetings outside the workplace.

So WHASP has not been an organization with great worker participation. Of course, whenever we dealt with workers it was they, the workers, that determined what action would be taken in their situation; but that's not the

same as having rank-and-file participation in WHASP decision making. I think that this kind of organization, without a worker constituency, is legitimate and can fill a need, but it should not confuse its identity. It exists *for* the rank-and-file, but is not *of* the rank-and-file.

Outreach – The “Union” Approach

During the early months of WHASP's existence, I spent most of my time contacting everyone I knew or knew of in the St. Louis labor union scene. This included both union officials and rank-and-file workers, though it was mostly the former. My approach was to describe some critical occupational health hazards and to contrast the features and failings of the “establishment” OSHA's with the services we had to offer and listen to their specific situations. I then tried to go beyond these initial contacts, making follow-up telephone calls and visits and offering to come to a meeting and talk further. The people and situations I dealt with were extremely varied, and so were the responses. The following is a chronicle of some of WHASP's frustrations in pursuing this “union” approach:

The St. Louis Labor Council (AFL-CIO) allowed me to speak to its Executive Board, but I never heard from them afterward, in spite of the fact that I asked them to make decisions on some specific requests. The State Labor Council kept me waiting to speak to the state convention for four hours, then ran out of time before it was my turn. They also took 900 WHASP brochures, but failed to distribute them. Teamsters Local 688 agreed to let us conduct workshops with their members, but then cancelled a scheduled weekend-long session with shop stewards, ostensibly because they needed to direct total energy to protecting jobs of their members working in a declining industry. The UAW let me speak to one meeting of 300 people on strike, but continued access to other rank-and-filers was made very difficult by the lack of understanding and/or interest on the part of some of the union bureaucrats. The Executive Board of an Oil, Chemical, and Atomic Workers local across the Mississippi River in Illinois met with me once and considered accepting our services for a specific plant, but decided that their own union resources were adequate and that working with us would be a duplication of effort. The Amalgamated Clothing Workers expressed interest but somehow nothing ever happened. Our proposal to teach a course in the Labor Studies Program of a community college was rejected by a small committee made up of union reps (including individuals from the UAW and Teamsters Local 688), and we learned that their discussion about us included the statement that WHASP may be a “challenge to union leadership” and that we were viewed with suspicion because we were a source of support to workers that was outside the union structure. Rejection of our course was also based on lack of interest in health and safety, according to a questionnaire circulated among students in the program (most of whom are rank-and-file unionists).

The setbacks were many, but the “union” approach has yielded some fruit. Articles in the *Missouri Teamster*

(possible because of a sympathetic editor) have led to a few meetings. A number of unionists have expressed interest in participating in a conference on health and safety. And two union contacts generated work with specific plant situations.

Some Practical Experience

In late June of 1974, I got in touch with Gene Appelbaum, the International Rep for Region 5 of the Oil, Chemical, and Atomic Workers Union. He told me of an NL Industries pigment-manufacturing plant with 140 workers whom he represented. Some of the men there (no women were employed in the plant) thought they had a problem with lead poisoning, and some preliminary blood tests conducted by the International Union had confirmed this. Gene was obviously concerned and well-informed, and he was glad to have an offer of help in their struggle. But he emphasized that it was hard to motivate the workers at NL to be interested: before the union blood tests, he had walked through the plant and personally talked to every worker, yet only twenty-eight had participated in the tests.

One of the WHASP volunteers was Don Selig, a biochemist who had worked on occupational health and safety with Nader's Health Research Group in Washington. Don's forte is lead poisoning, so we had excellent expertise to deal with this local's major health problem.

When we started working on the situation the local was on strike, for the first time in over forty years. On July 3, Don and I met with Gene, the local union officers and the rest of the negotiating committee (all but Gene were rank-and-file workers). Don showed them some reports he had done for other unions when he was with HRG, and the workers talked about conditions in the plant. Our meeting was cordial and enthusiastic, and it seemed that good rapport had been established. Gene had entered several bargaining demands around health and safety; Don suggested some improvements in these, and we agreed to work together.

Negotiations ended that day, with the health-and-safety clauses diluted to tokenism. We attended the contract-ratification meeting on July 5, where 67 of the 104 workers present volunteered for blood-lead tests (we ran out of tubes before they ran out of volunteers). Don spoke to the meeting as we drew blood, and an active question-and-answer exchange took place. Again, our rapport seemed to be good.

For the next five months we worked on the NL situation. During the strike a few WHASP people had talked to workers on the picket line who told them of the hazards inside the plant. We attended several union meetings, gathering information, presenting information and answering questions. We examined records from an OSHA inspection two-and-a-half years before [4]. We obtained signatures of twenty-eight workers on letters to the company doctor, requesting that he turn over their medical records (including blood-lead levels) to a doctor volunteering with WHASP. (He never did.)



WHASP volunteers taking workers' blood for lead tests.

Signs of trouble first showed at the August union meeting. I was there with only about a dozen workers. I was told that this small number was typical of the state of apathy or alienation within the local. One older worker launched a salty verbal attack on me, to the effect that they didn't have any lead-poisoning problem and even if they did, it was none of my business. My rebuttal was honest and firm, from my point of view; much later someone told me it had sounded "militant". I said that everything I had seen and heard about their situation — much of it from themselves — convinced me they *did* have a problem, and I was involved in it only because they wanted me to be.

At the September meeting it was heavier. Don accompanied me, and we were confronted with a charge of communist ties on the basis of our affiliation with the American Friends Service Committee. Both of us denied this charge. The young worker who queried us about our motivation for doing this work was, by vote, unsupported by the others; but according to reports from other workers, he continued his campaign against us inside the plant.

I had individual contact occasionally with several different workers, but I was in touch regularly with only one, the president of the local, who continued to be open and friendly. We planned to run a second series of blood tests in December, to compare results after five months of work with our earlier results after five weeks on strike. The December meeting had been chosen because a union dues in-

crease and new officers were to be voted on, and a larger than usual attendance was expected. We sent individual letters to each of the 67 original blood test participants urging them to appear for retesting.

Our five-month-long campaign came to an anticlimactic end in December. Only about 25 members came to the meeting; 15 of them gave us their blood, 11 of whom had participated in the first test in July. We had prepared a written report to the local and had planned a discussion of tactics to try to get changes in the plant, but were quickly shuttled off the agenda and passed by. The older worker who had first attacked me in August was a dominant figure in the scene. (The young red-baiter of September was never seen by us again.)

A week after this disappointing December meeting, Gene told me the Executive Board of the local had voted to discontinue working with us, because NL had laid off a few workers and the men were panicked about losing their jobs. He also said that they didn't believe they really had a lead problem — in spite of our proof [5] and their earlier belief to the contrary — because they couldn't see its effects.

The outcome of our work with this local was pretty depressing, although it gave us good practical experience in marshalling resources and in dealing with OSHA, unions, and companies. Our initial good start was made possible by Tony Mazzocchi of the International Union, who referred me

to Gene. Gene's [own] concern and willingness to work on the issue, the optimistic atmosphere of the strike and Don's expertise all contributed to the success we experienced in the early stages of the project. Our downfall came from the hostility of the older worker, who had longstanding power among some of the others, the red-baiting, the conservative nature of much of the workforce (mostly whites from the country towns outside St. Louis), strong company opposition, hard times, layoffs, threats of more layoffs, and a local union that was, like so many, lacking a strong collective participation among the workers.

Some More Practical Experience

The second union plant that we worked with was a very different situation but the outcome was not any better. I spoke to a Textile Workers Union of America meeting of rank-and-file workers representing about eight different small locals. After the meeting, as I walked around passing out literature, a woman in the back row began talking to me about her plant's problem — a sickening smell that came from the injection molding manufacture of small plastic magnets. She feared that it was the recently publicized carcinogen, vinyl chloride (VC). Furtively, she gave me a medicine bottle filled with a dark gray powder which was the suspect agent, and I took her name and phone number.

When I called her the next day, she explained the situation in full. The plant was a small, family-owned business in a distant suburb of St. Louis, essentially still the "country". About 60 people work there, but only 40 of them (all women) were in the year-old union local, and only eight to ten were employed in the Molding Room. The management was very paternalistic and oppressive, the wages were very low, and the union apparently weak. She said that the workers had complained about health and safety to the union from the time they had organized, but that the business agent had only "looked away and walked away". Everyone in the Molding Room was very concerned about the possible danger.

I met with the Executive Committee of the local. They all strongly agreed to "contract" with WHASP to in-

vestigate the situation, and they each took one of our Workplace Questionnaires to make a survey of plant health and safety hazards — for it appeared that they faced multiple problems, as do most workers. We also agreed that I would, by phone call or letter, inform both the business agent and the International Union that WHASP was involved.

The response of the International's Research Department indicated an interest and a willingness to help. The business agent, however, was irate and obstinate. Throughout our association he maintained that a few troublemakers were agitating for their own petty purposes in the plant, that conditions in this plant were good, compared to others and that the "girls" should be happy they had jobs at all.

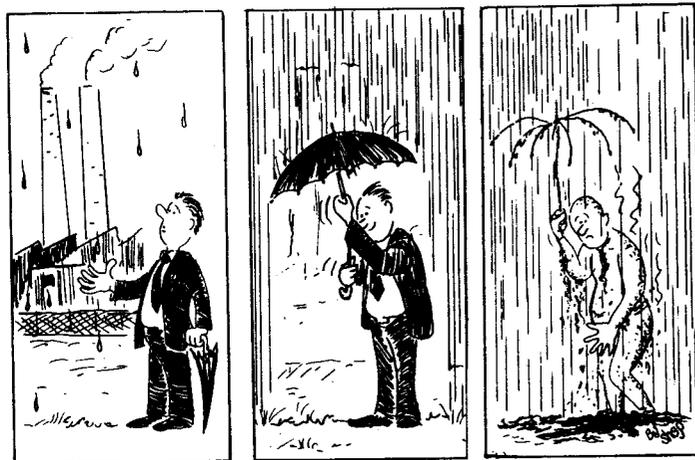
OSHA found airborne lead in concentrations from three to fifteen times over the federal standard; levied a penalty of \$90.00 for this "nonserious" violation; and gave the company nearly a full year to come into compliance with the standard. We accompanied Gene and the local union president to the OSHA office to ask if they had ever re-inspected, and were told that OSHA "usually takes the word of the company" about correction of violations.

We determined that the substance was a compound of 16% polyvinyl chloride. Under union aegis, we took a chemical engineer into the plant and sampled for VC with a Universal Tester, which indicated the presence of no VC above ten parts per million, the limits of that instrument. We extracted from management an agreement to have its insurance company do more sophisticated tests for VC in the near future. We made up educational materials and took them to union meetings which were attended by about half the membership, many of whom were concerned and willing to confront the business agent's negativism. We wrote a report, based on our own research and the information we got from the workers via the questionnaires, about the many hazards in the plant and what they might do about them.

The company countered early in the fight by forcing the women to wear hated respirators and by tightening rules and supervision. Then, one surprising day, OSHA inspectors showed up at the plant answering an anonymous employee complaint about the respirators. The workers had not yet decided as a group to call OSHA; no one ever determined just who it was who "bolted". Many people suspected management did it.

Management's response to OSHA's visit was to close the plant! The owner, a "self-made-man", said that the plant was closed pending results of OSHA's VC test, which would be two weeks. He further said that if he was issued a penalty he would remain closed permanently.

OSHA found 0.2 parts per million VC, a level well below the government standard. The plant was re-opened, but the method of recalling workers placed in jeopardy many people's seniority and hence protection. The whole event so frightened people and diverted attention from health and safety that WHASP was unable to go any further with this local, beyond maintaining sporadic contact



with a few individuals. Those workers who were most active in the struggle were faced with increased harassment by management.

Some Lessons

Common to our aborted experiences with both the OCAW local and the TWUA local were two significant problems: a group of workers that was less than united in a commitment to struggle for workplace control, and economic layoffs. The latter is bound to be a continuing problem. But WHASP theoretically has more control over the former problem, by choosing more carefully which groups of workers we direct energy towards. I say "theoretically" because: (1) there seem to be very few groups of workers that *are* together, and (2) as a little-known organization coming apparently from nowhere, we are not in a strong position to be choosy.

Nevertheless, our experiences gave us an increased awareness of the limits of working with people who do not function as part of a strong plant organization. But limits do not mean that nothing can be done. I think that in both of the experiences recounted in the previous pages, WHASP positively affected people and their situations.

Outreach – The "Rank-and-File" Approach

The other main method [6] we have used to reach rank-and-file workers has been to go straight to workers, without going through unions. This approach is generally limited to those people we know or know of. We've only recently begun to put much energy into this approach, and it's slow going.

We've been in touch with rank-and-file groups at about five or six shops, most of them large industrial plants. These groups of rebellious union members are small, and layoffs have hurt them, but a few show some promise. One group borrowed our noise meter and hopes to use results of their clandestine tests to rouse interest among other workers.

Several of the groups put out newsletters in which they're beginning to educate around health and safety. We've contributed articles to two such newsletters, as well as to a citywide rank-and-file newspaper. We plan soon to publish our own newsletter to be circulated among these groups and other rank-and-filers we know, raising the issues and helping to overcome people's isolation by spreading the word of each other's activities. Other plans include coordination of health and safety workshops among workers within particular industries, and leafletting at plant gates.

We're also in contact with a number of individuals who aren't part of organized, active rank-and-file caucuses but who have a concern with their health and safety conditions. The possibility of action on the part of such individuals is remote, especially in these economic times. However, keeping contact with them is important because of the chance that they may be able to develop groups. Information we can give them may be helpful in their efforts to do this.

Approaches to Outreach: Conflict and Resolution

In making our services available to people, two approaches, dubbed "union" and "rank-and-file", have been tried during the first year. Within WHASP, there has been considerable conflict over which is more desirable and hence deserves priority.

The argument for the "union" approach is that unions can't be ignored; they do have power and can be instruments of pressure against a company; they possess valuable resources, most often at the international level; some unions, as institutions, are concerned about health and safety, and even within those that are not, there are individuals who are; and working through unions enables us to reach people that we don't know, not normally accessible to us except perhaps through our general publicity.



Those most supportive of the "rank-and-file" approach emphasize several points; most unions are controlled by self-concerned men removed from the rank-and-file; unions traditionally concentrate on bread-and-butter issues and are not willing to struggle around control of the workplace; relating to rank-and-file workers through their unions will identify us, in the eyes of those workers who are most likely to take risks for the sake of change, with the unions from which they feel alienated; the only workers we'll reach through unions are those who have a union orientation, i.e. in St. Louis a conservative orientation; spending energy on dealing with union bureaucrats takes energy from building relationships with rank-and-file. WHASP should seek out those groups of rank-and-file workers who are actively engaged in struggles for workplace control, and support them.

Much of this conflict between approaches emerged out of a proposal I made to co-sponsor a health and safety conference with several unions and environmental or medical groups. Based on the experience of health and safety projects elsewhere, I reasoned that such a conference would give interested unionists ideas about how to work on health and safety; it would bring medical/scientific people together with workers; it would increase our credibility in establishment union circles; it would provide us with contact with many workers we might not otherwise reach, and give them contact with each other; it would probably generate further activity. A few people on the Task Force agreed with my proposal, but a few others were opposed. Opposition was based primarily on unwillingness to align ourselves with union bureaucrats because of the fear that truly militant workers would then not trust us. The counter-proposal was to develop rank-and-file contacts at a grass-roots level *first*, securing relationships with rank-and-file caucuses, and then, at some future time, to hold a conference which might aid our relationships with union bureaucrats. During the discussions about what course to pursue, the dualism between "union" and "rank-and-file" approaches became clear, if somewhat exaggerated.

As of this writing (April 1975), resolution of this conflict has been to suspend the conference and concentrate most energy on "rank-and-file" organizing, with the intention of re-evaluating our position in a few months. The "rank-and-file" approach has been slow because it has been difficult to set up meetings with groups, many of which have been more concerned about layoffs than health and safety. Because it is slow, I've had time to pursue some "union" channels as well.

Our experience so far has shown the superiority of neither approach. My overall sense is that both approaches should be implemented, that no doors should be unnecessarily closed on the basis of rigid definitions of WHASP. Yet certain principles ought to be observed, two of which are: (1) it's worth reaching workers at many different levels of consciousness, not only those who are most militant, and (2) those workers who *are* most militant deserve support. Reconciliation of these two principles can sometimes be difficult, but it's worth hassling about.

Ultimate resolution of the conflict between approaches will come out of WHASP's continuing practice, as three questions are answered:

1. Will both paths be possible, in terms of time and human resources?
2. Will both paths be possible, in terms of WHASP being accepted by both unions and rank-and-file groups?
3. Will both paths be possible, in terms of WHASP's conscience and principles, as the project is confronted by situations in which unions may take more conservative positions than their members?

After one year WHASP has assumed the beginnings of self-definition as a project controlled by a very small group of concerned activists and independent of any union or rank-and-file group. This definition has arisen out of the reality of our experience and the judgments of the people involved and should be seen as being open to change as new experiences and people contribute new knowledge.

Judy Day

FOOTNOTES

- [1] The Workers Health and Safety Project is a program of the American Friends Service Committee.
- [2] ACOSH is Area Committee for Occupational Safety and Health, such as CACOSH in Chicago, PACOSH in Pittsburgh, etc.
- [3] Most unions in St. Louis are very conservative. Only a few - Teamsters Local 688, the UAW, and Amalgamated Clothing Workers - have liberal reputations.
- [4] OSHA found airborne lead in concentrations from three to fifteen times over the federal standard; levied a penalty of \$90.00 for this "nonserious" violation; and gave the company nearly a full year to come into compliance with the standard. We accompanied Gene and the local union president to the OSHA office to ask if they had ever re-inspected, and were told that OSHA "usually takes the word of the company" about correction of violations.
- [5] For the 11 workers participating in both tests, results were as follows:

Blood Lead	Percentage of Those Tested	
	July	December
Over 40 $\mu\text{g}\%$	54%	72%
Over 50 $\mu\text{g}\%$	18%	45%

Blood leads increased an average of $23\% \pm 4\%$ (S.D.) per person between July and December, after five months of work. Hematocrit values dropped an average of $9\% \pm 1\%$ and hemoglobin values dropped an average of $7\% \pm 1\%$. Blood-lead values greater than 50 $\mu\text{g}\%$ are unhealthy (H.A. Waldron, *Ach. Env. Health*, 29, 271-273 (1974). ($\mu\text{g}\%$ means micrograms per 100 milliliters.)

[6] A third method of reaching people has been publicity through various media.

NOTICE

Anyone planning to attend the American Chemical Society co-sponsored Congress in Mexico City, Nov. 30-Dec. 5, 1975, who is interested in participating in SESPA/SftP activities there should write to:

T. Goldfarb
Chem. Dept.
SUNY
Stony Brook, N.Y. 11794

III. San Francisco Bay Area

BACOSH is an organization composed of working people, students and professionals which has been working on health and safety issues for about two years. The primary effort thus far has been to provide information and support to workers who are trying to deal with on-the-job health and safety conditions.

Projects

Our first project was a five-week course on occupational health, covering such topics as dusts and chemicals, physical hazards, emotional stress, legal resources and techniques for shopfloor organizing. At each session, which generally attracted thirty to forty people, there were both "experts" (professionals and students who had researched a topic), and workers who spoke about their experiences in meeting and dealing with problems. The course served a good educational purpose, but no long-term projects resulted from it.

Since this course, BACOSH has been involved in several activities. Presentations were made to union meetings about particular hazards, organizing techniques and legal methods for change. Fact sheets on various hazards (including asbestos, beryllium, degreasing solvents, welding, noise) were written and distributed to workplaces, where workers found them useful in organizing to form health-and-safety committees which could confront management. These fact sheets were different from government literature in that they frequently criticized the recommended standard and discussed possible long-term hazards.

A second course was given about a year after the first one. The format was generally similar, although it was expanded to cover such topics as California OSHA (the California Safety and Health Act, as well as the organization charged with enforcing that law), a critique of workers' compensation, collective bargaining strategies, and problems particular to office workers and health workers. The health-workers' session was especially well attended, but we were disappointed that the course as a whole attracted only about as many people as the first one. We decided that more people could be reached, for instance, by short presentations at union meetings.

One of our recent projects has been working with long-shoremen on the carbon-monoxide health hazard. We have provided information and showed workers how to use a universal gas detector to make readings on the docks, where some excessive carbon-monoxide levels were found. A presentation made to a stewards' meeting was received with enthusiasm, resulting in the union asking for a report on carbon monoxide for their newspaper and purchasing three gas detectors. This project has

expanded to include other groups of workers having problems with carbon monoxide. So far, our activities with these workers, who include warehousepeople, workers in an airport parking facility, and highway-maintenance people, have been largely educational. We hope, however, to be able to bring the diverse groups together for one focused political activity in the future.

Other projects being seriously considered at this time are a study of California OSHA, including collecting complaints and gathering support for demands to make OSHA function properly; working with the California Homemakers Association (a union of domestics, household workers and attendant-care workers), and a project to combat unsafe working conditions at an Oakland shipyard.

Problems

Initially, one problem we encountered was tension between the "professional" people in the group (doctors, lawyers, etc.), the rank-and-file workers, and persons who held some higher positions in the labor movement. This was partly relieved when the first course went well and it became clear that the professionals could demystify their area of competence and work as comrades rather than as "experts". Important lessons were learned on how to use technical skills and information in political activities, and about the need to struggle against bureaucratic manipulation.

We are currently trying to deal with the problems of meetings being long and boring, which is especially discouraging to people with limited time who are trying to do serious work on health and safety.

We have also been struggling over the issue of whether BACOSH should function primarily as a service organization, or concentrate mainly on political discussion and activity. The



emerging viewpoint is somewhere in between, i.e., that BACOSH should provide relatively simple services (e.g., lending monitoring instruments, performing simple medical tests, doing reports on hazards, giving legal advice) which are directly useful to people doing organizing. Our development must go through several stages, and much of our activity at the present stage may not afford an opportunity to inject a high level of political content. We feel that it is of primary importance for working people to have confidence in the organization, and this will initially be gained by what we do, not by what we say.

The Future

We have high hopes for our project around California OSHA. It could turn out to be a real focus for BACOSH, as well as the start of a political activity that could attract broad popular support. We will try to bring out who the state government serves, and the conflict between industry's desire for profits and the needs of working people, as well as trying to stimulate significant improvements in health and safety.

Author's Note

I have tried to highlight briefly the successes and the problems which BACOSH has had. The questions touched on are important ones for SftP folks interested in serious political work. I have tried to be as accurate as possible in reporting BACOSH activities, debates and problems. The analysis and suggestions of where to go represent my opinions only.

The fact sheets mentioned in the article (five cents per sheet) and other information can be obtained by writing to BACOSH
Box 24774
Oakland, Ca. 94623

(At present, due to finances, we have neither an office nor any paid staff.)

Joel Swartz

After this article was written we learned that BACOSH had adopted a set of principles of action. We have decided to include them as an addendum to the article since we believe that they help clarify the present emphasis and strategy of the organization.

SUGGESTED PRINCIPLES OF ACTION FOR BACOSH

1. The services provided by BACOSH should be aimed at aiding workplace activists in improving health and safety conditions. We cannot and should not try to provide a whole range of free services to large numbers of people. However, certain services (e.g. research on a hazard, legal advice, presentations) can be very valuable to people working in this area, and we should try to provide these.
2. For complex services that involve a lot of labor, we should try to find "honest" institutions which are sympathetic to our aims, to provide these at reasonable costs. We also should, where this is reasonable, encourage workers groups to pay BACOSH for certain services. Finally, we should make a principle of trying to force the state and Federal Governments to provide some of these services, realizing that we cannot rely on this happening.

3. Our strategy should be, as much as possible, to provide working people with the relevant information and tools, so they can actively use them to bring about change. We should try to demystify all the skills and concepts involved in our work. We should not be a group that simply acts in behalf of working people, nor should it be our strategy to bring about change by wheeling and dealing with bureaucrats.
4. Our projects and the people working on them should have accountability to the organization. We should not be in the business of simply referring people to experts over whom we have no control (although we might provide this service in some cases). Similarly, people who are invited to be BACOSH speakers should have accountability to the group when acting in this capacity.
5. However, in any project involving an activity at a particular workplace, the people at that workplace must make all the decisions that immediately affect them. BACOSH may offer advice, but it should certainly not presume to tell people what to do in these cases.
6. We should have a set of priorities for choosing projects, and people in the group should make some commitment to work on projects chosen by the group. There should be a range of projects to suit many people, and people should be encouraged to create new ones. However, there must be some collective decisions made as to what projects to work on, or there is no point in having an organization in the first place.
7. Criteria for choosing projects should include: how useful we can be, the availability of alternative help or services (e.g. from the union involved), degree of ability to work with the rank-and-file, potential for some political action to develop out of the project, timeliness of working with a certain group).
8. We should carry out internal education so that members have an opportunity to gain competence in many areas involved with health and safety.
9. We should structure BACOSH in such a way as to make it possible for large numbers of people from different backgrounds to participate. Different people will be able to participate with different levels of commitment and time, and we should make it possible for people with small amounts of each to participate. We should actively make efforts to encourage new people to participate.
10. BACOSH should primarily be an activist organization, and the coordinating committee should make every effort to link up people with activities they can work on. It is important that we discuss what we do, but BACOSH is definitely not a debating society.
11. BACOSH should take on a project around Cal OSHA as a priority for the near future. The project can unite various groups, provide some political expression and redress for the problems which people find, and also can provide some continuous activity for a large number of people. This project can complement the work people do in other projects.
12. Where possible we should try to coordinate activities with community groups that have similar interests, e.g. fighting pollution from a factory where there is workplace pollution.
13. We should try to involve unorganized as well as organized workers in our activities.

A New BACOSH Pamphlet on Chemicals in the Workplace

Title—*Danger: Silent Killers at Work*

Price—1-14 copies, 50 cents each
15 or more, 35 cents each
(Make checks payable to Charles Hansen)

Order from—Box 24774
Oakland, CA 94623



AT VINYLEX

The following article includes a critical discussion of a negative role played by representatives of the OCAW in organizing efforts at a small plastics factory in Tennessee. We wish to point out that the OCAW has been one of the more progressive U.S. unions, particularly in the area of occupational health. We hope the events described below are a result of a local situation and do not reflect a retrogressive tendency in OCAW's international operations.

Introduction

In early 1975, when the OSHA inspector visited Vinylex Corporation in Karns, Tennessee, management panicked. The inspector was occupied in the front offices while crews of managers and workers tried to get the place in shape. Water was mopped up, floors swept clean of plastic compounds, products were restacked in the storage areas, and junk was removed after lying around for months. When the inspector came out he was guided by a cluster of management people, who directed his movements and conversations as much as possible. He appeared to look closely for obvious safety hazards — hazards which could exist in any factory — but conducted no open tests of air quality or of hazards related to specific jobs. Vinylex, with its brand-new physical plant, passed the test.

Conditions at Vinylex

Vinylex, a plastics factory which produces vinyl products made in extruders, is clearly a dangerous place to work: workers are burned by machines operating at 300 or 400 degrees F. and often receive injuries because of inadequate tooling. Since polyvinyl chloride (PVC) was not actually manufactured here, there were not large amounts of vinyl chloride (VC) around. (Vinyl chloride has been found to cause angiosarcoma, a very rare form of liver cancer, in exposed workers in PVC plants.) However, some VC may be formed by the decomposition of the PVC at the high temperatures of the extruders (my job was to operate one of these). Also, the powdered plastics (which had a distinct foul odor) and chemicals used at Vinylex often caused severe skin irritations and the fine dust could be inhaled.

Organizing Efforts and Problems

Occupational health and safety seemed to be an issue which could be organized around. We called in an organizer from the Oil, Chemical and Atomic Workers Union (OCAW), from nearby Oak Ridge, where he had been engaged in an attempt to organize professional scientists. He told us that he would supply literature on the health hazards and bring in one of the OCAW

staff people to talk to us about health and safety. Neither ever materialized. He suggested that he and some of us (concerned workers) go around to visit and talk to the rest of the workers (there are about 200 employees). This would have been time-consuming, since most workers lived in the surrounding countryside, quite far from the plant and from each other. Anyhow, it never happened either.

Workers that I spoke to rarely responded enthusiastically to health and safety issues, although many were more aware of the hazards than I. The typical response was: I know it's dangerous, but I've got to work to feed my family, no matter what. This is a concern which is impossible to refute. In times such as these, a worker will rarely quit his or her job because it is unsafe.

There were other organizing difficulties: Vinylex has a high turnover rate of production workers; few workers had been there more than five years — most who had lasted that long were in management or some supervisory position. Consequently, few workers had experienced long-term direct exposure to the chemicals we handled. Also, Vinylex had prior experience in keeping unions out of the plant. At the first stages of the organizing attempt, management people were actually nicer to the workers. Then later, the repression hit — a worker's product quality was severely criticized if he was seen talking to anyone involved in the organizing.

Reasons for Failure

In the end our organizing campaign was a failure. Union assurances of job security were refuted when management won a test case against a worker who had been fired. Union credibility (which was low in this area at the outset) was destroyed when their claims of a victory in that test case were proven false. Tales of how a union voted in once before had failed to gain pay raises after long and costly strikes convinced many workers that the case was hopeless. Management scare tactics — ranging from letters from the president to overtly watching employees suspected as organizers — took their toll. There was never even a vote. One by one the ring leaders were converted or eliminated. By the time I was fired (for "misconduct"), the union was not even around to take the case to the labor board. Clearly, Vinylex was only of incidental interest to OCAW. But their failure has set back the causes of unionization and worker safety at that plant perhaps by years. The people who work there, meanwhile, can quit their jobs — if the employment situation ever improves — and perhaps go on to better things, after several years of possible exposure to VC.

Dennis Brubaker



(continued from page 21)

and dust (produced by rapid sewing, cutting, and handling of so much material in one large, open space) causing inflammation of the large airways in the lungs.

I got bronchitis six weeks after going to work there. I don't know if the dust and fine lint caused it, but it sure did irritate it. A lot of women had bad coughs. I'd be in the rest room, coughing, and women would say, 'Honey, I've had a bad cough for years,' or something else like that. One told me she coughs up blood.

Many cotton mill workers suffer from a severe incurable respiratory disease called byssinosis (brown lung). This disease is believed to be caused by a reaction to a biologically active substance (researchers haven't isolated the exact cause) in the brittle leaves around the cotton ball. When cotton is received at a mill, it still contains a lot of these leaves, and in the processing, a great deal of dust is produced, including tiny particles of this cotton trash. Workers who handle the cotton in the early stages of processing have been found to have the highest incidence of byssinosis. An estimated 17,000 active carders and spinners suffer from the disease. Many others have retired early because of disability. Symptoms are shortness of breath; a tightness in the chest (which is worse on Monday morning, or on the first exposure to the dust after a time off) and a cough, which frequently produces phlegm.

Byssinosis (which has been a recognized, compensable disease in England for more than 30 years) is not a compensable disease in most states. In those where it is, most

cases have been settled quietly, out of court, because the companies want to avoid publicity which would encourage more claims. Doctors willing to diagnose byssinosis — or even admit that it exists — are more the exception than the rule!

Heat

Another source of health problems affecting cotton mill workers is heat. Certain sections of cotton mills, such as the carding and spinning rooms, are kept hot (about 90 degrees) and humid, in order to achieve the proper conditions for producing good-quality thread and material. Many of the mill workers we've talked with have brought up the heat as a major irritation; this woman worked for 26 years in the card room:

They had humidifiers, flying over our heads, to dampen the cotton so it would run good. And they had an old fan going around, blowing at us from the top down to the bottom. I perspired a whole lot — I come out wet, my uniform wringing wet, every time I come out of the mill.

Heat is not just an uncomfortable nuisance. Workers develop heat fatigue — an emotional response of irritability and tiredness which affects women on the job and at home.

Chemicals

Industrial chemicals — over 15,000 of them — are a major health hazard throughout industry. Thousands of new chemicals, most of them untested, are introduced into industry every year. Unfortunately, garment workers are among those women being exposed to both known and possibly dangerous chemicals.

Formaldehyde, which is used in permanent-press material, can irritate the eyes, throat and respiratory systems, sometimes to the extent that allergies develop, causing nasal congestion or asthma. Formaldehyde also can cause dermatitis, an itching and inflammation of the skin—a frequent ailment of women who handle treated material.

The Amalgamated Clothing Workers union, in agreement with the National Institute of Occupational Safety and Health, is conducting a study of worker exposure to formaldehyde, trichloroethylene and perchloroethylene. These are chemicals used in removing basting and in dry cleaning; they can cause liver damage. Recent research studies suggest that trichloroethylene, like vinyl chloride, may cause cancer.

Other Hazards

Many other hazards exist for women in the cotton mills and garment factories: most sewing machines don't have needle guards to protect workers' fingers and eyes, there is poor ventilation, poor lighting and practically non-existent sanitation.

In fact, like most workplaces, the health hazards are numerous — too numerous to all be dealt with here.

Organizing Around Health and Safety Issues

What is needed, of course, is for women to organize to change these conditions — those at the root of their oppression, and those which are the symptoms of it.

The two industries we have been discussing have been notorious for their resistance to organizing efforts by workers. People in many of these plants haven't been able to win union recognition, a living wage, seniority rights, or the simplest grievance procedure, much less a safe and healthy work environment. There are some indications that workers may soon begin to reverse this history with the influx of Black workers in significant numbers into these industries, and with the rising militancy among some unorganized workers.

One of the indications that things are changing is the recent formation of the Carolina Brown Lung Association, an organization of active and retired mill workers, with chapters in North and South Carolina towns. This group, which is being aided in its efforts by the Textile Workers Union of America (TWUA), hopes to force changes in state workmen's compensation laws, and bring about stricter enforcement of cotton dust regulations, better benefits for workers, and a more stringent dust standard which would reduce the danger of brown lung. But, as expected, companies which long opposed organizing efforts by the TWUA are working hard against the campaigns of the brown lung movement.

The struggle for union recognition and safe healthy workplaces is a tough fight; one in which Southern mill and garment workers, women and men, need all the help and support they can get.

Fran Ansley and Brenda Bell

FOOTNOTES

[1] Noise, and the stress that occurs with it, affects workers' health adversely, causing hearing, balance, circulatory, heart, and digestive problems. Federal OSHA hearings are currently being held on proposed noise level standards for industry which organized labor considers too lenient.

REGINA

Regina

Is a girl

In a school

In a slum

In a world

With paint chips, blues

And three-dollar shoes.

Dennis Bernstein

ABOUT CACOSH

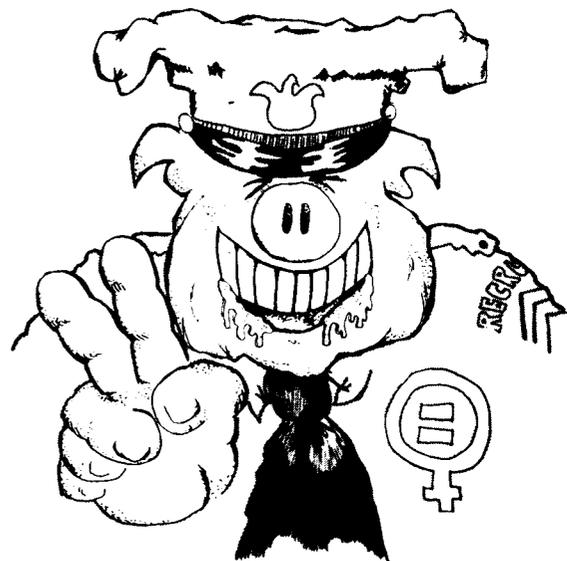
The Chicago Area Committee on Occupational Safety & Health (CACOSH) is a coalition of trade unionists and medical, technical, and legal workers. The organization was formed in 1972 and now includes workers from the UAW, OCAW, UE, USWA, Machinists, Asbestos Workers, Meatcutters and Glass Bottle Blowers. CACOSH does both service and political work. We provide technical and educational assistance to local unions and groups of workers who are working to improve the health and safety conditions where they work. We're also actively involved in struggles to improve OSHA and workmen's compensation in Illinois. A successful two-year fight to kill the Illinois State Plan and return enforcement of OSHA to the federal government was led by CACOSH. If you would like more information or a copy of our monthly newsletter, write:

CACOSH
542 S. Dearborn #508
Chicago, IL 60605

WOMEN: 75¢

*The Recruiter's
Last Resort*

by Dina Portnoy



Order from: RECON, P.O. Box 14602
Phila., PA 19134

Industrial Safety & Health in PUERTO RICO

Introduction

The Caribbean island of Puerto Rico is one of the few colonies still existing in the world. The invasion of the island by USA military forces in 1898, during the U.S. war with Spain and Cuba, marked the beginning of this colonial relationship as well as one of the first imperialist adventures of the U.S. government.

During the first 50 years of U.S. domination, the Puerto Rican colony was a source of agricultural raw materials for the U.S. mainland and during that same period the production of sugar cane was by far the most important economic activity on the island. Throughout those years Puerto Rico produced between 10 and 15 percent of the sugar consumed by the U.S.A., most of which was exported in a crude state to be refined on the continent.

During the last 25 years Puerto Rico has served as a source of fossil fuels, petrochemical raw materials and pharmaceutical products for the mainland. With this change came a new wave of advanced technologies. Presently more than 60 percent of the 450 thousand barrels per day of crude oil and naphtha imported into the island are exported to the U.S. continent, mainly in the form of gasoline and petrochemical raw materials. Puerto Rico is, together with Japan, the third largest petrochemical center in the world, second only to the Rotterdam-Antwerp and U.S.-Gulf Coast areas. More than 95 percent of this production is converted into end products of consumption in the U.S. mainland. In addition, more than \$500 million invested since the mid-sixties in the production of basic pharmaceutical products has converted the island into a huge pharmaceutical center.

As a consequence of the introduction of these technologies the total consumption of energy in Puerto Rico has multiplied (absolute numbers) 15 times in the last 25 years. Energy per capita consumption has multiplied eleven and a half times in the same period of time (from 1.96 to 22.6 barrels of crude oil). Energy consumption per square mile of active land (urban and arable lands) has multiplied 25 times in the last 25 years (from 350 to 8,770 metric tons of crude oil). Only five countries in the world have a higher energy consumption per square mile of active land than Puerto Rico.

With the introduction of these newer technologies and the changeover from an agricultural- to an industrial-based economy, occupational safety and health has become

an important problem in Puerto Rico, though it is conventionally ignored. It is easy to understand that the unending lines of unemployed workers and the fact that only 15 percent of the labor force is organized in unions make it easy for the employers to look the other way in matters of industrial safety and health. Several striking examples may help to explain the real situation in Puerto Rico. As industrial safety poses a health menace inside as well as outside the examples presented will be explained in terms of the hazards for those in the plant and those outside of the plant.

Health Problems Inside the Factory

Mercury poisoning—In the town of Juncos, at the eastern end of Puerto Rico, Becton Dickinson operate a factory which manufactures mercury thermometers. In the entire plant, according to data obtained from court litigations, there is not one device installed to protect workers from contact with mercury. Nearly 80 percent of the plant workers have reported sick. The majority are young and some have worked as little as a year. Many can never return to productive labor. All are automatically replaced. The factory pays no attention to official warnings calling for modern preventive measures even though over 150 cases have been reported as early as 1968. But the entire situation regarding mercury could actually be more serious than this since the extensive use of mercurial pesticides in Puerto Rico's agriculture and a mercury-cell chlor-alkali plant established in the south coast (500 tons per day of chlorine produced) may cause as yet undiagnosed illnesses.

Sulfur dioxide problem—Inside the Commonwealth Oil Refining Company (CORCO) the daily average of sulfur dioxide in the air is often in excess of 530 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$). [1] The federal primary standard is $365 \mu\text{g}/\text{m}^3$ and may be exceeded only once a year. In March of 1970, levels as high as $5,300 \mu\text{g}/\text{m}^3$ were recorded at CORCO's parking lot. Since that time CORCO has expanded its refining capacity by 60,000 barrels per day. Although independent researchers have not actually investigated the presence of respiratory diseases within the CORCO complex, the fact that in communities downwind to the complex serious respiratory abnormalities have already been detected support our belief that these extremely high levels of sulfur

dioxide should be most seriously affecting the respiratory tract of workers within the factory.

Health Problems Outside of the Factory

Chlorine gas—a chlor-alkali plant (Pittsburgh Plate Glass), which began operations in 1971, has had five known chlorine gas accidents in the last three years. During these episodes more than 500 persons living in nearby communities have been treated for symptoms of chlorine intoxication in health centers located along the coast. The repetitive nature of these episodes denotes that little attention has been given to this grave situation. Several of the persons intoxicated outside the facility also work inside.

Sulfate respiratory effects—Although this example may not be considered strictly as an industrial-safety problem, the serious situation in Puerto Rico concerning airborne sulfate combined with the fact that the technology already exists for sulfur recovery justifies, in our view, its inclusion. Since the mid-sixties, sulfate levels known to cause human ventilatory dysfunction (above $10 \mu\text{g}/\text{m}^3$ [2]) have been measured. Pulmonary function studies in places of high sulfate concentrations in Puerto Rico have shown that up to 18.6% of the people in communities downwind

to oil and electricity complexes have obstructive respiratory abnormalities. In samples from communities receiving good medical care for lower respiratory tract diseases, obstructive abnormalities were found to be 4.5%. In samples from communities free from sulfates no obstructive abnormalities were recorded. It must be said that the quantity of sulfur dioxide (a precursor of airborne sulfates) in the air is, in proportion to active lands (urban and arable lands), 9 times higher in Puerto Rico than on the U.S. continent. In spite of this, the Puerto Rican government is trying to relax sulfur-control regulations in Puerto Rico.

Discussion and Conclusions

The health of the Puerto Rican people is being severely affected by industrial hazards. It can be stated that the vast majority of the cases are not recorded as such, or not known at all. Workers are the main victims of the situation since they are often affected both inside and outside of their workplaces. This situation will worsen because the government of Puerto Rico is planning to superimpose upon the realities already described the following projects:

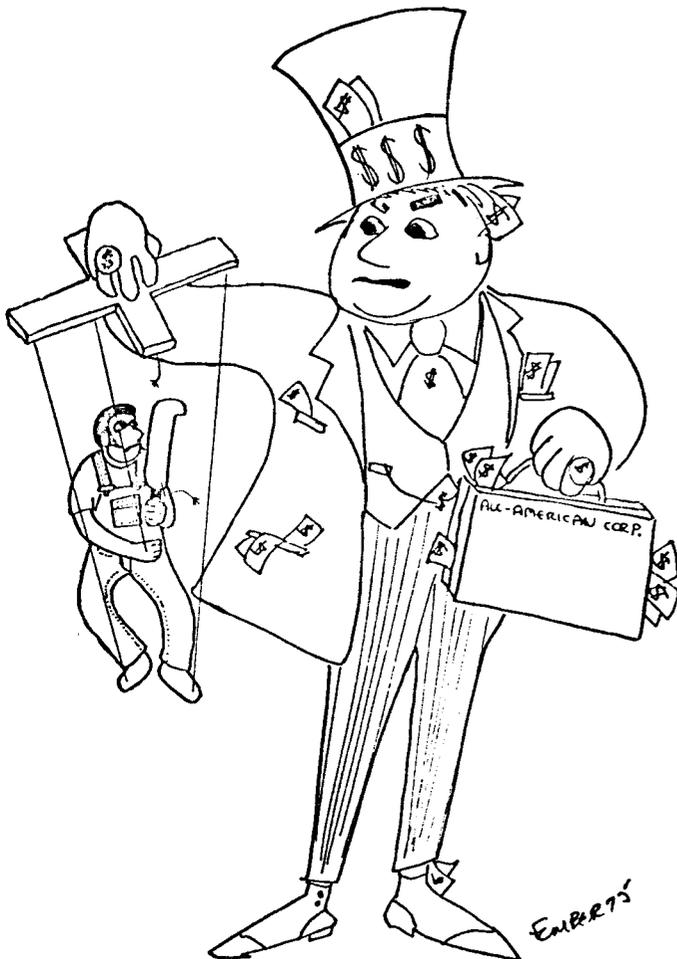
1. the strip mining of copper and nickel deposits located in 40 thousand acres of the center-west portion of the island. The mining will be carried out by U.S. companies such as Kennecott Corporation, American Metal Climax and Universal Oil Products.
2. the establishment of 17 nuclear reactors by the year 2,000 by Westinghouse Inc.
3. a deepwater port with a refining capacity of 1,600,000 barrels per day by 1990 to be controlled by Exxon and Gulf Oil Companies.
4. a near doubling of the present refining capacity of 300 thousand barrels of crude oil per day by the early 1980's.

It seems to us evident that in the case of an island of only 3,421 square miles all sense of proportion and reality has been lost. In the case of the superport alone, even with the best technology, a tremendous stress will be put upon the health of the people. The responsibility of the U.S.-government authorities and U.S.-based transnational companies in this situation is obvious. If they do not refrain from interfering with Puerto Rican affairs and continue pressing for continental ways of development, a critical situation should be expected to develop in the near future. Industrial safety and health will play a catalytic role leading to this situation.

Tomás Morales-Cardona
Gilberto Concepción Suárez

REFERENCES

- [1] Summary of Environmental Data for the Guaypao Area, Prepared for the Guaypao Conservation Association by Environmental Research & Applications (Caribbean), Inc. (July 1970).
- [2] "Health Consequences of Sulfur Oxides: A Report from CHES", (1970-71).



OCCUPATIONAL HEALTH AND SAFETY RESOURCES

Some Worker-Oriented Projects

Boston area:

Occupational Health and Safety Project/ Urban Planning Aid.
—this group provides free assistance to unions and organizers in trying to understand and correct health and safety problems. They have published many helpful fact sheets and pamphlets. Among the most useful of these are *How to Look at Your Plant* (see article excerpted from this pamphlet in *SftP* Vol. VI, no. 4, p17, July, '74) and *How to Use OSHA* (see box on page 4 of this issue)
Address: Urban Planning Aid, Inc.
639 Massachusetts Ave.
Cambridge, MA 02139

Chicago area:

Chicago Area Committee for Occupational Safety and Health (CACOSH).
—for a brief description of this group's composition and activities see box on page 35.
Address: CACOSH
542 S. Dearborn St., Rm 508
Chicago, IL 60605

New Haven area:

New Haven Occupational Health and Safety Project (NHOHSP).
—for a self-critical analysis of the evolution of this collective's work and ideology during its first three years of existence see the report which begins on page 22.
Address: NHOHSP
Rm 701, 265 Church St.
New Haven, CT 06510

Pittsburgh area:

Pittsburgh Area Committee for Occupational Safety and Health (PACOSH).
—this committee of workers, union representatives, students and professionals provides information and support for organizing efforts around occupational safety and health issues.
Address: PACOSH
P.O. Box 7566
Pittsburgh, PA 15215

St. Louis area:

Worker's Health and Safety Project (WHASP)
—for a critical description of this project's first year of activity see the report which begins on page 25.
Address: WHASP
7184 Manchester
St. Louis, MO 63143

San Francisco Bay area:

Bay Area Committee for Occupational Safety and Health (BACOSH).
—for a discussion and analysis of this project's past and current activities see the report which begins on page 31.
Address: BACOSH
P.O. Box 24774
Oakland, CA 94623

Other Sources of Useful Pamphlets

Medical Committee for Human Rights (MCHR)
—the MCHR Occupational Health Project publishes a newsletter and other literature including a **very useful pamphlet**, entitled *Guide to Worker-Oriented Sources in Occupational Safety & Health*. This pamphlet contains an extensive list of projects, films, slideshows, books and other educational materials.
Address: Occupational Health Project/MCHR
558 Capp St.
San Francisco, CA 94110

Health/PAC

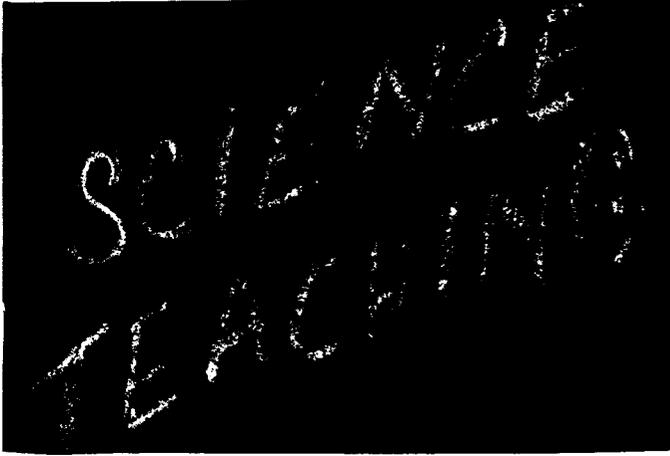
—offers a very informative packet of reprints of articles on occupational health and safety from their regular bulletin.
Address: Health/PAC
17 Murray St.
New York, NY 10017

National Institute for Occupational Safety and Health (NIOSH)

—this federal research agency publishes many free pamphlets providing technical information on a variety of hazardous occupations and substances.
Address: NIOSH
Office of Public Information
P.O. Building, Rm 536
Cincinnati, OH 45202

Some Useful Books

- Work is Dangerous to Your Health* by Jeanne Stellman and Susan Daum, Random House (1973). (Available in paperback from local bookstores or from Oil, Chemical and Atomic Workers' Union, Box 2182, Denver, CO 80201). An extensive handbook of health hazards and what to do about them.
- The American Worker: An Endangered Species*, by Frank Wallick. (Available from the United Auto Workers' Education Office, 8000 E. Jefferson, Detroit, MI 48214.) An analysis of health and safety problems and how to clean things up from the point of view of the UAW.
- Bitter Wages* by J.A. Page and M.W. O'Brien, Grossman (1973). (Available in paperback.) A Nader study group report on the history of neglect in occupational health and safety and the struggle for legislative action leading to the Occupational Health and Safety Act of 1970.
- Muscle and Blood* by Rachel Scott, Dutton (1974). A vivid account of the "industrial slaughter" faced by American workers in a variety of industries.
- Expensible Americans* by Paul Brodeur, Viking (1974). (Available in paperback.) A well researched narrative indictment of the asbestos industry based on a series of articles published in *The New Yorker* magazine.



Teaching about Work

Throughout the past year Joe McDonald and I taught a course on work at Home Base School in Watertown Ma. I am a volunteer, and Joe is a regular salaried staff member. Home Base is a public alternative high school with 100 students drawn mostly from working-class families. It is informal and tries to involve students in individual projects and community work.

Our class had students of all four grades and different reading levels. Meeting once-a-week for 5 hours allowed us to visit work sites and also to have time for discussion and class work.

We wanted our students to meet a lot of working people at work, to see and understand their problems, to recognize and analyze their common concerns. We also wanted them to feel more comfortable with adults, to question and challenge them, and to understand how organizing can effect change. The students kept journals to record their reactions and ideas.

During the first weeks we visited the Peter Bent Brigham and Children's Hospitals, and the local CBS TV station. The public relations guides dominated and bored us with their dry technical information. We wanted to know how workers felt about their jobs, but the "professionals" we talked to seemed reluctant to share more than facts, and our guide at Peter Bent Brigham whisked us past the hot basement laundry so that we couldn't talk to the Black women there who folded linen very slowly. The impersonal size of these places and their mystifying technology contributed to our tiredness and boredom.

After reading about factory jobs in Studs Terkel's *Working*, we went next to big assembly-line plants and smaller piece-work factories. At the GM Assembly Plant in Framingham, Joe and I occupied the guide while the students hung back to ask questions of the workers. One man called his work the most boring in the world but said he stayed on because he had gotten married and needed the pay. There were once women workers in this plant, but by the time we visited they had all been laid off. The men complained about women workers as "trouble". The girls

in our class were catcalled as we walked along some of the eight miles of "line". At least one girl could see why:

I think the reason a lot of those men were acting so ignorant is that after you work at a job you hate and is bad for you for a long time, you become as bad as your job without knowing it.

Leaving the plant, some of the students complained of headaches from the noise and smoke.

At the Dorothy Muriel Bakery, our foreman-guide talked mostly to Joe, while behind his back the workers on the line threw cupcakes to the students. According to the foreman, "These people could better themselves if they wanted to, but they just don't care." The cake-decorators were the only workers who could stop to talk if they wanted to; one student said that they seemed happier because "they had a chance to be creative."

At the Stride-Rite shoe factory, the highly paid, all male leather-cutters contrasted with the non-English-speaking women who were actually sweating as they sewed endless strings of tongues and soles as fast as they could, their salary dependant on the number they could finish. The Raytheon SAM missile factory seemed more elegant (piped-in music, bright lights, expensive equipment), but the students weren't fooled. A journal entry:

The shoe place had a bad smell, was cramped and was very depressing. Raytheon was clean, bigger, and more cheerful, but it still seemed depressing. People didn't know what they were doing. At the shoe place you could see what you were making, but at Raytheon you couldn't even tell what you were working on.

As the course continued, students began bringing in their own job problems: a boss who used a student's age and part-time status to refuse him a raise, a student who joined a union but then became disgusted by its inaction, a student who had conflicting feelings about having to work at the family-owned store every day. One student quit his gas station job when he finally added up his out-of-pocket wages and found they amounted to just 86 cents an hour. Some students began making important comparisons:

In my hotel job, there was lint all over which probably wasn't good for my lungs and it was very hot. I had to fold the towels quickly before they got wrecked. But if I wanted to I could take breaks in between each load. And sometimes people would help me. So it wasn't as bad as an assembly line.

Joe and I felt a need to counter the cynical, "that's the way it is" attitude that we got from both our students and many of the workers we interviewed, so we brought in a series of people who were working for change. A waitress talked about union organizing at different restaurants, and a woman from the "9-5" secretarial group talked about

organizing at Harvard. A car mechanic told us how her collective rotated all duties so that everyone would learn all the skills. Frank Mirer of SESPA talked about how work is organized in China, showed slides and answered students' questions. A United Farm Workers organizer showed the film, *Why We Boycott* and talked about their fight against Gallo and the Teamsters. We invited the Teamsters to class, but they refused. Four students, acting on their own, not as students doing assigned work, checked all the grocers in Watertown to see if they had scab grapes. They spent an afternoon explaining, arguing and strategizing, and got six promises to stop selling grapes out of twelve stores. The next week they returned to find just one store free of grapes, the rest with various excuses. In the end they gave up, partly because one parent feared Teamster violence, but they had learned a lot: that organizing takes time and commitment, a good clear head, a knowledge of the facts, and an ability to understand the other side.

Meanwhile, in the course, we decided to do some labor history in order to give our students a perspective on change. We read Meltzer's *Bread and Roses*, and each student researched a different strike. It was a great day when some students, as they were telling each other the story of their strikes, called out, "That's like *my* strike. The cops were brought in then too...The union leaders were blamed for the violence then too." This pro-union picture was later qualified by interviews of disgruntled strikers on a UAW strike line, by hearing parents argue over the usefulness of unions the night of a parents' meeting, and by reading of reactionary union actions in the Somerville work-oriented newspaper, *The People's Voice*.

After doing some job shadowing and mock job interviews, our final unit was on economics, including budget and tax projects, comparison pricing, and an analysis of rising food costs. Ruth Crocker of SESPA came to talk to us about the politics of the food industry and about vertical food monopolies. The students interviewed their parents and other adults on the topic of food prices. They heard a whole range of views: "It's the middlemen...it's

the greedy consumer...it's the big bosses at the top...put one less sugar in your coffee...spend less money on Viet-Nam-space-CIA-FBI". The class kept a graph of rising prices at ten local food stores.

We read some radical and conventional economics booklets. A pro-market economy booklet got us into an important argument over whether the consumer decides what will be manufactured "by casting his dollar-vote". We visited conventional economic institutions: a stock-broker, an ad agency, a bank. At the bank, students wanted to talk about issues like embezzlement, credit-card invasion, of privacy, and unfair loan practices.

It is impossible to know exactly how much a course "teaches" the people in it. In this course we wanted to provide our students with the experience of a critical perspective on how our society organizes work and on how it treats its workers. What they concluded, at least immediately, from that experience varied considerably among students. One student, a shoe salesman, still believes in the Horatio Alger myth. Some students are still bored or intimidated by adults, and some students' anger still goes only as far as cynicism. But most students say they are asking more questions now of adults and institutions. One student said that this course had made her see where things are at in this country. And Joe and I feel we are teaching not just "history" or "journal writing" or "how to interview", but how to deal with the world, to see what's wrong with it, and to be part of changing it.

Barbara Beckwith and Joe McDonald

If you want a list of all the job-site visits, films, readings, speakers, assignments and class exercises we did in this course, write B. Beckwith, 8a Appleton Rd., Cambridge, MA 02138.



REPORT ON BOSTON SfP-SPONSORED PANEL DISCUSSION ON RESEARCH ETHICS

The Secular Priesthood and its Ivory Tower Junkies

On May 13, at Countway Library in Boston, a packed audience heard three panelists with various scientific backgrounds describe an ominous trend that seems to be turning scientific research into a "secular priesthood" lending its image as scientific "truth seekers" to those who would "cash in" on it.

The meeting, a Science for the People event, drew teachers, students, and a great variety of scientific and technical workers who were responding primarily to a veritable poster blitz in strategic areas of Boston.

According to Noam Chomsky, one of the panelists, this "priesthood" is allowing its credentials to be used to

"sell" unpopular public policies ranging from war to racial inequality. Chomsky, the author of *American Power and the New Mandarin*, sounded weary as he took up the latest twists in the use of IQ data to "explain" existing inequalities between blacks and whites and between women and men. Calling the whole discussion "malicious" he said that engaging in the debate at all adds credence to the racist assumptions it is based on.

But while pseudo-genetics has had public over-exposure, other areas of scientific interest have been suppressed. For example, there has been a virtual blackout of information in "respectable" sociology on the role of corporations in setting U.S. foreign policy. This has been so consistent that an alien anthropologist would conclude that we were acting under a strong taboo not to talk about what is really happening in our society, Chomsky observed.

Rita Arditti who has written and spoken on the ideology of birth control, described the role of a scientific

elite of conservative white men who have set research priorities so that 85% of the birth-control experimentation takes place on women. Arditti, a molecular biologist and one of the owners of the feminist "New Words Bookstore" warned that research on women becomes perpetuated as "everybody thinks that that is the natural thing to do because that is what is being done". But there is *nothing* natural about this bias, it turns out. On the contrary, there are several "natural" arguments for doing most birth control research with male subjects, i.e. 1. their simpler reproductive systems promise less danger of side effects and 2. their longer fertility period (virtually from puberty to death) and their ability to impregnate multiple partners, create a heightened social urgency for male contraception. But to conclude from this that males should be experimented on instead of women would be just a reversal of the present ridiculous situation, according to Arditti. The point is to make good contraception available to *both* sexes.

She elaborated on the role of elitist male scientists: "Since people in the women's movement have been pointing out these discrepancies in the numbers of contraceptives available for males and females, some scientists have taken it upon themselves to develop the scientific rationalization for female contraception". She went on to criticize misleading rationalizations which give support to doctors who refuse to see women as people but as "bodies and wombs and breasts".

The final panelist was Steve Chorover, an MIT neuropsychologist. He pointed to the alarming growth of research on violence and aggression. "It's not a very flattering image, but a very large number of people I know who are currently working on violence seem to be behaving a little bit like junkies," he said. "That is to say, they have, for a period of time, been kept nice and high over several years with high-quality support to do research on such things as the visual system, the auditory system, the hypothalamus and so on. These connections, as everybody knows, are drying up. It's harder to get a fix from NIH (National Institute of Health) for the kind of work that one is used to doing.

Of course, a great deal rides on keeping one's lab going, and when the connection dries up one is faced, quite literally, with a pair of alternatives: one can go cold turkey and decide that the habit of doing high-level research wherever there is support is a habit to break, or one can get a fix wherever it is available" such as at the justice department or at the Center for the Study of Crime and Delinquency.

"Social Contempt Theory" is the name Chorover has given to the resulting "science" that treats violence between individuals as worthy of study but violence by a government or military leader against an entire nation as outside the area of serious inquiry.

The forum seemed to serve its purpose: it raised clearly the issues that hide behind a science that likes to describe itself as value-free and neutral.

David Chidakel

REPORT FROM THE ANN ARBOR CHAPTER

The Ann Arbor chapter of Science for the People has been active in a number of projects since last September. A display board explaining the differences between the conservative, liberal and radical approaches to the food and population issue was constructed and set up in the Zoology department at the University of Michigan in March — much to the department's dismay. The predictable response of departmental officials occurred and the display was ordered removed on the grounds that it was political and not scientific. There ensued an equally predictable response by liberal faculty members to our protests that the department had allowed other obviously political displays to stand (lifeboats in a paper sea with clothespin people struggling in and out of the boats?!?!). The final decision to permit our display to stand came under the traditional liberal line that the university is an open objective forum of ideas. If anything, the whole incident was another example that science cannot be and is not divorced from political interests.

In March the University of Michigan was blessed with

Northeast Regional Conference

The Third Annual Northeast Regional Conference will be held in Voluntown, CT during the three-day weekend of Oct. 24-27 (Oct. 27 is Veteran's Day, a national holiday). The primary task of the conference is to attempt to formulate answers to the nine questions posed by last year's Regional Conference, and listed in detail in *SftP* VII, Jan. 1975. The Northeast Regional Coordinating Committee felt that four of these should be given priority:

Q2: What, if any, should our main strategy be?

Q3: What is the role of the working class, and what is our relationship to it?

Q7: What are the functions of principles of unity?

Q8: What are our programmatic objectives?

The agenda for the conference tentatively includes a critical discussion of the histories of *SftP* chapters, workshops on the above questions (including discussion of the remaining five questions) followed by plenary discussions,

workshops on the *SftP* organizational flyer, the magazine and other topics, as proposed, and a plenary discussion of national organizing.

The conference will run from Friday evening (socializing, sign up for jobs and workshops) through Monday lunch (starts at 1:00 PM). The \$30.00 fee includes meals, a party, and a place to put a sleeping bag. If you really cannot afford to pay this much, please indicate how much you can pay on the coupon. A limited amount of financial assistance is available.

Name	Amount enclosed
Address	Comments
Number in your party	
Arrival date and time	
Departure date and time	

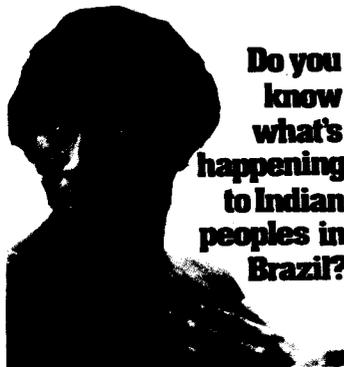
the appearance of Garret Hardin and his lifeboat ethic. We prepared a leaflet and distributed it at Hardin's main lecture and organized a counter-panel discussion the next evening. The appearance of our bulletin-board display coincided with Hardin's visit, and provoked a great deal of discussion.

In April, the chapter coordinated a Food and Population workshop at the University of Michigan Food Week Conference. Gar Allen from St. Louis and Bobbie Lammers from the University of Minnesota provided information for discussion on the oppressive political and economic nature of trade agreements between the U.S. and Third-World countries. Attention also focused on alternative agricultural methods of production more suitable to Third-World development.

From mid-February to mid-March the Graduate Employees Organization (G.E.O.) went out on strike against the University. Science for the People activities *per se* came to a standstill during that time as we all joined the picket lines and other union-support activities. The G.E.O. strike was the longest strike in the history of the University of Michigan and resulted in a very strong contract.

We are currently involved in three activities. First, a study group meets regularly discussing a variety of issues. Second, we are preparing a slide show which presents a Marxist perspective on the food-and-population issue. Third, we are organizing a colloquium on "Biological Determinism". This latter activity results in part from the University's \$1000 response to our request for \$2500 to produce the colloquium in conjunction with the fanfare of what the University calls its Values Year Program at the U. of M. (This is the same year that Henry Kissinger was invited as a commencement speaker, in case you were wondering what values they're talking about.) It will be a five-day colloquium featuring speakers and workshops on topics such as race and I.Q., the biological basis of sex roles, inherent aggressive and competitive tendencies, etc. Speakers will include Richard Lewontin, Val Woodward and others. Tentatively, the proceedings of the colloquium will be published in paperback form as a Science for the People report. We urge all Science for the People members to attend if they possibly can. The colloquium will be held from September 29 to October 6. For further information please write to: John Vandermeer, Zoology Dept., University of Michigan or call: (313) 764-1446 or (313) 971-1165.

Ann Arbor Chapter
Science for the People



**Do you
know
what's
happening
to Indian
peoples in
Brazil?**

"Supysaua - A Documentary Report on the Conditions of Indian Peoples in Brazil" tells what is happening to Brazilian Indians today, and how we can help to stop it.

Copies of this 64-page booklet are available from Indigena for \$1.50, plus 25¢ postage.

INDIGENA:
P.O. Box 4073
Berkeley, CA 94704

I enclose \$ _____ check or money
order for _____ copies of "Supysaua."

More letters * * * *

Dear Carol,

Thanks for the letter and the magazines. I must say that the response and awareness of the "little people" in Trinidad was overwhelming as regards Science for the People. I have been able to talk to quite a number of people, lots of students from the University of the West Indies, Trinidad campus, trade union personnel and research workers. At the present time the trade unions here in Trinidad that are representing the mass of workers in sugar production and oil refining are demanding wages comparable to their international counterparts. The results are mass strikes against corporate multinational Texaco, and Tate & Lyle, the pundits of sugar producers. Fellow researchers here at Caroni Ltd. (biggest sugar producer in Trinidad) are effecting research such that they are suppressing the "little man" by showing him that the cane he grows is inferior in quality, with low juice quality and a greater amount of pest damage. Because of this, Caroni Ltd. pays these farmers next to nothing for their cane (\$US 15.00 per ton) before grinding it. Texaco is raping our resources and paying our labourers next to nothing: the equivalent of thirty U.S. dollars per week. These are some of the problems we have been discussing in our recent meetings. Also the food problem—unequal distribution of food crops where the rich are capitalizing and the poor are starving.

Because of people's response, I thought that selling the magazines at this time would be too capitalistic a move so I issued the five magazines to "contact groups" to circulate after reading.

I believe that once people know about organizing, then it would be easier to introduce the magazine on sale. *But please keep on sending the magazines*—I will do some introductory sales!

We are preparing some articles for possible publication in SftP magazine but they are not quite ready yet. Please let me know what's happening and keep the literature coming.

Stay in touch.

Solidarity,
C. Raymond Mahadeo
Trinidad, West Indies

Dear SftP,

I enjoy your publication very much. I could do without the heavy, Marxian [sic], theoretical articles on the working class, computer programmers, etc. But there is always something of interest in each issue, and usually it is an article that can't be found elsewhere. I particularly liked the report from the World population meeting in Bucharest in your last issue. Keep alive.

Sincerely,
Marvin Shapiro
San Francisco, CA

LOCAL ADDRESSES FOR SESPA/SCIENCE FOR THE PEOPLE

ARKANSAS

Joe Neal
516½ N. Oak
Little Rock, Ark. 72205

CALIFORNIA

* Berkeley SESPA
Box 4161
Berkeley, Cal. 94704
Al Weinrub
429 S. 13th St.
San Jose, CA. 95112
(408) 998-8744

* L.A. SESPA

L.A. SftP
Al Huebner
P.O. Box 368
Canoga Park, Cal. 91303
213-347-9992

Sue Conrad
2026 Rose Villa St.
Pasadena, Cal. 91107
213-793-4767

Shel Plotkin
3318 Colbert Ave.
Los Angeles, Cal. 90066
213-391-4223

*Palo Alto SESPA
c/o Palo Alto Tenants Union
424 Lytton Ave.
Palo Alto, Ca. 94306

CONNECTICUT

N. Sadanand
Dept. of Physics
Univ. of Conn.
Storrs, Ct. 06268

Neal & Margie Rosen
71 Stanley St.
New Haven, CT. 06511

DISTRICT OF COLUMBIA

*Washington D.C. Science for
Vietnam
c/o Abalone
1771 Church St. N.W.
Washington, D.C. 20036
202-462-6930

FLORIDA

Gainesville Research Coll.
630 NW 34th Place
Gainesville, FLA. 32601

Tallahassee SESPA
c/o Progressive Technology
P.O. Box 20049
Tallahassee, Fla. 32304

ILLINOIS

* Evanston SESPA
c/o Tom Rush
1114 Maple Ave.
Evanston, Ill. 60202

* Chapter — three or more people
meeting regularly.

Northside Chicago SESPA
c/o Bob Ogden
1110 Webster
Chicago, Ill. 60614

INDIANA

Stephen Friend
T163 G.R.C.
Indiana Univ.
Bloomington, Ind. 46240
812-337-6862

MASSACHUSETTS

Marvin Kalkstein
University Without Walls
Wysocki House
Univ. of Mass.
Amherst, Ma. 01002

*Boston SESPA/SftP
16 Union Sq.
Somerville, Ma. 02143
617-776-1058

MARYLAND

David E. Chyba
8718 Summit Ave.
Parkville, Md. 21234
(301) 668-0687

MICHIGAN

* Ann Arbor SESPA
John Vandermeer
2431 Darrow St.
Ann Arbor, Mich. 48104
313-971-1165

MINNESOTA

* Science for Vietnam/SftP
Minneapolis Collective
1507 University Ave., S.E.
Minneapolis, Minn. 55414
612-376-7449

MISSOURI

* St. Louis SESPA
c/o Gar Allen
Dept. of Biology
Washington University
St. Louis, Mo. 63130
314-863-0100, Ext. 4387

NEW MEXICO

Jim Tobias
3703 Barcelona SW
Albuquerque, N. Mex. 87105

NEW YORK

* N.Y.C. SESPA/SftP
c/o Joe Schwartz
53 Greenwich Ave.
New York, N.Y. 10014
212-989-6304
* Stony Brook SftP
c/o Ted Goldfarb
Chemistry Dept.
SUNY
Stony Brook, N.Y. 11790
516-246-5053

Marvin Resnikoff
174 West Ave.
Buffalo, N.Y. 14201
716-856-6587

OHIO

Jenny Thie
21417 Fulton Ave.
Cincinnati, Ohio 45206
513-931-3234

PENNSYLVANIA

Les Levidow
4816 Florence Ave.
Philadelphia, Pa. 19143
215 SA4 5360

WISCONSIN

* Madison Science for the People
c/o Joe Bowman
306 N. Brooks St.
Madison, Wis. 53715
608-255-8554

AUSTRALIA

Tony Dolk
234 Bobbin Head Rd.
North Turrumurra
New South Wales
2074 Australia

BELGIUM

Gerard Valencuc
Centre Galilee
B.P. Galilee 047
B-1348 Louvain-La-Neuve
Belgium

CANADA

Bob Cedergren
Dept. of Biochemistry
Univ. of Montreal
Montreal 101
Quebec, Canada

SCIENCE PROGRESSISTE/
Science for the People
c/o McGill Daily
3480 McTavish St.
Montreal
Quebec, Canada

ENGLAND

Dave Hayes
14 Goodwin Rd.
Sheffield 8, Yorkshire
England

British Society for Social
Responsibility in Science
9, Poland St.
London W1V 3DG
England
01-437-2728

* Science for the People Group
Brunel University
c/o Mark Piney
63 Hillingdon Hill
Uxbridge, Middlesex
England

IRELAND

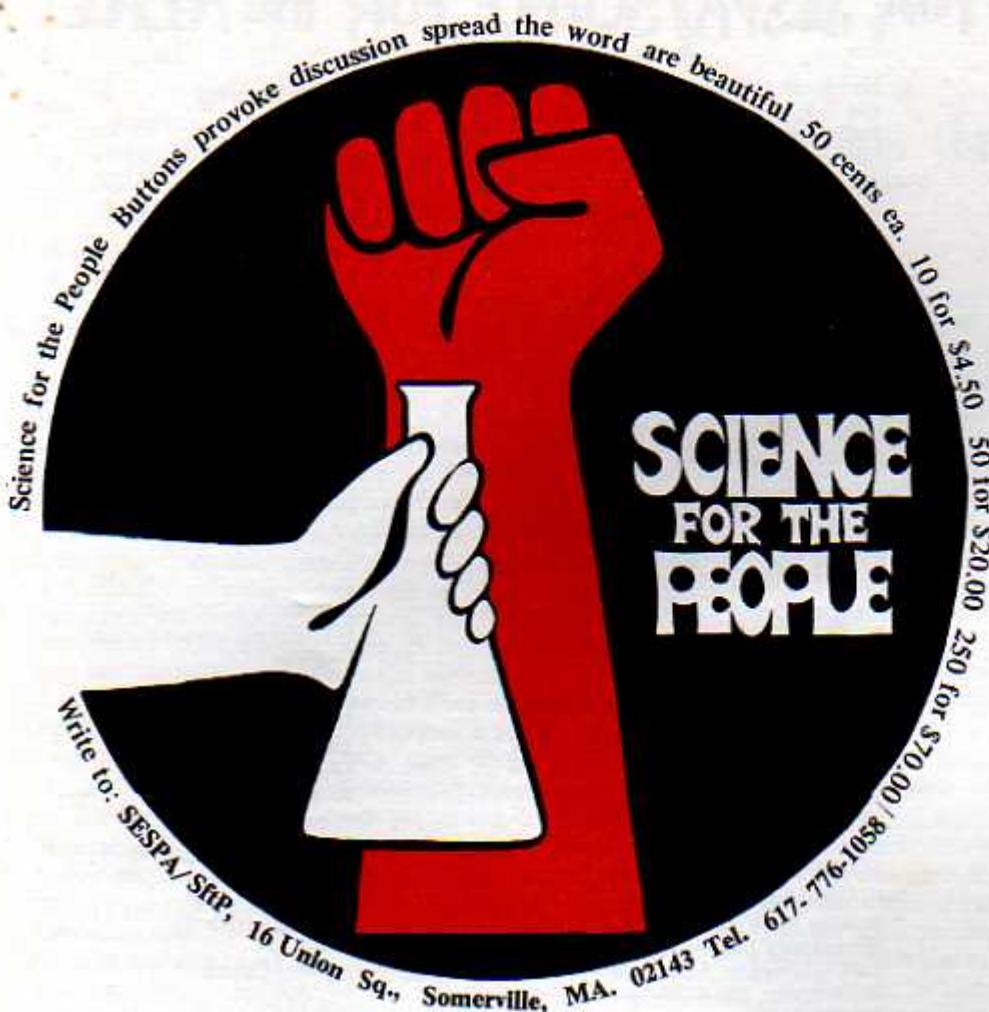
H.N. Dobbs
8 Ailesbury Grove
Dublin 4, Eire

INDIA

D.L. Surendra
3B, Thandava Raya St.
San Thome. MADRAS-4
India

WEST INDIES

C. Raymond Mahadeo
Caroni Research Station
Carapichaima
Trinidad
West Indies



ADDRESS CORRECTION REQUESTED

CHARLES SCHWARTZ 1/76
 PHYSICS DEPT.
 UNIV. OF CALIF.
 BERKELEY, CALIF. 94720

BULK RATE
 U.S. POSTAGE
 PAID
 BOSTON, MASS.
 PERMIT NO. 52696

SUBSCRIPTIONS TO *SCIENCE FOR THE PEOPLE* AND MEMBERSHIP IN SESPA

SESPA is defined by its activities. People who participate in the (mostly local) activities consider themselves members. Of course, there are people who through a variety of circumstances are not in a position to be active but would like to maintain contact. They also consider themselves members.

The magazine keeps us all in touch. It encourages people who may be isolated, presents examples of activities that are useful to local groups, brings issues and information to the attention of the readers, presents analytical articles and offers a forum for discussion. Hence it is a vital activity of SESPA. It is also the only regular national activity.

We need to know who the members are in order to continue to send *SCIENCE FOR THE PEOPLE* to them. Please supply the following information:

1. Name:

Address:

Telephone:

Occupation:
 (if student or unemployed please indicate)

2. Local SESPA chapter or other group in which I'm

active. (If none, would you like us to help you start one?)

3. I am enclosing money according to the following scheme:

- A. Institutional subscription-\$15 for libraries and others. _____
- B. Individual memberships: (1) regular memberships-\$12, (2) indigent membership-less than \$12, (3) affluent or dedicated revolutionary membership-more than \$12, (4) completely impoverished-nothing, (5) I have already paid. _____

4. I will sell _____ magazines. This can be done on consignment to bookstores and newsstands, to your co-workers, at meetings. (If you want to give some away free because you are organizing and can't pay for them, let us know)

5. I am attaching a list of names and addresses of people who I believe would be interested in the magazine. Please send them complimentary copies.

Please add any comments on the magazine or SESPA or your own circumstances. We welcome criticism, advice, and would like to get to know you.

SEND CHECKS TO: SESPA 16 Union Sq., Somerville, Ma. 02143