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OCCUPATIONAL HEALTH HAZARDS — ENVIRONMENTAL

By PAUL E. TOTH
Eng., Michigan Department of Health, Eloise, Mich.

It has often been said that anything taken into the body in too large a quantity may be considered a poison.

The problem then becomes one of defining the limits or quantity of substance a person can taken into his body without producing deleterious effects on his health and well-being. For many of the dusts, gases, vapors, and fumes encountered in the environment of our workrooms in industry, there are limits that are referred to as maximum allowable concentrations (MAC). These limits are based on an eight-hour day exposure and are nothing more than bench marks or guides which enable an industrial hygienist to properly evaluate the extent of an exposure and to determine whether or not a potential health hazard is present.

The list of maximum allowable concentrations can be obtained from the American Conference of Governmental Industrial Hygienists, 1014 Broadway, Cincinnati 2, Ohio, or if you have access to the American Industrial Hygiene Association Journal of August, 1961, you will find it there.

When we say these values are bench marks, we mean that more factors are considered in evaluating an exposure than just the finding of a certain amount of contaminant in the air. Factors such as skin absorption, accumulative effect or sensitizing properties of the suspected material must also be considered for proper evaluation of the exposure. Now let us consider but a few of the many toxic materials one may be exposed to in different industrial environments.

Lead

Lead, I'm sure, we are all familiar with, yet it is this familiarity that gets us into trouble with this metal, because we choose to forget the fact that it is an accumulative poison. The maximum allowable concentration for lead is 0.20 milligrams per cubic meter, and the little we take into our system today that is in excess of this value is added on to the little we take in tomorrow until the body can no longer safely hold the burden. Chronic lead poisoning will develop among employees exposed during the course of their work to excessive levels of lead dust or fume. Clinical manifestations may appear as loss of appetite, nausea, vomiting, general sickness, irritability, dizziness, and headache, and unless the afflicted person has biological tests taken for lead absorption, the diagnosis may be missed completely until more severe symptoms develop.

Taking appropriate action when blood lead levels indicate an absorption of 0.08 milligrams of lead per 100 grams of whole blood is essential for the prevention of lead poisoning. Recommended action is to remove the employee from further exposure and to review the area of operation to make sure that all engineering controls and safety precautions are satisfactorily in use. Obviously good engineering control is required to prevent the lead from being dispersed into the workroom. In addition, good personal hygiene is required to further reduce exposure. Finally, biological tests, preferably blood leads, are required to ascertain any shortcomings in either of the first two control measures.

Cadmium

Cadmium metal, either as a plating on parts or the solid metal itself, will volatilize when heated above 600°F to produce a toxic brownish-yellow cadmium oxide fume which has no pronounced odor or immediate effect but its inhalation may induce after a few hours or much less depending upon the concentration of exposure a painful and sometimes fatal pneumonitis. The maximum allowable concentration of this material is listed as 0.1 milligrams of fume per cubic meter of air and only by means of a well-engineered exhaust system are we able to control any operation generating the fume to a value below this level.

Beryllium

Beryllium metal is being used quite extensively in the aviation and missile industries. Exposure to minute quantities of fume or dust from this metal may also cause an acute chemical pneumonitis. The maximum allowable concentration is 0.002 milligrams per cubic meter of air and concentrations as low as 0.025 milligrams per cubic meter for thirty (30) minutes are hazardous. The toxicity of this metal can be attested to by the reports of non-occupational illness caused as a result of air pollution or home contamination resulting from dust carried home on the employee's work clothes.

Recommended control procedures are to enclose beryllium machining and finishing processes as much as possible and to ventilate by means of a local exhaust system.

Carbon Monoxide

From the time man first encountered fire to the present, when the automobile contributes gas to his environment, carbon monoxide has been with us as an insidious killer. You can suspect its presence wherever there is fire, but don't be fooled into believing that just because there is a lot of air present that carbon monoxide will not be formed. To illustrate this point, take the burning of newspaper in excess air as an example. According to the experimental work performed by Easton, the following analysis of the products of combustion was found.

Carbon Dioxide	7.6%
Carbon Monoxide	6.2%
Oxygen	7.7%
Nitrogen	77.6%
Unsaturated Hydro-carbons	1.2%

The maximum allowable concentration for carbon monoxide is 100 parts per million; the concentration obtained by the burning of newspaper in excess air was 62,000 parts per million, enough to kill a man in less than five (5) minutes of exposure. Sources of this gas are smoke from a coal fire, flue gas from boilers and house heaters, gas from charcoal braziers and from coke-burning salamanders, and whenever a flame impinges upon a cold surface—just to mention a few.

Carbon monoxide is not a protoplasmic tissue poison. Were it not for its affinity for the hemoglobin of the blood, it would be classified with the simple asphyxiants such as nitrogen and hydrogen.

For some unknown and unfortunate reason, the hemoglobin's affinity for carbon monoxide is approximately 300 times greater than its affinity for oxygen. Its chief mode of action is to combine chemically with the hemoglobin and thereby deprive the body of its respiratory function. There is no further change in the system. The carbon monoxide remains thus combined until the victim is removed from the contaminated atmosphere to fresh air where the chemical process is completely reversed; that is, the hemoglobin gives off the carbon monoxide and takes on oxygen.

There are no cumulative effects from carbon monoxide for it is not a cumulative poison. The misconception expressed as "chronic carbon monoxide poisoning" is probably based on cases where there has been prolonged asphyxia which has damaged the brain too severely for complete recovery but not sufficiently enough to kill the victim. This same brain damage will result regardless of what the circumstances are that caused a deficiency in the supply of oxygen to the brain cells.

Plastics

Polyurethane foams and epoxy resins are finding wider use in numerous applications. The diisocyanates used in the production of the urethane foams are upper respiratory irritants and extreme sensitizers. Persons who have once become sensitized to these materials develop severe asthmatic attacks if they should again be exposed to extremely minute quantities of the material. Exposure to large initial concentrations will also result in an asthma-like syndrome. As a rule once a person has become sensitized, he can no longer work with or in the vicinity of this material. The best control measures for protection against exposure to the diisocyanates is to put in a well-engineered ventilation system before operations begin.

The amine hardeners used in the epoxy resin system are the principle cause of dermatological manifestations resulting from contact with these materials. We have a great deal of difficulty in trying to convince people of the importance of wearing adequate protective equipment in order to prevent skin contact with subsequent

sensitization. They are inclined to ignore the warnings because in many cases the skin reactions do not appear until several months after a person has started working with the resin. Once a reaction has developed, they must exercise even greater care then required initially in order to prevent a recurrence.

High Energy Fuels

The race for missile supremacy and the conquering of space has confronted us with increased problems of exposure to high energy fuels and their decomposition products. Among these are hydrazine and the boranes—diborane, pentaborane and decaborane.

Hydrazine finds its use as a propellant fuel, either alone or with other compounds such as nitric acid, hydrogen peroxide or oxygen. It has a maximum allowable concentration of one (1) part per million, and in addition to the inhalation hazard, the material is absorbed through the skin. It is primarily a central nervous system stimulant causing excitement, convulsions and cyanosis.

Diborane is a gas at room temperature and has a maximum allowable concentration of 0.1 part per million. Inhalation produces congestion, edema and hemorrhage in the lungs. Its toxicity is comparable to that of phosgene.

Pentaborane is a volatile liquid with a tentative maximum allowable concentration of 0.005 part per million; however, it is recommended that the exposure be kept as near to zero as is possible since no medical preventive or therapeutic agent has yet been developed for this compound.

Decaborane is a solid having a tentative maximum allowable concentration of 0.05 part per million. Both decaborane and pentaborane attack the central nervous system. Protection is best afforded by the use of air-supplied respirators or cartridge-type respirators that are specifically designed and designated for protection against these compounds.

In concluding this brief discussion, may I point out to you that the services of your local, state, and federal health agencies are always available to you. Should you desire information on the potential health hazard associated with any material or process to which you or your associates are exposed in your particular place of work, feel free to contact any one of them for assistance in evaluating the problem.

REFERENCES

1. Easton, William H., "Smoke and Fire Gases," Industrial Medicine, Vol. II, No. 10, p. 467, Oct., 1942.
2. Eisenbud, M., et al, J. Industrial Hygiene and Toxicology, p. 282, 1949.
3. Haggard, Howard W. and Henderson, Yandell, "Noxious Gases," Reinhold Publishing Corp., 1943.
4. Stokinger, Herbert E., Ph.D., Industrial Hygiene Quarterly, p. 341, Sept., 1956.

OCCUPATIONAL HEALTH HAZARDS — MEDICAL ASPECTS

By HERBERT K. ABRAMS, M.D.
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I would like to quote from a famous writer his description of a "modern" community:

> It was a town of red brick, or of brick that would have been red if the smoke and ashes had allowed it; but as matters stood it was a town of unnatural red and black like the painted face of a savage. It was a town of machinery and tall chimneys, out of which interminable serpents of smoke trailed themselves for ever and ever, and never got uncoiled. It had a black canal in it, and a river that ran purple with ill-smelling dye, and vast piles of buildings full of windows where there was a rattling and a trembling all day long, and where the piston of the steam engine worked monotonously up and down, like the head of an elephant in a state of melancholy madness. It contained several large streets all very like one another, and many small streets still more like one another, inhabited by people equally like one another, who all went in and out at the same hours, with the same sound upon the same pavements, to do the same work, and to whom every day was the same as yesterday and tomorrow, and every year the counterpart of the last and the next. . . .

> On every side, and as far as the eye could see into the heavy distance, tall chimneys, crowding on each other, and presenting that endless repetition of the same dull, ugly form, which is the horror of oppressive dreams, poured out their plague of smoke, obscured the light, and made foul the melancholy air. Strange engines spun and writhed like tortured creatures; clanking their iron chains, shrieking in their rapid whirl from time to time as though in torment unendurable, and making the ground tremble wth their agonies. . . .[1]

Before you try to guess which city this is, let me tell you. Charles Dickens wrote this in his book *Hard Times*, published in 1854, describing a typical city in England during the years of the industrial revolution (1760-1830). The description sounds too familiar for comfort to us in America in 1961, at a time when we are going through another industrial revolution: automation, atomic energy, space travel, and many powerful new chemicals. They are exciting developments. They offer a promise of a wonderful world of tomorrow. However, they also pose serious threats to our health and well-being, unless they are properly controlled.

We must ask ourselves whether we are better prepared to meet these threats than the English were 150 years ago. Certainly, we are better prepared technically. In 1800, except in a few instances, little was known about the health aspects of exposure to chemicals, to ionizing radiation, or the effects of long hours of work, poor lighting and ventilation. Today, however, our technical knowledge is sufficient, so that we can say with assurance that we know how to use any chemical with safety. We know how to set up proper protective measures to make every job safe.

The big question is, "Are we utilizing this knowledge?"

Perhaps you who represent workers in industry know the answer better than I do. Let me give you only two examples that will help provide the answer. In Illinois, in 1958, there was found "a drug packaging plant where 103 employees were subjected to a full body fluoroscopic examination each day as they left the plant as a check against pilferage. During the examination, the entire body from the top of the head to the bottom of the shoes was exposed to ionizing radiation. The firm had practiced this procedure on all employees for some 12 years, but discontinued it when advised of the hazards involved." I am quoting from the Report of the Atomic Power Investigating Commission to the 71st General Assembly, State of Illinois, March, 1959.[2]

In the same report, the study found that:

> Gross contamination and excessive levels of radiation typify nearly all radium processing installations in Illinois included in the survey. These conditions result from a lack of adequate shielding of proper routing of materials, as well as poor housekeeping within the plant, as noted by the contaminated paper and rags littering the floors, the lack of local exhaust ventilation and presence of contamination in eating areas. In addition, it was noted that labels on containers of radium-luminous compounds do not contain information as to the quantity of radioactivity included. In all radium plants surveyed, little or no use was made of personnel monitoring devices, such as film badges and, therefore, there is no adequate record of radiation exposures received by working personnel.[3]

This was Illinois, 1958—thirty years after the tragedy of the girls who painted watch dials: they pointed the brushes containing radium paint with their lips, and later died of bone cancer.

The role of environment on health grows in importance as we gradually control the infectious disease agents that caused the plagues of old, and as the chemical and physical hazards of our industrial environment become ever more important determinants of our health and our diseases. A recent report of the Public Health Service made for the House committee on appropriations states: "After hearing the evidence, the members of the subcommittee concluded that the health hazards resulting from changes in the environment are far greater than is generally realized and that all levels of government, industries, and research and educational institutions need to step up their efforts to deal with the problem."[3]

The number of chemical materials man is being exposed to is increasing constantly. Over 600 chemicals are currently being added to food; over 600 million pounds of pesticides are used annually, in the United States. Approximately 500 new chemicals are introduced on the United States market each year.

The occupational environment is the basic element in our total environment. Our occupations largely determine how and where we as individuals will live, and, indirectly or directly, may actually influence our life expectancy and our mode of death. Our

industries, in addition to affecting the immediate eight-hour working environment, also largely account for the chemical and physical contaminants in the air we breathe, the water we drink, and in the food we eat.

One example will illustrate: recent studies show that people living in manufacturing areas experienced higher death rates than residents of non-manufacturing areas. The difference was greatest for cancer, and tuberculosis of the respiratory tract (mainly of the lungs), and for various forms of heart disease.[4]

Air pollution was a major factor in causing this greater mortality, but socio-economic conditions also played an important role.

Occupational Diseases

Occupational disease hazards may be classified in various ways. For example, by the type of agent which causes the disease: chemicals, in the form of liquids, dusts, gases, fumes and vapors; physical agents, such as noise, ionizing radiation, abnormal temperatures and pressures, vibration, and physical strain; infectious disease agents, such as the germ that causes brucellosis in meat-packing house workers and farmers.

Or occupational diseases can be studied according to the part of the body affected or the kind of disease. For example, many toxic chemicals may attack the skin, causing an inflammation which we call dermatitis. These or other chemicals may affect the lungs, the liver, the kidneys, the bones, or various combinations of organs of the body, and, in many cases, the entire system.

Occupational diseases may be acute and temporary, or may be chronic and long-lasting. Brief exposures to certain chemicals may produce symptoms that are of short duration, and the individual recovers quickly. A good example of this is metal fume fever, arising from inhalation of the fumes produced when certain metals are heated to temperatures above the melting point. Among the metals which can cause this are zinc, copper, magnesium, cadmium, iron, manganese, and others.

More important, however, are the chronic diseases of industry. These are the diseases of relatively long duration arising usually from long-continued exposure to relatively small amounts of toxic chemicals. Sometimes these diseases do not show symptoms until long after, in many cases years after, the exposure has stopped. A good example of this is berryllium, a metal which may result in serious and fatal lung disease up to 15 or more years after breathing the contaminated dust or fumes.

We must remember that diseases, like everything else affecting living things, cannot be put into rigid categories. Not all chronic occupational diseases need to result from long-continued exposure. Only a brief exposure to a large dose of ionizing radiation (X-ray or radioactive chemicals) may result in cancer. Similarly, a brief exposure to a sufficient dose of carbon tetrachloride may result in chronic kidney disease or liver disease. In other words, there are many variations and combinations of these conditions.

To attempt a detailed listing of all of the chemicals and metals which can cause disease would only be disturbing and confusing, and we would be in danger of not seeing the forest for the trees. Every industrial chemical is dangerous. It is merely a matter of determining how dangerous it is and establishing procedures for protecting against it. The time is past when "experts" can stand before a group of workers, or, for that matter, a group of physicians and scientists, and say without evidence that this or that chemical when absorbed into the body is harmless. I recall only a few years ago attending meetings of industrial physicians and being shown X-ray pictures of lungs of coal miners, black with inhaled coal dust, and being told that this dust was harmless. Yet, long before that time, British scientists had demonstrated that coal dust can cause disabling lung disease in miners. We in the United States were merely slow to accept the evidence.

Diseases of the Lung

The respiratory system (lungs, bronchi, and larynx) is the most frequent site of chronic diseases caused by industrial poisons. For a long time, we have recognized that silica dust, as it is inhaled by the metal miner, the foundry worker, the pottery worker, the tunnel digger and others, causes a disabling and often fatal disease called 'silicosis.' Similarly, we know that asbestos dust causes a serious lung disease called

'asbestosis.' And, there is a lung disease found in workers in the manfacture of alumina abrasives, called 'Shaver's disease' (after Dr. Shaver who described it). The dust has high concentrations of alumina and silica. Diatomaceous earth, a form of free silica, similarly causes serious lung disease. And there is byssinosis, resulting from the inhalation of cotton dust. Until a handful of years ago, some of the experts insisted that many dusts when inhaled into the lungs were inert; that is, they produced no effect on the body. However, as we learn more, we find that these so-called "nuisance" dusts are also capable of causing disease. For example, talc, corundum, feldspar, graphite, porcelain, barita, cement, mica, slate, kaolin, and many others.

Even farmers, as well as grain handlers in the holds of ships, suffer from a respiratory disability when inhaling large amounts of grain dust. They develop chronic bronchitis with shortness of breath, cough, etc. Chronic bronchitis can result from inhalation of irritating dusts, fumes and gases: for example; phosphorus chloride and other volatile chloride compounds, acid fumes, phosgene, nitrous gases, aldehydes, solvents and other chemicals.

One of the leading toxicologists in the country, Dr. Herbert Stokinger, of the Public Health Service, points out that:

> . . . our experience with occupational lung diseases makes it difficult to escape the conclusion that *all dusts*, irrespective of their nature, if breathed in sufficient quantity and for sufficient time, may cause profound damage to the lung, and emphasizes the desirability of the physician's obtaining an accurate and thorough history on individuals suspected of pulmonary disease.[5]

Other Chronic Diseases

Let me discuss a few more of the chronic disease hazards, since these are the chief occupational health problems of the present day. The chlorinated hydrocarbons, such as carbon tetrachloride, represent a large group of chemicals used in industry. These can damage the liver and the kidneys. The chemicals known as aromatic amines, represented by beta napthylamine, used in the manufacture of dye and other commodities, have been proven to cause cancer of the urinary bladder. The central nervous system—that is, the brain and spinal cord—can be affected by many chemicals. Tetraethyl lead causes severe brain disease called encephalopathy. Manganese, one of the important industrial metals, causes a disease that is remarkably similar to multiple sclerosis. Carbon disulphide may cause severe nervous system effects, affecting the nerves, muscles, and brain.

Serious and sometimes fatal blood diseases may be caused by exposure to benzol. Of course, we know that ionizing radiation in any form—whether through exposure to X-rays or radioactive chemicals—may cause fatal blood diseases as well as various types of cancer. The bones can be affected by exposure to radioactive chemicals, fluorides, phosphorous, and other chemicals. Cadmium affects the lungs and kidneys.

The heart may be affected by the metal known as antimony, and possibly by nitroglycerin, and there have been a number of reports that the heart may also be affected by brucellosis infection, which occurs among slaughter house workers and farmers.

Nitroglycerin and related chemicals used in the manufacture of dynamite and other explosives make an interesting story and illustrate some of the problems in occupational medicine. Workers have been exposed to this group of chemicals for many years. They have known for many years the severe headaches this chemical causes. For years, also, we have heard reports of sudden deaths among workers exposed to nitroglycerin. We do know that this chemical has a powerful effect on the body. It causes profound reduction in blood pressure, severe headaches, palpitation of the heart, nausea and vomiting, fainting, dizziness, and other symptoms. It can also cause skin inflammation. Whether it can cause heart disease is disputed. Even though we have known this chemical for many years, there has been insufficient investigation of the health hazards, and inadequate preventive measures.

Cancer

Occupational cancer is one of our most serious problems. It also provides us with a remarkable opportunity to study cancer in general. The first breakthrough in the mystery of cancer came with the discovery of an occupational cancer. In 1775, in England, Dr. Percival Pott called attention to soot as a cause of cancer of the scrotum in chimney sweeps. These were little boys who climbed into the chimneys to clean them out. Years after working in this

occupation, they died of cancer of the scrotum, which was traced to the soot which penetrated their clothing. Similarly, for years we have known that an excessive number of uranium miners in Europe have died of lung cancer. (Recent studies in our own uranium mines reveal dangerously high exposures.[1])

Since then numerous other chemicals, in addition to ionizing radiation, have been demonstrated to be capable of causing, or contributing to the development of, cancer in various parts of the body. Some examples are beta naphthalamine, which I mentioned earlier, causing cancer of the urinary bladder, coal tars which can cause cancer of the skin, chromates which cause cancer of the lung, and many others. Recent studies have focused suspicion of lung cancer hazards in the work of welders, sheet metal workers and other metal workers.

Skin Diseases

Skin diseases are, as you know, the most frequent type of occupational disease which we see. Most of them result from direct irritation by chemical or physical agents. A smaller number result from an allergic reaction to a chemical. Almost any chemical contact can result in dermatitis. Many of the new chemicals are causing skin troubles. For example, the epoxy resins: These materials are being widely used in electronics, automotives, pattern-making, die-casting, aircraft, and other trades—for surface coatings and paints, molding compounds, various plastics, and electrical insulation. Another group of chemicals which causes skin disease are the chromates. Chrome ulcerations of the skin are well known. The chlorinated hydrocarbons also may cause skin diseases. One of them is called 'chloracne' because it resembles acne. Machinists and metal workers often get a dermatitis from cutting oils. Coal tars produce skin changes, some of which may turn into cancer. There are a host of others too numerous to mention.

Protection

These are only a few examples of the occupational disease hazards arising from contact with chemicals. The alert worker will become acquainted with the materials he is handling and the process he is using, so that he can help to protect himself and his fellows. If he should suffer excessive exposure to some harmful material, he will know what to tell the doctor who examines him. The alert doctor will be able to correlate the occupational history with the physical findings and symptoms and decide whether the patient is suffering from an occupational disease.

Very few occupational diseases produce such characteristic symptoms that they can be readily identified as an occupational disease. After all, the body can react to harmful stimuli only in a limited number of ways. For example, a worker may have severe pains in his abdomen. These might be caused by appendicitis or by lead poisoning. Leukemia may result from unknown causes or from exposure to X-rays. A person suffering a certain type of paralysis may have multiple sclerosis, a disease of as yet unknown cause, or it could be manganese poisoning. The person who has a cough, shortness of breath, and is losing weight, may have tuberculosis, silicosis, berylliosis or cancer of the lungs. A history including occupational history and a thorough examination is the only way of telling those conditions apart.

Prevention

All occupational diseases are preventable. If we were doing our job right, we would have nothing to talk about today. The fact is that unknown numbers of people are suffering from a great variety of occupational diseases because we are not adequately protecting against them. What are the protective measures which we should follow?

(1) *Education:* Employees should be given adequate training for their jobs, so that they understand the process, know the materials they are handling, and, therefore, can protect themselves and other workers from injury.

Key employees should be instructed in first aid. Management and labor both have responsibilities here. Shop health and safety committees can help in the health education of workers. *There is no substitute for knowledge.*

(2) *Protection of the environment:* This means from the air of harmful dusts, fumes, gases, vapors. This is accomplished by means of engineering measures, such as exhaust ventilation, enclosure of hazardous processes, wetting down methods for suppression of

dusts, and substitution of less harmful for dangerous materials. Good lighting and reduction of noise, etc. are other environmental problems that the engineer can help to solve.

Only when engineering measures are not possible should respirators or other personal protective devices be depended on for protection against inhaling of harmful materials.

(3) *Good housekeeping and sanitary place of work:* This means a clean place of work, free of dirt and dust, and accident hazards. There should be adequate toilet, washing, shower, locker and eating facilities. Hand washing alone can often prevent dermatitis and other diseases. All containers of chemicals should be properly labeled.

(4) *Personal protective devices:* Wherever necessary, management should supply workers with respirators for protection against noxious dusts, fumes and gases in the air; suitable gloves and work clothing for protection from harmful chemicals; hard-topped shoes and hats for protection from falling objects; safety goggles, etc.

(5) *Medical protection:* This includes first aid facilities and a medical department. Every worker should have a periodic physical examination, not for the purpose of disqualifying him for work, but for the purpose of detecting disease early so that prompt measures can be taken to protect his health. The physician has an ethical obligation to inform the worker or his family of any finding important to his health.

In addition to first aid and medical care for work injuries, all workers and their families should have access to modern medical care. Unions throughout the nation are obtaining such care through collective bargaining. Union health centers and other plans, such as Health Insurance Plan of Greater New York and the cooperative health plans, are attempting to bring good care, including preventive medicine, to working people.

(6) *Plant health and safety committees:* Every place of work should have a committee of representatives of the workers concerned with the health protection of the men and women in the plant. This committee should have authority to make periodic inspections of the plant and make recommendations to management. The committee should meet regularly with the plant physician, the nursing staff, the plant safety and industrial hygiene engineers, and with other representatives of management to discuss health and safety problems and to plan programs of education of the workers in these problems.

(7) *Government safety and industrial hygiene agencies:* These agencies should be called upon for help, whenever the union believes that management is not adequately providing health and safety measures in any particular problem.

How We Are Doing Our Job

How well are we doing in protecting our workers? Let me cite a few facts. The prevalence and incidence of occupational diseases in the United States is unknown, because in many states there is no reporting of occupational diseases. And, in those states where there is reporting, it is incomplete and not uniform. Moreover, we know that numerous occupational diseases are not recognized because of medical ignorance, deficiency in medical education, deficiencies in workmen's compensation laws and health and safety laws.

Health services in many private industrial plants are inadequate, and most workers are employed in small plants where such services are not provided. According to the Public Health Service, 90 per cent of the labor force is not receiving proper industrial hygiene and health services.

The governmental agencies, federal, state and local, which are charged with responsibility for protecting the health of workers, are for the most part grossly inadequate in their resources and services. They suffer from lack of funds, personnel and even from lack of authority. At least seven of our states have no occupational health units in their health or labor departments, and in all of the state occupational health agencies in the entire country, there are less than 40 physicians employed. There is no uniformity of industrial health codes and standards, and the states differ in the hazards regulated and in their regulations for the same hazards.

There is a serious and growing shortage of physicians and other health personnel both in and out of industry. Dr. Harold J. Magnuson, Chief of the Division of Occupational Health of the U. S. Public Health

Service, estimates that by 1970, industry will need 4800 physicians, but is expected to have only 2900; while 35,000 industrial nurses will be needed, but only 26,000 are expected; and 3400 industrial hygienists will be needed, but only 1600 are expected.

Workmen's Compensation

Good workmen's compensation laws are basic to the health of industrial workers. Without strong workmen's compensation laws, it is difficult to see how we can ever have really effective implementation of our industrial health measures. The fact is that although the workmen's compensation laws are the earliest form of social legislation in the United States, they are in almost all cases hopelessly behind the times. They are inadequate in their provisions for compensation, for medical care and rehabilitation, and most of them have not been brought up to date to permit equitable recognition and compensation for the injuries inflicted by radiation and chemical hazards which cause chronic diseases, usually after long latent periods between exposure and the first symptoms of disease.

Two states still have no occupational disease coverage. Nineteen state laws cover only specified diseases. Most of the laws exclude farm work, domestic work and casual employment. In over half the states, employees in small establishments which have less than a specified number of employees are excluded, and in 12 states the laws apply mainly to a list of "hazardous" employments. Many white collar workers are today excluded from the workmen's compensation laws.

Research

The level of our research in occupational health is correspondingly low. Research is largely in the hands of private industry, and it is guided substantially by the economic needs of the particular industry. Even where research is done in universities, much of this is subsidized for special needs by private industry. Governmental agencies sporadically have made excellent contributions, but their resources are chronically inadequate. There is an urgent need for a system of research and consultation facilities in various parts of the country where workers and employers alike can go for scientific solutions to their problems.

Hope for the Future

Last year, a subcommittee of the House committee on appropriations under Congressman Fogarty conducted hearings on these problems. These are published in a "Report on Environmental Health Problems," available through the Government Printing Office.[8] It is interesting reading. These hearings raised hope that better appropriations would be made to the Public Health Service and other agencies for an expansion of services in the environmental health field.

In the meantime, there is a dangerous vacuum in the supervision of hazards from ionizing radiation as differences prevail among the interested agencies, AEC, U. S. Public Health Service and the states, over jurisdiction in this field. At the moment, controls in this field are a patchwork with good programs in a few states like New York and California, but poor or almost non-existent programs in most others.

The implications of all this should be obvious. Occupational health and workmen's compensation vitally and directly affect the health and life of working people. Yet the unions so far, for the most part, seem to be apathetic about this. Now that unions are deeply involved in health insurance, for the care of non-occupational diseases, perhaps there will be a resurgence of interest in the environmental factors which affect our health.

A few unions have begun to help themselves. Some have negotiated clauses in their collective bargaining agreements embodying a number of the preventive measures I outlined earlier, and have also asserted the union's right to bring expert consultants into the plant.

The United Auto Workers has a department of occupational health, staffed by two experts in safety and industrial hygiene. The International Association of Machinists has a medical consultant. The International Chemical Workers' Union also has a medical consultant and recently appointed a staff safety man. These people can be of great help to workers in providing them with expert knowledge and honest information. Obviously, however, every union cannot and should not hire its own corps of experts and set up its own research laboratories. We are dealing with big social problems, and they must be met socially.

Professor of Sociology of Columbia University, C. Wright Mills, defines the issue in this way:

> No moral endeavor, no political orientation, no human study that does not pay close attention to man at work, can possibly be adequate for our time. For work is affected by and in turn affects all that man is and all that he might become. The question we must ask of any society or of any social program is what kinds of men and women does it select, encourage, create? And, in terms of this human evaluation, the most important question we can ask is whether work is a void in which men sacrifice themselves or whether work is a central feature of a style of life in which man may realize himself. . . .[6]

REFERENCES

(1) Hunter, Donald, *The Diseases of Occupations*, Little, Brown & Co., 1955, pp 85-6

(2) *Report of the Atomic Power Investigating Commission* to the 71st General Assembly, State of Illinois, March, 1959, p. 25

(3) U. S. Department of Health, Education and Welfare, Public Health Service, *Summary of Report on Hearings on Environmental Health*, 1959

(4) Rumford, John, *Mortality Studies in Relation to Air Pollution*, presented at meeting of American Public Health Association, 1959

(5) Stokinger, as quoted by Mancuso, Thomas, in *Ohio State Law Journal*, "Medical Aspects of Occupational Diseases," Vol. 19, No. 4, p. 631

(6) Mills, C. Wright, in Symposium, "Man and Work," Northern California Mental Health Association, San Francisco, 1951

(7) *Governor's Conference on Health Hazards in Uranium Mines*, U. S. Department of Health, Education and Welfare, Public Health Service, Washington, D. C., 1961

(8) *Report on Environmental Health Problems*, Hearings before Subcommittee of Committee on Appropriations, House of Representatives, 86th Congress, Government Printing Office, Washington, D. C., 1960

SOME OBSERVATIONS ON OCCUPATIONAL DERMATOSES

By PAUL P. BOSWELL, M.D.
Senior Dermatologist, Provident Hospital, Chicago

Incidence of Industrial Skin Diseases

While there are at present no reliable statistics on the incidence of occupational dermatoses, their frequency is undisputed. Indeed, in World War II evidence indicates that there were more skin casualties than all other battle casualties in this very specialized occupation of soldiering.

In England, a three year study done between 1930 and 1932 inclusively, more than 72 per cent of all occupational diseases were found to be industrial or occupational dermatoses.

Reports from the compensation boards in seven states in this country indicated that 65 per cent of all compensible cases were occupational dermatoses. In a fashion more understandable to those of us accustomed to cost and taxes, this means an estimated loss of more than ten weeks per year with an annual cost of approximately one million dollars. This, in itself, a staggering figure.

Anatomy and Function of the Skin

With these brief statistics, it is well to ask something of their body area, so easily disposed to such great measure of damage. And *again* it is felt that a most superficial look at the anatomy and function of the skin, as it is related to this question, is indicated especially for those not related to the medical sciences.

It is not always realized that the skin is one of the most important organs of the body. In its embryonic development, it represents the first of the three primary or basis tissues formed, the ectoderm. And from this ectoderm the largest sensory organ is developed, the brain. So the skin is not only a prologue to the brain, but remains the next largest sensory organ.

The skin is an organ, a very complex organ, constituting about one sixteenth of the total body weight. It contains, within its comparatively thin structure, muscles, blood vessels, nerves, glands, specialized cells such as those that produce pigment and appendages such as nails and hair.

With over-simplification, we can divide the skin in two major layers—an inner layer, called the corium and an outer layer called epithelium. The inner layer is tough, elastic and resilient, and its chief function

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is to protect against normal and everyday injuries the more susceptible inner organs; and this is the skin layer which, on tanning, produces leather.

The epithelium, or outer layer, likewise protects by means of its outermost, insensitive, cornified layer, its oil gland and sweat gland secretion, and by means of pigment content. These elements are present in all normal skin and vary only by degree or quantity.

Of the many functions of the skin, the following are of particular pertinence to this discussion:

(1) It protects the under-lying tissues of the body by the physical means of resilience and elasticity.

(2) It protects by means of the relatively insensitive outer "horny" layer of the epidermis by its resistance to noxious substances.

(3) It protects the integument from actinic and other physical radiations by means of its pigments.

(4) It receives and transmits sensations of many types to the central nervous systems such as pain, heat and cold.

(5) It regulates body heat so that extremes of external temperature changes can be neutralized.

(6) It secretes water and some waste products.

(7) Finally, it has a small role in respiration and gaseous interchanges.

All of these functions are constantly being modified by internal and external influences designed to allow man to maintain some constancy in an ever changing environment.

Historical Background of Industrial Diseases

From a historical point of view, injuries suffered by the skin were known but not favored in medical writings for many years. Not until 1700 when Ramazzine published his *Treatise* was formal recognition achieved and many of his observations still hold true today.

In 1775, Percival Potts noted and described the chimney sweep cancer of the scrotum, as previously mentioned by Dr. Abrams.

Not until the early part of the nineteenth century were added interests and contributions made to this subject. Then English, French and Germans began to describe the occupational dermatoses of their era.

Not until World War I did American dermatologists begin their prolific and significant studies. At this time there was an intense revival and expansion of the chemical industries and many new areas in the field of industrial dermatoses had to be explained. These new areas are still being met with even today.

In 1928, the United States Public Health Service organized the Office of Dermatosis Investigation, which is exclusively concerned with occupational and other forms of contact dermatitis. This, in part, has led to formulation of laws in the majority of states designed to compensate workers for occupational diseases.

Predisposing Causes of Occupational Diseases

It is almost impossible to classify clearly all the professional and occupational damages to which skin is subjected. The new chemicals, the complexities of manufacture and the wide usages and the resultant chemical products increase this difficulty.

However, certain factors remain constant. I should like to summarize some of these among the predisposing factors that play an important role:

First—Illustrating the protective role of epidermal pigment, it is an accepted if not proven fact that negroes are less susceptible to certain skin irritants than other races. Thus they are the choice employees as grinders and dyers in dye factories, where irritating dusts as well as dyes are the major hazards. This is likewise true where solvents are the irritating factor as in dry-cleaning establishments. However, oils and their by-products are the chief irritants of negroes and an increase in dermatosis occurs in negroes chiefly in the form of oil acne.

Secondly—Types of skin vary markedly in individuals as well as in races. The thin, blond-skinned individual has trouble obtaining employment in those industries that bring them in contact with potential irritants and, I may add, if those industries' pre-employment examinations are adequate.

Workers with thick oily skin can tolerate the action of fat solvents, such as soap,

turpentine, naphtha, benzol, etc., better than the workers with dry skin. It is universally true that in occupations where clothing may become soaked in oils, greases and waxes these individuals with hairy, seborrhic or oily thick skins are more likely to develop folliculitis and acne-like lesions.

And, as a final note, in the same individual, the skin of the inner arms are more involved than the palms.

Thirdly—Perspiration and sebum usually act as a protective by diluting irritating agents that are already in solution. But a third predisposing factor is in that individual who perspires excessively and works in solid substances such a calcium oxide. Here the moisture can produce a chemical change where the conversion to calcium hydroxide proves to be an irritant.

To affect the skin, materials must wet the skin, thus acting by chemical combinations or by extracting moisture and fat. Obviously, these are materials soluble or miscible in sweat.

Fourthly—Age of the worker can also influence the incidence of occupational dermatoses, another factor to be considered. Whether or not this is due to relative inexperience and lesser previous exposure in younger people, statistically they are more susceptible.

Fifthly—As in all fields, the matter of sex must be considered when discussing predisposing causes. The skin of women is usually drier than that of men.

However, during menses and pregnancy there is an increase in perspiration and therefore an increase in the sensitivity as before mentioned.

Likewise, women are more concerned and more prone to individual cleanliness in their habits and so fewer incidences are reported.

On the other hand, fewer women are engaged in hazardous occupations and there is an absolute statistical decrease in reported cases.

Women seek first aid more readily and sooner than men and so develop fewer chronic dermatoses reported as compensible.

Sixthly—The existence of previous nonoccupational diseases is also a predisposing factor. There are workers more prone to develop industrial dermatoses than others. These are the individuals who have had previous skin diseases. This may or may not hold true for those with mycotic, or fungus, infections. There is no real evidence that this is true. Illustrative are the diseases of psoriasis and lichen plonus. In these individuals, though currently clear of the acute lesions, the development of trauma may cause recurrence or new lesions of these diseases completely unrelated to occupational dermatoses.

Seventhly—Cleanliness, or rather the look of cleanliness, or its careless application is a most important factor. And cleanliness means not only personal but also environmental. This is particularly true where workers handle or are exposed to fumes, dust and noxious vapors. Moreover, the clinical substances used in cleansing must be chosen judiciously, since they too can cause a reaction. The subject of cleanliness will be mentioned later.

Eighthly—The question of allergy is being deliberately passed over, since there is little agreement as to specific definition of this term. Suffice it to say that most, if not all, persons can be or are allergic if exposed to the right allergens. Guarding against this possibility is a herculean task.

Actual Causes of Occupational Dermatoses

The actual causes of occupational dermatoses may be simply divided or outlined in five major groups:

(1) Mechanical.
(2) Physical.
(3) Chemical.
(4) Plant poison or irritants.
(5) Biological.

Any or all of these factors may be encountered or predominant in any occupation. For example, the farm worker is exposed to most of these factors. There may be mechanical injury from farm machinery; there may be physical injury from heat, cold or the artivic rays of excessive sunlight; chemical irritants of fertilizers and insecticides may play a role; or the biological infections from fungus and parasite organisms from the effluvium of animal and plant materials are important and, of course, plant poison.

Mechanical agents which may cause callosities, tendon injuries, cuts and abrasions fall within this category. These in turn may lead to infection, or, as many investi-

gators think, may become the sites of malignancies. In those patients, previous sites of skin diseases such as psoriasis or lichen plonus, new lesions or an aggravation of old lesions is common.

Among the physical agents that are likely to excite occupational dermatoses are the following most common:

High temperatures may cause excess perspiration leading to the common heat rash, intertrigo, or less commonly, erythema ab igne. More permanent skin changes may result. These are the afflictions of the workers, produced by prolonged exposures to heat occurring in such workers as stokers and steel workers.

Cold and electricity may also take their toll amongst outdoor and electrical workers.

The deleterious effects of X-ray, radium and ultra violet radiation is well known to all of you; as Dr. Abrahms has previously indicated, this is particularly true with medical workers or technicians, miners of radium and uranium, and laboratory workers in the new field of nuclear energy and atom-splitting.

Chemicals are of necessity the predominant villains in the production of industrial dermatoses. These can be divided into what are primarily skin irritants or skin sensitizers.

The primary irritant is defined as an agent which will cause damage by direct action on the normal skin at the sight of contact. Only substances which can wet the skin or be dissolved in its solutions of sweat or sebum are in this catagory. Unfortunately these primary irritants, under specific circumstances, may also become sensitizers. The sensitizer, on the other hand, may not produce demonstrable skin changes on first contact, but only after prolonged exposure of one or more weeks may cause changes that produce a definitive dermatitis.

Here, the field of allergy enters the picture and its varied theories are an attempt to explain the mechanics of this most common condition.

For a detailed list of those major groups, the readers are referred to the encyclopedic work of Rostenbergard Sulzberger in the Journal of Investigative Dermatology, Vol. II, No. 3, June 1939.

What, in general, are the methods of preventing the wholesale occurrence of occupational dermatoses?

The ideal method, of course, is to safeguard the worker so that these noxious agents mentioned, do not come in contact with the worker's skin. This is obviously an impossibility.

The modern factory or laboratory, new in specific construction and automation, is coming closer and closer to this ideal.

The following basic precautions should be observed whenever at all feasible:

(1) Cleanliness of working environment.

(2) Personal cleanliness encouraged by shower baths, lockers for street clothing and work clothing.

(3) Initial physical examination to be assured that the applicant does not have any predisposing skin ailment.

(4) Insistence that workers report all irritations of the skin, no matter how trivial, to the medical department.

(5) The use of protective clothing where indicated, as well as the use of protective medications.

But, whereas it is impossible to outline any few basic principles of prevention, there is an encouraging number of positive factors.

Train inspectors, sanitary and safety engineers who are usually employed by insurance carriers and municipalities are the front line task forces. These people train superintendents, foremen, and plant physicians, who in turn instruct the workers of any avoidable hazards of the occupational dermatose.

While the problem of occupational dermatoses is complex and large, I, for one, am confident that American ingenuity will eventually solve it.

THE YEAR'S PROGRESS IN LABOR SAFETY

By LLOYD D. UTTER
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Research:

The State Labor Department's Committee of the Labor Conference completed a preliminary survey to evaluate the efficiency of state labor departments. The survey developed data on the number of industrial establishments in a state, the number of workers, the number of inspectors, and the cost per employee for services rendered by state labor departments. Results of the survey will be distributed to the states and publicized.

Exchange of Information:

Delegations from Japan and Mexico were furnished with information about union safety activities in the United States.

The inclusion of safety and health information in the labor press and other publications continues to grow. Sixteen labor publications qualified for the Public Interest Award of 1960. The number of winners of the awards doubled in comparison with the previous year.

Standards and Recommendations:

Progress was made in developing a "Labor Safety Manual" to cover on and off-the-job safety and health. Work on the introductory and occupational sections has been largely completed and ready for editing, leaving the off-the-job safety section still to be completed. It is expected to have the publication ready for distribution in 1962.

Training:

The Labor Conference adopted a recommendation supporting driver education in schools.

The Conference also supported the National Safety Council's policy on go-carts.

Assistance in training safety committeemen and other union officials was given to five unions in the Chicago area. These training courses have been expanded to include off-the-job safety.

The Labor Conference adopted a proposal to sponsor regional safety conferences or institutes primarily for labor officials, stewards, safety committeemen, et al in the major industrial cities of the country.

Technical Assistance:

Assistance was given to the safety committee of the Iowa AFL-CIO, which seeks to improve the safety and health regulations and program of the state of Iowa, in cooperation with industrial organizations of the state.

Information on on-and-off-the-job safety problems was furnished by mail and phone to an increasing number of labor organizations.

Program Aids:

The 1960 Christmas holiday safety campaign was supported by unions. Packets of materials were sent to Council labor members with a covering letter urging them to take an active part in this effort.

The third all-union Labor Day safety campaign conducted during the 1961 holiday was by far the most successful campaign which was co-sponsored by the Standing Committee on Safety and Occupational Health of AFL-CIO, the Labor Conference of the National Safety Council, and other organized labor groups. About 14,500 packets of materials were furnished to labor organizations, industrial establishments, civic and fraternal groups, churches, governmental agencies, and other types of organizations.

The distribution of campaign posters, safety talks, newspaper releases, and other materials was two and one-half times the amount of materials used in the 1960 campaign.

The labor press devoted far more space to safety over the holiday than in previous years. The front pages of numerous labor publications were entirely given over to emphasis on safety on the highways and in other holiday activities.

The campaign was expanded to include joint efforts by unions, public officials, civic and other organizations in several states.

Campaign efforts of local unions included the use of posters, safety talks at meetings,

publicity in local newspapers, radio messages, exhibits in Labor Day parades and celebrations, cooperation with local officials, the clergy, and other groups.

The steering committee for the campaign will acknowledge the splendid cooperation of labor organizations, the clergy and other groups with a special citation.

The broad and intensive efforts of labor, public officials, and numerous other cooperating organizations undoubtedly contributed to making the 1961 Labor Day holiday the safest on record, considering the volume of traffic.

The seat belt promotion, especially developed for labor organizations, was carried out during 1961 through the labor press, at union meetings, and in cooperation with plant off-the-job safety programs and other organizations.

The Labor Conference adopted a proposal to expand the off-the-job safety program to include activities on winter driving hazards, the prevention of falls, poisonings, fires in homes of workers, and other areas of accident prevention. The program is particularly aimed at major safety and health problems.

Three-panel exhibits with handout materials were provided for conventions of the brewery workers; the hod carriers and laborers; the oil, chemical and atomic workers; the steelworkers in Canada; and the joint labor-management safety conference of the Pacific Coast pulp and paper industry.

Recognition of Achievement:

The award plan of the Labor Conference went into operation in 1961. Applications for three grades of awards made to labor members of the National Safety Council and to individual labor members were received from 21 unions. Awards were made to 16, ranging from the top to the lowest awards. Presentation will be made at the National Safety Congress.

Membership:

Labor memberships in the Council total 329, a small gain over last year, and a new high.

SAFETY IS A MAN-SIZE JOB

By J. E. TRAINER
Executive Vice President, The Firestone Tire & Rubber Co., Akron, O.

I am always very pleased to take part in any conference concerned with safety, as this has been one of my chief interests during my lifetime, both on and off the job.

I am concerned with safety in several different capacities—I am concerned as an *individual,* as a *member of a family,* as a *citizen of a community,* as a *member of society,* and as a *member of an industrial organization.* In other words, I am interested in safety on the several levels of life in which I live and work. Having an interest is not enough, and knowing this, I have tried to be active in safety in each of these fields. I have also tried to be consistent in my attitude toward safety on each level.

This word "level" suggests a comparison. Today a type of house construction, known as the split-level house, is very popular. In this type of home, you live on different levels at different times, but all levels are parts of the one unit called your home. One level may seem important when you are using that level but the other levels are never out of the picture and in a matter of minutes your interest may shift to another level of the house.

I believe the split-level label can be applied to safety. We may operate on one level in the morning, and another level in the afternoon, and still another in the evening but we are always within the house of safety that includes all levels. During any given day, most of us operate on all levels of safety—in our homes, on the highway, at work, going home, at play, and back home again. We need to practice safety on every level.

I believe in facing problems directly, and I believe in knowing just where you stand before you start any kind of discussion or action. So before we go any further, I think it will be good for us to take a quick look around to determine our condition and position.

We have done some good work in safety in the United States. We have accomplished much, *but,* we are *not* finished. There is still plenty of work to be done.

When we begin to look around, we find some rather appalling figures and these figures tend to disturb us very much. They also become the basis for marching orders for the day. Very quickly they tell us what must be done.

I am sure you know these figures, but let's get them before us again. In 1960, 93,000 people lost their lives in accidents. No matter how much this figure is improved over the years, it is still *93,000 too many.* In dealing with the loss of human lives, *even one* is too many.

To express this loss in another way, every six minutes, twenty-four hours a day, year in and year out, somebody loses his life in an accident. This adds up to the 93,000 lives I mentioned. This is almost as many deaths as the United States suffered in World War I, and we thought the losses in that conflict were disastrous. This loss in life from accidents represents the entire population of Springfield, the state capital of Illinois.

But, there are still worse figures. We have been talking only about *fatal* accidents. In addition to the deaths, 45 million persons were injured in 1960. If you care to think in terms of dollars, these accidents cost over 13.5 billion dollars. Going beyond these figures, no one can measure the grief, the worry, the discomfort and the unhappiness caused by the accidents to the millions of people connected in some way with the victims.

We could go on and recite a lot of figures but these are enough to set the stage. There is still a big job to be done. These figures are a little bit cold because they are impersonal. They become more realistic when they represent real persons in your family, your neighborhood, or your plant.

I picked up a paper recently to make an experiment. I scanned the paper and I listed the headlines and feature stories, from the one issue, that were concerned with accidents and safety. This is what I found:

Jet plane crashes into store roof—pilot killed and 35 injured.

Six from area killed in auto crash.

Youth, 16, drowns in farm pond.

Indiana man killed in Ohio road crash.

Driver hurt, phones knocked out, in truck crash.

Grid star injured in freak accident.

Family of seven wiped out in tenement fire.

Here we had in one issue of a newspaper, 16 dead and 38 injured, and all within my community or population center. These examples bring the figures closer to home. They *do not* tell us that our job is done in safety.

I read these accident and fatality figures regularly, and I am sure you do, too. They have a great effect on me. They stimulate me to continue everything I've ever done in the interest of safety, *and* to step up the pace if possible.

Since our special emphasis today in this section is industrial safety, let's take a closer look at that level. I think we will soon see that there is no level that is not dependent on all other levels.

In industrial safety there has been some fine work done. The fatality rate in all industry has been reduced and injuries have been greatly diminished. I am going to use some facts and figures concerned with Firestone, because, first, this is the situation I know the most about, and secondly, it will serve as a typical example of industrial safety in action.

At Firestone, we have reduced our frequency rate from 6.3 in 1946 to 1.7 in 1960 and to 1.3 for the first six months of 1961. Our severity rate has been reduced from 970 in 1946 to 305 in 1960 and to 275 for the first six months of 1961.

Our company has received the Award of Honor of the Safety Council on a company-wide basis, several times and individual plants have been cited frequently for meritorious performance. Firestone holds the world's record for tire plant safety— a record when one tire plant went through almost 10 million man-hours without a lost

time injury. In the industrial rubber goods classification, a Firestone plant holds the record of 7 million man-hours without a lost time injury.

I give you these figures not only because I am proud of them, but because they indicate what is being done with definite safety programs and by instructional procedures that keep pounding home the value of safety.

Our point of emphasis here is that in spite of what has been done in industrial safety the figures for *over-all* accidents continue at very high levels.

Safety programs in industry have undergone great changes in the time I have been associated with them. The scope has greatly expanded. In the early years the emphasis was in the prevention of fatal accidents. Today, although the fight still goes on against fatal accidents, the program now includes prevention against even the most minor injury.

As safety programs in industry have developed into their present state, they have passed through several stages.

The first stage could be described as mechanical. This is the stage when we put guards on gears, stop rails on rollers, wire grilles to protect accidental contacts. It is the stage of guards, guides, grilles, and gimmicks to prevent injuries. It is the time of automatic stops and safety releases. We installed lights, we protected against flying objects, we painted, we smoothed, we roughed up—anything and everything—to make the environment reasonably safe. All these things helped but they were not enough.

The key word in the second stage is "attitudes." Industrial safety people found that in spite of guards, automatic warnings and all other devices, that men were still getting hurt, because safety was not in their thinking; it was something the safety man did. Safety programs were started to train men on safety. This program was not only to train supervisors but to develop safety attitudes in all employees.

Safety operating instructions were prepared; safety shoe programs and eye protection programs have been emphasized to influence the man to think safety. Safety scoreboards screamed at him to be safe, they were even made to move, rotate and spin, so he would notice. There are safety contests, slogan contests, and awards of every type to impress safety indelibly on the mind of the individual.

The third stage is going on continuously. It includes the first and second but it goes further. It moves into every level of our split-level house of safety and it tries two advanced steps.

(1) Make every man his own safety expert with responsibility for safety on every level.

(2) Make every person think and act safely twenty-four hours a day.

Why is this necessary? Because in spite of all our gains in industrial safety, men still get injured and killed. Some of these happen in industry but many more occur when the individual worker is functioning on another level.

There is a story of a prize fighter who was slightly overmatched. During the first round, his opponent had his fists in our fighter's face most of the time. He was roughed up pretty badly. His second, or man in his corner, however, thought he should encourage him and when the fighter came into the corner between rounds, the second said, "Nice round, boy; he never laid a glove on you."

In the second round, it was even worse, as the opponent began to put more snap into his punches. By the end of the round, our fighter returned again to his corner, a little groggy and much the worse for wear. The second told him, "That was a good round, he never landed a solid blow." The fighter was a little bewildered because he felt the effects of *several* solid blows *and* he was not very optimistic. However, he kept going out for each successive round and coming back in worse shape each time. Finally, when he had been told again that the opponent had not landed any telling blows, he said to his second, "When I go out this round, I want you to keep an eye on that referee, because *someone* is beating the hell outta me out there."

So it is with safety. All the things that have been done are not enough. Someone is still beating the hell outta safety. In most cases it isn't *you*, it isn't *you*, and it isn't *you*. It isn't this group and it isn't that group, but the damage is still being done. There were still those 93,000 lives

lost and those 45 million injuries. Let's see if we can find who is doing it.

National statistics show that nearly 70 per cent of all fatal accidents among workers occur off the job and more than half the accidents resulting in workman disability take place away from the job. This leads us to a conclusion that the safety practices followed by the worker, while on the job, in many cases do not carry over after he passes through the factory gate.

Do you realize that in the decade 1950-1960, nearly three quarters of a million Americans were killed in motor vehicle, public and home accidents—the other levels?

We have been very interested in this off-the-job safety problem at Firestone. Twice each year we run checks of on-the-job and off-the-job accidents. The checks are made in May and December and cover the accidents in that given month. In the past three years, in these checks, we have found 31 lost time injuries on-the-job as opposed to 522 off-the-job. There have been, in these six monthly periods checked, no fatalities in the factory and three off-the-job fatalities.

We have a new challenge and we must face it. We must reach for that split-level type of safety that operates on every level.

A man may have a home workshop which has guards on the power tools; he may wear goggles and observe all the safe procedures when in his shop. *But,* if he has a fire hazard in his attic, *or* he smokes in bed, or he has a car in the garage with bad brakes, or he has objects piled on his basement stairs, or he paints his house using an unsafe ladder, he is the fellow who is beating the hell outta safety.

I read an article recently which made this statement, "Population is increasing rapidly. Since most fires are the result of *human failure,* the expected population growth will increase the number of fires."

This very plainly says, *the more of us there are, the more there are to be careless.* This is a pessimistic statement and tends to assume that you and I are not going to do anything about it. This statement concerned fires but it could easily apply to all accidents caused by human failure. Take another look at that statement.

The more people there are, the more there are to be careless.

My argument here today is that it does not need to be this way. We just have *more* work to do and *more* people to reach. Let's turn that statement into a positive one, full of challenge:

The more people there are, the more there are to learn and practice safety.

Of course this is a big job. Who is going to do it? I gave a title to my remarks—"Safety Is A Man-Size Job." I have built up to this climax. There are two meanings to this title.

First, it means that safety fits your person—it is your size as an individual. It is man size. It is not too big for you. It is not too small for you. It is true that safety is an over-all task, on which all groups and individuals must cooperate, but it is no good at all unless each individual assumes safety as *his* job. Advertisers talk about certain foods being bite size—the size of a bite. Safety is man size—the size of a man.

My second meaning when I say safety is a man-size job, is that safety is a really big problem. When we want to express the large proportions of anything, we say it is man-size. A man-sized cup of coffee is a big one; a man-sized appetite is a big one; and a man-sized safety program is a big one.

Safety begins at this man-size level. Every individual must practice and live safety. Someone has given us this very challenging statement—*Take chances and the chances are that you won't have many chances left to take.*

First, we all operate as individuals. We begin a full-scale safety program by being safe ourselves—and not just on one level—*on all levels.* This, in itself, is a man-size job. You cannot stop a person from having an accident by telling him not to have one. "Don't have an accident," is as futile a statement as "Don't have an ulcer." Someone has said, "You can lead a man to safety, but you can't make him practice it."

In another comparison, you can put collection cans along the streets and highways, for the deposit of rubbish, *but,* whether or not people use them is largely a matter

of personal attitude. You can force persons, by law, to install safety belts in their cars but, whether or not they are used is up to the individual. Safety is man size.

I recently heard a very clever story on individual safety.

Let us suppose I put 331 pills in a bottle. Three hundred of them are simple bicarbonate of soda; thirty of them are harmless sugar pills and *one* is deadly potassium cyanide. The pills all look alike. Now, we shake them all up and offer you the bottle. Are you willing to take a chance, select a pill and swallow it? Not very many of us who love life would take the chance. Yet, traffic safety engineers tell us that these are the odds on running a red light. *Once in every 331 times there is a fatality.* I wonder why the individual looks at the odds so differently when he is behind the wheel?

I believe there are two key reasons why industrial safety has been successful. The first is *concern.* Management has been concerned and has taken every measure to make each person concerned, not only for his own safety but that of his fellow workmen. Labor has been concerned and has cooperated in industrial safety programs. Where there is no concern there is no safety program of any value.

The second key word is *responsibility.* Our safety programs at Firestone have been successful because we have placed responsibility. A plant manager is responsible for safety in his plant. He, in turn, makes department managers and supervisors responsible. Safety is a responsibility just like production, cost, and economical operation.

So, we are back to the individual. The only way we can ever accomplish split level safety is through the individual being *concerned* and accepting *responsibility.*

Safety is a matter of personal attitude. People work, drive and play with the same attitudes as they live. If we can teach people to embrace safety attitudes then they will drive safely, work safely and play safely.

If every individual tries to improve his safety attitudes then he will be safer and he will frown on all persons who do not behave safely. The unsafe individual cannot be tolerated and those who work with him should be critical of his action.

I believe that with men thinking and living safety that there will be benefits all along the line. Workers will be interested in the quality of their product because such quality will contribute to safety. He will be interested in good housekeeping because it has a close relationship to safety. Most important to all, he will think safety and practice safety on every level of his split-level life.

If safety is to be a way of life, appearing in every level on which we operate, who is going to bring it about? I say the job is a man-size one. Management, labor and the individual must all work together in promoting the safety theme. *And* you must operate on every level of your life. More than this, you must operate consistently on all levels. We must be consistently safe. A safety attitude must be practiced at home, at work, on the highway and in the community.

Safety is non-controversial. There is only one side. So we do not need to cast ballots or hold elections. Management and labor have no argument on safety. So we can spend all our energies in promoting the safety attitude.

Certainly we need to continue all the mechanical means we have ever used in industrial safety. We need to continue our drive against industrial accidents *but* we must expand our vision and find a way to extend safety practices to all levels. Howard Pyle, the Council president, has said it very well, *"We want every American home safe and safe at home."*

There is still a man size job to be done in making safety a full-time, around the clock attitude.

There is still a man-size job to be done in industrial safety, to hold our gains and to cut deeper and deeper into accidents and poor safety practice.

There is still a man-size job to be done on the public safety level.

There is still a man-size job to be done on the traffic safety level.

Attitudes are exposed by behavior. You don't have to be a psychologist to develop sound safety attitudes. You do this by the

way you act, by the things you do, by the way you talk. By your attitude you not only control yourself but you teach others. Each individual must have *concern* and he must accept *responsibility*. . .

I will close with a little verse that tells a story:

If everyone who does a job, would say a little prayer,
And keep in mind those other folks depending on his care,
And make a vow, and pledge himself to never take a chance,
The great crusade for safety would suddenly advance.

The job is man-size. Now, let's do what we can to become men capable of a man-size job.

SAFETY IS OUR CHALLENGE

By GEORGE M. HARRISON
President, Brotherhood of Railway Clerks, Freight Handlers, Express & Station Employes, AFL-CIO, Cincinnati, Ohio

It is pleasant to be able to begin my remarks by noting that today's news on the safety front in American industry is the best we have had for some time. The last two quarterly releases of the U. S. Bureau of Labor Statistics, covering the first six monts of 1961, have each reported that work injuries in manufacturing plants reached record low rates during that period. The rate of 10.4 disabling injuries per million man hours worked, which was set in the first three months of this year, equalled the all-time record low for any quarter, established in the last quarter of 1960.

In fact, according to a September release, the first six months of 1961 produced the best six-month average recorded, six per cent lower than in 1960 and 1961 may be the best year on record.

This optimism then is qualified by the injection of a note of caution.

"However," the Labor Department continues, "the greater-than-seasonal increase in May and June could indicate a rising trend resulting from increased industrial activity. Previous experience suggests that increased industrial activity is followed by an increase in injury rates."

Those words are worth repeating, for they certainly make clear that safety is, indeed, our challenge. "Increased industrial activity" says the Labor Department, on the basis of past experience, "is followed by an increase in injury rates."

Aren't the implications contained in this statement truly shocking? Aren't they a tragic indictment of the ethical standards —or the lack of them—which our industrial society exhibits in this area of industrial safety? Is it really necessary in order to reduce the killing and maiming of workers to have that happen only because of a decline in business which brings reduced industrial activity? In other words, are safety and prosperity incompatible?

The facts, based on past experience, would seem to indicate that this is the case. I would like, however, to challenge such a conclusion. I do not believe that prosperity and mounting accidents are necessarily related. In fact, I would contend that greater prosperity *can* make possible the necessary basic expenditures and greater care which will insure greater safety on the job, reduce the staggering economic losses resulting from accidents, and thereby make prosperity even greater.

In recent years, industrial accidents have accounted for only about one-seventh of the deaths and for about only one-fifth of the injuries of the more than nine million different kinds of fatal and disabling accidents suffered within our nation annually.

The shocking thing about these statistics is that they tend to reflect a gross indifference to accidents on the part of us as individuals. This is borne out by the fact that by far the greatest number of disabling accidents—four million of them

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annually—occur right in our own homes. More than two million more accidents annually are of a nature which the National Safety Council classifies as public, and include such categories as those accidents occurring in hunting and swimming and other recreational activities, in transportation other than by motor vehicles, in public buildings, etc. Finally, each year motor vehicle accidents take a tragic toll of more than one and one third million victims and account for the highest number of fatalities, in the neighborhood of over 37,000 deaths annually.

Thus nearly seven out of every nine accidents occur either in our homes, on the highways or in recreational pursuits and other public activities. These are the kind of accidents where individual responsibility clearly is very high. Carelessness and selfishness as individual weaknesses account for most of this tragedy.

We find that the huge annual toll of occupational injuries and deaths has been running at the rate of about two million a year ever since the end of World War II. The yearly average for a ten-year period (1946-1955) was 17,040 killed or totally disabled for life, 83,600 partially disabled for life, and 1,893,000 more temporarily disabled—a yearly average of 1,994,000 injuries and deaths. The annual cost to employers of these accidents, according to a Labor Department estimate which it terms "highly conservative," is more than $3.5 billion. When estimated annual wage losses to employees of $1.4 billion are added, the total yearly economic loss to the nation of occupational accidents amounts to nearly $5 billion dollars.

This needless toll of economic waste and death, pain and mutilation of workers has been going on for too many years. Over the 15 years which have elapsed since World War II ended, some 30 million workers have suffered from industrial accidents and the nation has paid some $75 billion in economic losses to support this accident toll. When we recall that these industrial accidents amount to less than one-quarter of all accidents, the picture takes on an aspect of hopelessness which it may very well deserve.

However, the long-range picture can give us cause for courage and a hope for an end to this tragic suffering and economic waste. The truth is that, over the years, real and significant progress in reducing work accidents is being made. Industrial accidents *have* been reduced steadily since the turn of the century through the elimination of some of the unnecessarily hazardous working conditions, through better laws for the protection of employees, and through joint cooperation of labor and management in many industries. This progress has even picked up speed in recent years. The casualty rate in American factories in 1951-1955 was 17.3 per cent lower than in 1936-1940. In 1956 the number of casualties in manufacturing per million hours worked was 20 per cent lower than in 1949, and in the first six months of this year it was down 30.6 per cent.

These figures indicate that real progress has been made, and is being made, in reducing the toll of accidents in industry. They show that the battle for safety is not hopeless. They prove that with proper concern by management, with joint labor-management cooperation to prevent accidents, and with adequate interest and action by the legislative and administrative arms of the government, accidents *can* be prevented to a remarkable degree. They show that where there is a will, there is still a way.

Before progress of this kind can take place, however, there clearly must be a will to do something about it on the part of both management and labor and government. Nothing proves this more clearly, in my opinion, than the tragic record of what has been happening in the railroad industry in recent years. I happen to know a little something about that industry, since I have spent most of my working life as either a railroad employee or a railroad labor union official intimately concerned about the condition of the industry and the working conditions of its workers.

I have already said that I do not believe that the rate of accidents in industry must be related to its rate of output, as the Labor Department press release quoted at the outset says "previous experience suggests." Certainly, experience in the railroad industry does not bear this out. Most of you are well aware that the current level of operations in railroading has not matched levels in recent years and therefore if the

ratio between accidents and output implied by the industrial accidents experience were to be accepted as a universal assumption, we should expect that the level of accidents in the railroad industry would have been at one of its lowest points. Just the opposite, however, has been the case.

While we have had a substantial reduction in the number of passenger trains operated since the enactment of the Transportation Act of 1958, the number of passengers killed or injured in the first seven months of this year has been running at a rate of more than 2,000 annually, considerably above 1957 to 1960.

I want to emphasize that notwithstanding these accidents to passengers, railroad travel still remains by far the safest of any form of transport. In 1959, for example, the safety record of U. S. railroads was nearly four times better than that of buses, 13 times better than that of domestic airlines and 45 times better than that of automobiles. This ratio, which has held fairly constant for many years, remains about the same even though railroad accidents have been increasing alarmingly. Obviously the increase in railroad accidents to passengers which has occurred this year merits attention, concern and remedial action.

Hazards of train operation have risen rapidly despite all the new mechanical and automatic devices that have been introduced. Remembering that the casualty rate in American factories was 17.3 per cent *less* in 1951-1955 than it was in 1936-1940, it is particularly shocking to note that the rate of casualties in railroad train service *increased* by 60.6 per cent in the same period. Nontrain accidents decreased, but by only 26 per cent.

The accidents arising from motor vehicles colliding with trains at railroad-highway crossings rose from an average of 3.87 per million train miles in 1930-1934 to 4.14 in 1951-1955. Between 1957 and 1960, on the basis of statistics compiled under new reporting rules, the rate climbed from 4.55 to 4.83.

As might be expected, the rate of casualties to individuals in grade-crossing accidents has also climbed.

The railroads today are paying more than $100 million annually in property damage and another $100 million yearly in personal injury claims.

In summary, may I suggest that there is every reason to believe that through real labor-management cooperation, sincere government interest, and increasing individual concern on the part of labor, management and the general public, the toll of accidents can be reduced significantly.

Unsafe surroundings, work places and unsafe conduct take a needless and indefensible toll of human lives and destruction of property that must be stopped.

Vigorous enforcement of laws against unsafe conditions and conduct must be relentlessly pursued. Education and investigation of the causes and the wide dissemination of these facts are essential to understanding of adjustments necessary in our practices and human behavior and our progress to a safe tomorrow.

Everyone has the right to expect safe conduct by his neighbor in the workshop, on the streets and in public places.

The conscience of America must be awakened to the dangers always present in most activities. The slaughter of human beings on the highways is a blot upon America and in many cases results from reckless disregard of the rights of others. I am alarmed by the tempo of American life which encourages disregard of reasonable precautions to avoid this national tragedy.

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PRESENTATION OF LABOR SAFETY AWARDS

By LLOYD D. UTTER

Vice. Pres. for Labor of the National Safety Council, and Safety Dir. of the United Automobile, Aircraft and Agricultural Implement Workers of America, AFL-CIO, Detroit, Mich.

While many union organizations and individual union members have been carrying on outstanding safety programs both on- and off-the-job, no formal recognition has ever been given acknowledging the dedicated efforts of unions in this area. In 1960 the Labor Conference of the National Safety Council approved an award plan designed to give tangible recognition for outstanding safety work of union organizations and individual members of the labor movement.

The award for labor organizations has been designated "The Harry Read Memorial Award for Labor Organizations" and is in three categories: a) The Award of Honor; b) the Award of Merit, and c) the Award of Commendation. This award was named in honor of the late assistant to the secretary-treasurer of AFL-CIO for his work in promoting labor participation in organized safety, for his service on the National Safety Council's board of directors, and for his work as one of the founders of the Labor Conference of the National Safety Council.

Awards to individuals in the labor movement are called "Citations," and are three in number: a) Citation for Distinguished Service; b) Citation for Outstanding Service, and c) Citation for Meritorious Service. They will be granted to unionists who have contributed outstanding work to the cause of accident prevention.

The presentation of the labor awards at the 1961 National Safety Congress inaugurates the labor safety awards plan. This is a history-making occasion and the Labor Conference of the National Safety Council is very happy to announce that seventeen labor organizations and individuals have been granted awards for 1960 for their accomplishments in the field of safety.

"The Harry Read Memorial Award for Distinguished Service to Safety" goes to four labor organizations:

1. *United Mine Workers of America.*

It would take hours or even days to recite the reasons why the United Mine Workers Union is receiving the top award today.

This organization was among the first to take an active part in an industrial section of the National Safety Council, and played a major role in the enactment of the Federal Coal Mine Safety Act.

The United Mine Workers, along with its participation in national safety campaigns of every sort, carries on an endless campaign of education and accident prevention through the United States Bureau of Mines. Over 188,000 members of this great union have completed this safety training with over 300 locals and several districts participating 100 per cent.

It is a distinct honor for the Labor Conference of the National Safety Council to present its very first award—and the very highest award—to the United Mine Workers of America.

Here today to accept the award is Charles Ferguson, safety director of the United Mine Workers of America.

2. *International Brotherhood of Electrical Workers, AFL-CIO.*

Equally deserving of the top Labor Conference award attainable by a labor organization is the International Brotherhood of Electrical Workers, AFL-CIO-CLC.

It is our honor today to so present the highest award to this labor union for its outstanding work in both on-the-job and off-the-job safety promotion and accident prevention.

Among the outstanding activities undertaken by the IBEW over the past two years, we note the formation of a full-time safety department which actively participates in the formation of state electrical safety standards and in establishing joint labor-management safety committees at the local level. It has established an accident reporting system and has formed minimum safety standards under which the electrical craftsmen work.

Other splendid achievements are the distribution of over 400,000 Mouth-to-Mouth Resuscitation Instruction cards as a public service and the establishment of a radiation safety department at the international union level. The union's monthly periodical always carries a full-size safety poster on the back cover and consistently contains printed articles dealing with safety.

Many other factors were taken into consideration by the Awards committee when judging IBEW's activities, but the above should suffice as an indication of the excellent job this union is doing.

Here today to accept the Harry Read Memorial Award of Honor on behalf of the Brotherhood of Electrical Workers is Mel Boyle, administrative assistant to international secretary-treasurer, Joseph Keenan.

3. *International Brotherhood of Operative Potters, AFL-CIO, Local 89, San Pablo, California.*

The Labor Conference is pleased to name another winner of the highest award for a labor organization—the International Brotherhood of Operative Potters, AFL-CIO, Local 89. This local represents workers at the American Radiator and Standard Sanitary Corporation in San Pablo, California.

This local has received so many awards from the National Safety Council over the past ten years that it would leave you breathless to hear them all. Its safety activities are manifold, including such out-of-plant programs as instruction in the safe use of firearms for youngsters and participation in the "Swim to Live" program.

On May 8, 1961, the employees of this plant established a new "world's record" for safety in the clay and mineral products industry by completing a full ten years without incurring a chargeable lost time injury. For that they received an Award of Honor from the Council.

The Labor Conference is proud to present its top award, "The Harry Read Memorial Award of Honor" to Local 89 of the International Brotherhood of Operative Potters, AFL-CIO.

Here to receive the award for the local union is Brother E. N. Steward, local union president.

4. *General Industrial Workers Union Local 146 of the Distillery, Rectifying, Wine and Allied Workers, AFL-CIO, Linden, New Jersey* and a *"Citation for Distinguished Service"* to:

Joseph P. Shepherd, Local 146 safety chairman.

The fourth labor organization to win the Labor Conference's highest award is local 146 of the Distillery Workers union, AFL-CIO, which represents employees of the General Aniline and Film Corporation in Linden, New Jersey.

Here again is an outstanding example of a union that is concerned not only about in-plant safety but community safety, as well.

To give you a brief idea of the scope of its activities, this local union deeply involved itself in a Bike Safety campaign in the community, gave every employee copies of New Jersey Traffic Accident Facts prior to Labor Day, and copies of the Driver's Manual of the State of New Jersey. On August 26, 1960, a major goal was accomplished at this plant when 1,500,000 man-hours were worked without a lost-time accident.

These activities are an indication of the imaginative programs which this local union carries out.

To the local union we are happy to present "The Harry Read Memorial Award of Honor."

To the local's safety committee chairman, Joseph P. Shepherd, who sparkplugged those programs, we are proud to present the "Citation for Distinguished Service."

Here to receive the awards are Joseph P. Shepherd and the local's current safety committee chairman, Hayward Webber.

"The Harry Read Memorial Award of Merit" to:

United Steelworkers of America, AFL-CIO, Local 1010, E. Chicago, Ind.

"Citation for Outstanding Service to Safety" to:

Kenneth S. Kovack, United Steelworkers Local 1010 Safety Chairman.

An "Award of Merit" is presented to the United Steelworkers of America, AFL-CIO, Local 1010, East Chicago, Indiana, which represents workers at Inland Steel Company in East Chicago, and a "Citation for Outstanding Service" to Kenneth S. Kovak,

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chairman of the local's safety and health committee.

Here to receive the "Citation" is Kenneth S. Kovak, who is also the local's recording secretary. Here to receive the "Award of Merit" on behalf of Local 1010 is Louis Chickie, treasurer of Local 1010.

"The Harry Read Memorial Award of Merit" to:

United Auto Workers, AFL-CIO, Local 837, Elkhart, Ind.

An "Award of Merit" is presented to Local 837 of the United Auto Workers of America, AFL-CIO, bargaining agent at the Taylor Products Division of the Tecumseh Products Company, Elkhart, Ind.

Here to receive the award on behalf of the local union is Alice Reed, the local's safety chairman.

"The Harry Read Memorial Award of Merit" to:

Local 5, Industrial Union of Marine and Shipbuilding Workers of America, AFL-CIO

Local 90, Industrial Union of Marine and Shipbuilding Workers of America, AFL-CIO.

An "Award of Merit" is presented to local 90 of the Industrial Union of Marine and Shipbuilding Workers of America, AFL-CIO, and office workers local 5 of the same Union at the Quincy Shipyard of the Bethlehem Steel Company in Quincy, Mass.

Here to receive the awards on behalf of their respective locals are Mr. Fitzgerald, president, and Mr. Houruda, safety committee chairman for Local 90; and Mr. Olivero, president, and Mr. Swizzero, safety committee chairman for Local 5.

"The Harry Read Memorial Award of Commendation" to:

Brotherhood of Locomotive Firemen and Enginemen, AFL-CIO-CLC.

In recognition of its nationally known Safety Awards Program for railroad locomotive crewmen, we are pleased to present an "Award of Commendation" to the Brotherhood of Locomotive Firemen and Enginemen, AFL-CIO-CLC.

Here to receive the "Award of Commendation" is Brother H. E. Gilbert, President of the Brotherhood of Locomotive Firemen and Enginemen.

"The Harry Read Memorial Award of Commendation" to:

International Brotherhood of Pulp, Sulphite and Paper Mill Workers, AFL-CIO.

To the International Brotherhood of Pulp, Sulphite and Paper Mill Workers, AFL-CIO, we present the "Award of Commendation" for their nationwide efforts during 1960.

The committee to accept this award is composed of Vice President Elmer Meinz; International Treasurer Henry Segal, and International Representatives, Wellington Meyer and Edward Zeininger.

"The Harry Read Memorial Award of Commendation" to:

Independent Radionic Workers of America, CUA.

An "Award of Commendation" is presented to the Independent Radionic Workers of America, bargaining agent at the Zenith Radio Corporation in Chicago, Illinois.

Accepting the award on behalf of the organization is Eugene Raetz, president.

"The Harry Read Memorial Award of Commendation" to:

Local 1255, International Brotherhood of Electrical Workers, AFL-CIO.

An "Award of Commendation' is presented to Local 1255, International Brotherhood of Electrical Workers, AFL-CIO, representing workers at the Orangeburg Manufacturing Co., a division of Flintkote, Orangeburg, N. Y.

Here to receive the award on behalf of the local union is Arnold Smith, President, and Allan Kunz, Director of Safety.

"Citation for Outstanding Service" to:

Lois F. Malecki, Local 272, International Brotherhood of Pulp, Sulphite and Paper Mill Workers, AFL-CIO, Everett, Washington.

A *"Citation for Outstanding Service"* is awarded to Lois F. Malecki, safety director of Local 272, International Brotherhood of Pulp, Sulphite and Paper Mill Workers, AFL-CIO, representing workers at the Simpson Lee Paper Company, Everett, Wash.

We are pleased that Lois has come all the way from the state of Washington to receive this highly-deserved award.

"Citation for Distinguished Service" to:

P. L. "Roy" Siemiller, General Vice President, International Association of Machinists, AFL-CIO,

G. G. Grieve, Secretary, Labor Conference, National Safety Council.

And now we have two "surprise" awards to make to two of our associates in the Labor Conference, both of whom have made outstanding contributions beyond the call of duty to the development and growth of the Labor Conference. It gives all of us in the Labor Conference the highest pleasure to present the "Citation for Distinguished Service" to Brother Roy Siemiller, General Vice President, International Association of Machinists, AFL-CIO, and to the Secretary of the Labor Conference, Gil Grieve.

HOW WE WORK ON A JOINT BASIS

By JACK MOYE
President, B. F. Goodrich Local 5, United Rubber Workers, Akron, Ohio

It is a thrill to be here speaking for thousands of our members throughout the United Rubber Workers and for many other unions that have benefited from the efforts of joint safety committees. A little over two years ago this would not have been possible, for the history of The B. F. Goodrich Company shows a continual fight by management against the endeavors of our local union and others to obtain joint safety committees. This was true of a good many of the Rubber Workers' systems throughout the United States and Canada.

However, our members in 1959 had made up their minds that they were going to fight for this committee, along with many other things, and the establishment of such a committee was brought about by the efforts put out through a 55-day strike. Our people fought to get it. They thought it was worthwhile, and realize it even more so today; for remember, it is their fingers, hands, feet, eyes and lives that have been saved through cooperation of this kind.

I am pleased to say that, to my knowledge, this fight against a joint committee was not led by management people who are directly responsible for safety in the Goodrich plants.

To make a committee of this type successful, we have found that it takes action by both parties (labor and management), not just words. We have that sort of action in the Akron B. F. Goodrich joint committee, for any time of the day or night, including Sundays or holidays, we individually and collectively are in the plant looking at problems. We have found that our members get a "lift" when they see the joint committee in the department looking at their problems and attempting in some manner to solve them.

To make a joint committee really successful, I feel that the department committeeman should always have a part in the discussion when a safety problem is being investigated in the department, and that he should be kept informed of the handling that has resulted through the joint effort. Having the committeeman in on a problem, as well as the foreman, brings about better results. It does not leave it in one person's hands and one person's thinking.

Also, I strongly feel that you should make sure that a problem is one of safety or health. Believe me, you will lose the value of the committee if you allow other types of problems to be tied in with safety. There are other people connected with our union that handle personal problems or standards problems. Use your people that are assigned to those types of cases to take care of them. The safety committee's value greatly increases if this rigid rule is followed. Management of this plant realizes that if the joint committee makes a recommendation to resolve or correct some condition, that it is actually tied in with safety, that it bears looking into, and that they had better be about correcting it.

Our committee meets every week, at which time we not only discuss the problems going on in the plant, but exchange

ideas, speak freely to one another, and above all try to see ahead to prevent future accidents. This is one of the great goals of a joint committee. When you learn to drive for future results, you are on the right road.

A desire to help bring about true safety is another requisite. If your committee in its actions gets "humdrum" it will lose the spark that is necessary. Keep people working on the committee that have a mutual trust and that have the drive to make progress in safety.

One of the very profitable benefits brought about through our joint committee is that now dozens of problems are solved without their ever being put in the hands of the joint safety committee, for we have found that department management does not want to appear on the bi-weekly write-up that is distributed throughout the plant and which is brought to the attention of the higher groups of management. This, in my opinion, is one of the greatest gains of a joint committee. Now the foreman in the department is making it his business so very often to be about resolving the problem and not just sloughing it off.

If you can make the people that work in the department realize that they can obtain great results by cooperating with and putting pressure on their immediate supervision, part of your battle is won.

We of the Goodrich URW unions fought long in 1959 to obtain, among other things, a joint, forceful safety committee. We have pledged, and are using the same effort, to make it the best one possible. Jointly we have corrected many hundreds of health and safety problems in the past two years. We are proud of our joint safety committee; we hope you are of yours.

HOW WE WORK ON A JOINT BASIS IN ACCIDENT PREVENTION PROGRAMS

By THOMAS J. CAIN, JR.
Director of Safety, The B. F. Goodrich Co., Akron 18, O.

Talking with you this morning as an industrial safety specialist for the B. F. Goodrich Co., which has eight United Rubber Workers locals using joint, or co-operative I like better, safety program activities, I want to emphasize that such participation has a very decided and definite plus.

Why do I believe that co-operative, management-labor or labor-management, accident prevention efforts are desirable? Let me tell you that such thinking was not always the case, even with my own company. I remember that for some ten years the URW and especially Local 5, pleaded, urged, and struggled for such a committee as part of the agreement. Finally, and th anks to the untiring efforts of Jack Moye, we have had co-operative committees in the eight plants with URW locals, for a little over two years.

The results have been splendid. I can report this to you with no reservations.

Our agreement states that problems which are not resolved to the satisfaction of the union members of the committee (three in number, with three company members) may be taken to the step immediately preceding arbitration for handling. We have had no such problems to date. Our goal is to see that we don't have any.

If you are one of the "doubting Thomas's" as to the effectiveness of co-operative handling of safety problems, I can tell you that you may have overlooked one of the big advantages of such arrangements. Hundreds, yes thousands, of situations which might ordinarily be submitted as formal grievances requiring hours and hours of discussion and reams of paper work, are handled on an informal basis—solutions are arrived at with promptness and the time required for "labor problems" is greatly reduced. Remember, these problems normally require a great deal of time and expense for the members of your Local, too; so the ad-

vantage in savings of time and money is not by any means unilateral.

Your plants will be safer and working conditions will be improved with co-operative effort. After all, that is the real goal —to keep our employees and your members safe at their work, and there actually is now with us a much greater effort to extend our efforts to off-the-job safety as all of us should be doing. In a recent meeting of the co-operative committee in Akron, a request was made for an auto seat belt safety exhibit to be placed in the Local 5-URW hall.

I wish I could tell you that, as a result of co-operative efforts in accident prevention, we have practically eliminated injuries. Unfortunately such is not the case. At this moment all I can report to you is that I am thoroughly sold and our industrial relations heads are sold, on the job which has been done to date in spreading our accident prevention programs to have direct participation on a formal basis by URW members through their safety committee representation.

Undoubtedly one of the chief reasons we have been successful is that once the agreement was reached to provide joint participation, there has existed sincerity of purpose from both sides.

As in all endeavors people make the difference. We have had the "right" people —for example in the Local 5-Akron joint safety committee the president of the Local, Mr. Jack Moye, set the right example by serving on the committee at the outset and has continued to serve, despite his busy schedule. Another member representing Local 5 is a past president of Local 5, Mr. Jack Saylor, and he's here today attending the Labor Section of the Congress. In the other URW locals similar leadership has been provided. I can well understand how, without such leadership and sincerity of purpose, similar committees elsewhere might have "rough going" at least in the getting-started period.

In closing my report to you, I would add that I do wish all local unions including URW might emphasize to a greater extent the observation and correction of repeated unsafe practices. After all, all of us are our own best safety directors and the area could be extended to include our "buddy" working next to us.

Also, to our good friend John Kumpel, Safety and Compensation Representative, URW International, I urge greater efforts with additional safety training for URW members.

Let's all get at it—there's a big job to do. Co-operative, or joint safety committees can and must help.

HOW WE WORK WITH LABOR UNIONS IN OREGON

By WM. A. CALLAHAN

Commissioner, Oregon State Industrial Accident Commission, Salem, Ore.

In my state, Oregon, safety is so intertwined with Workmen's Compensation that it is impossible to talk of one without speaking of the other. The Legislature has placed the responsibility for industrial safety in the hands of the Industrial Accident Commission and has very wisely decreed that up to five per cent of all income of the Commission may be used to prevent accidental injuries.

There is a humanitarian reason as well as a monetary reason for doing so. I believe it to be true that those responsible for caring for injured persons and knowing firsthand of the results of accidental injuries, both in suffering and in money, are more enthusiastic about a safety program than others with less direct knowledge.

The framers of the Workmen's Compensation Law in their discussions nearly a half-century ago knew and realized that an occupational injury prevented would elim-

inate a claim. There would, of course, be a saving of money; but more important, human suffering would be prevented.

The committee of nine men who drafted the bill for the law had three prominent labor representatives as members, and the Commission provided for by the law had among its three members a representative of labor. Wm. A. Marshall, the labor representative on the original commission, had also served on the committee that drafted the bill for the law. Mr. Marshall, now advanced in years, lives in Seattle. He was a member of the Commission for nearly fourteen years during the formative period and was a staunch advocate of safety.

Prior to the establishment of Workmen's Compensation in Oregon, a group of labor leaders had been active in promoting the Employers' Liability Law. This was essentially a safety law and provided that an employer who was negligent in providing a safe place of employment could be sued for damages by an injured employee and could not use the three common-law defenses formerly available to employers.

Labor men circulated petitions to put the measure for the Employers' Liability Law on the ballot. At the November election in 1910 the voters, by a substantial majority, enacted the measure into law. In 1910 there were only 14,878 union members in Oregon, but those dedicated pioneers of safety persuaded 56,258 voters to follow their example, while only 33,943 voted against the measure. Oregon has never been a highly industrialized state, but to its everlasting credit it has firmly resisted all attempts to pass a right-to-work law.

Labor. men were very active in their campaign for the Employers' Liability Law. In the Labor Day parade of 1910 more than sixty men carried a banner 300 feet long painted by Otto R. Hartwig urging people to vote for the measure. Brother Hartwig is known to some of you, and even as a very young man was a true believer in safety. The Oregon State Federation of Labor purchased space in the *Voters' Pamphlet* of that year pleading for support of the measure.

I was not privileged to know all the six men who were members of the committee that drafted that masterpiece, but I am certain that those I did not know were fine gentlemen equal to those I have known. Two of this group are still with us—Brother Bert W. Sleeman and Brother Otto R. Hartwig, mentioned previously. Both were young men then, Brother Hartwig in his early twenties, but both then, even as in later years, leaders and staunch union men. That message in the *Voters' Pamphlet** is worth reading to you. It was as follows:

"This is the call of the plain people to the plain people for relief. Oregon is making a name for itself as the best home for the immigrant because of its political reforms and the powers which the people have taken into their own hands, and yet Oregon stands backward and almost alone in her failure to recognize that the injury or death of a workman is as much a part of the conduct of the business as the bursting of a boiler or breakage of the machinery and to prevent the death or injury of the workman should be as much a part of the cost of the business as the protection of machinery or replacing old with new. The iron machinery is insured and guarded from injury in every way, but the human machinery is, in fact, too cheap to be worth protecting. Every form of capital receives the aid of special privilege laws; land held in vacancy, money authorized to be issued by certain institutions only; and manufacturers are protected by tariff laws. The only factor in the production of social wealth which is not protected in any sense whatever is labor. Babies are born without limit and must live, and there are always plenty waiting to take the dead man's shoes. This bill does not ask so arbitrary and artificial a thing as that the laborers' wages be protected and guaranteed by law, but it does ask that the employer be compelled to use diligence in protecting the laborer as to his life and limb, while earning wages; that a safe place in which to work be provided and that ropes, chains, beams, machinery, etc., be properly tested before the workman is asked to risk his life with them. Surely this is a reasonable request. Ten per cent of electrical workers are killed. It is a more hazardous employment than war. The same may be said of workers on bridges and high steel frame structures.

"Senator Elihu Root, in his speech before the National Civic Federation, said: 'It seems to me that our present system of dealing with those injuries that come to our employes in our great industrial life is foolish, wasteful, ineffective and barbarous. . . . The cost of support which is made necessary by the injuries suffered in a business is just as much a part of the cost of the business as the tools that are worn out and the material that is consumed. . . .'

"The bill itself is drawn from those of Illinois and Pennsylvania. It is not only inherently just in itself and such as no just man or humane man ought to complain of, but it is good policy for Oregon, if she expects to be an attractive home for intelligent workers. Read the bill.

"OREGON STATE FEDERATION OF LABOR.

"By J. F. CASSIDY, Secretary."

*Oregon Secretary of State, *Voters' Pamphlet*, 1910, pp. 85-86.

That is the heritage bequeathed to us today by those sturdy pioneers of yesteryear. Could we do otherwise but carry on the work that they started?

The conditions of a half-century ago that caused those men to rise up to action were by today's standards absolutely terrifying. Structural iron workers and electrical workers lost 10 per cent of their members each year in fatalities. Joyce Kilmer in his immortal lines wrote, "Only God can make a tree." God must have been fond of Oregon, for He covered millions of acres of the state with beautiful trees—pines, firs and hemlocks—the finest examples of His handiwork.

Those beautiful trees fell prey to the demand for lumber. Logging methods of fifty years ago were crude. Much of the tree was wasted; and worse yet, human beings were sacrificed in the process of converting the standing trees into marketable lumber. The wrath of God seemed to descend on the people for their wasteful methods of harvesting the trees that God had made. The terrible toll in human lives and broken bodies called to the higher instincts of men for a safer and better way to do it. Even so, change came slowly.

As the Industrial Accident Commission became better established, the safety program developed with it. The Legislature in 1939 entrusted the Commission with the administration of the Oregon Safety Law, giving the Commission complete charge of industrial safety. With that came the authority to promulgate safety codes which, when filed with the Secretary of State, have the force and effect of law. The annual budget for safety work is nearly $800,000. Counting the fifteen girls in the office, this finances a force of 102 persons at this time. Everyone from the Director to the newest person is dedicated to making our state a safer place in which to work.

Labor unions started the movement for safety in Oregon, and it is only to be expected that their interest should continue. Union members serve unselfishly on code committees, supplying knowledge that only those actually performing the work can have. These committees, composed of the best informed persons from Labor, employers and technical men, aid the Commission in establishing safety codes for the industry of our state. Without the help of these splendid union members, the Commission would find it very difficult to develop and revise the safety codes.

Our Commission believes in bringing the message of safety to the people we serve. Each year regional safety conferences are held in various parts of the state. Local rallies are held, sometimes in remote areas. Union members help greatly in promoting these affairs. For many years it has been the custom to have as co-chairmen for all conferences a labor man and an employer. We try to balance the program with employers and labor men. One of the best safety skits I have ever witnessed was acted out entirely by loggers dressed in genuine working and worked-in clothes.

One of the really spectacular demonstrations, and one that is used quite frequently at our safety conferences, is a demonstration of safe handling of high voltage electric lines. These lines are not energized, but are handled as though they were. After that demonstration an accident is simulated: a flashlight bulb very graphically imitates an arc; a lineman drops over, only his safety belt holding him. His partner on the pole immediately goes to work applying artificial respiration. The ground men spring into action: the radio in the truck is used to call for an ambulance;. tackle is rigged to bring the injured man down from the pole. Meanwhile the second man on the pole top continues giving the "victim" artificial respiration. If it can be staged outside, the wail of the siren on the approaching ambulance may be heard. The audience is tense; if they are seated you may be sure they are on the edge of their chairs.

This demonstration requires employer participation, of course, and I wish to pay a compliment to our Oregon employers in all industries; they are wonderfully cooperative. But this demonstration is almost always performed in off-working hours by union linemen, cheerfully and for free. Another example of union members promoting safety.

Time does not permit me to tell of all the examples of cooperation between the Commission and labor unions and their members. Several former union business agents and officers are now continuing to serve their brother members as safety representatives in our accident prevention di-

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My presentation to you would not be complete without telling you of the program for safety in the pulp and paper industry. This was presented to the employers by labor people at a wage negotiating meeting more than fifteen years ago. The employers accepted and it was agreed that the safety program would be a joint affair. It works far better than when the employers tried to do it alone. I have attended their state meetings, and I have attended their joint meeting of the three west coast states —Washington, Oregon and California. All the delegates speak the same language; it is impossible to tell who represents the employers and who are the delegates sent by the unions. This joint safety program of the Pacific Coast Association of Pulp & Paper Manufacturers and their workmen, union members, has gained national fame and recognition.

In early 1944 I was a delegate from my local union to the Portland Building Trades Council. I evidently talked too convincingly of the need for a health and safety committee. It was formed, and I found myself to be the chairman. This committee still functions after more than seventeen years.

We asked the Commission to teach a basic safety course to all the business representatives of the Council, and for the ...t twelve weeks, every Tuesday from ...A.M. to noon, the Commission's safety instructors taught the business representatives of the Portland Building Trades Council how to analyze the causes of accidents, how to look for unsafe conditions, the most successful methods of correcting unsafe attitudes, and all the other items that were taught to the Commission's safety representatives.

I am quite sure that it would be safe to say that upon the completion of the training course, the Portland Building Trades Council had the best safety-trained business representatives in the country.

I would not have you believe that in Oregon we have no problems. We have plenty. We have very few large employers, none of the huge plants that people of the eastern part of the nation are accustomed to. Most of our employers have less than fifty workmen and many, many of them less than ten. To make this situation even more difficult, there is a tremendous turnover in these small employers. This is particularly true in logging and construction work.

The growing custom of subletting parts of the work has been a big factor in the increase of these small employers. We have found that working with unions is of tremendous help in coping with the problems present when workmen shift rapidly from one employer to another. We have our problems with employers who want to cut corners, but what troubles me most are the problems we have with workmen, our own union members. It is most distressing to have workers who for some reason seem to feel that they have put something over on someone when they get by with a violation of a safety rule. Fortunately, there is much less of this than formerly.

As late as fifteen years ago the Commission's safety men sometimes met with less than a cordial reception when visiting places of employment. I am pleased to say this has greatly improved. In fact, there is complaint now that our men do not get around often enough.

I try to attend all of the labor conventions in the state and bring some of the Commission's safety people with me. If for some reason I cannot be there, I have someone there to represent me. Our people are well accepted, and the acquaintances made are a great help in the future. It is much easier to transact business with a person who is not a stranger.

We still have far too many workers killed and maimed; last year the Commission paid $25,844,000 to injured workers or for their medical care. I would hate to think what this figure would be if we did not have the excellent safety program that we have. The accident frequency for all industry of the state has shown a steady decline over the years. Last year the frequency was lowered by the phenomenal figure of 9.47 points. That is too great a reduction to hope to duplicate every year, but we will make every effort to reduce further accidental injuries.

Oregon's safety program has gained national recognition, and it could not have been accomplished without the cooperation

of union men and women. It is very difficult to measure just how many lives have been saved. A study made a few years ago showed that if the frequency of five years previous had been applied to the employment of 1958, the claim costs would have been about $5 million more than they were. That savings of $5 million of claim costs means that fewer persons were injured, fewer wives became widows, and more fathers came home to their children after the day's work.

No monetary value can be placed on the blood that was not spilled, the bones that were not broken, and the suffering that didn't occur. This is the real achievement of a safety program. This is the end for which dedicated people serve. Conservation of manpower and the alleviation of human suffering are being accomplished.

Oregon has witnessed a phenomenal improvement in the conditions that existed when Oregon citizens, aroused by the appeal made to them in the *Voters' Pamphlet* by those union leaders of more than a half-century ago, established the Employers' Liability Law by their campaign for votes for safety.

Although much progress has been made and we are encouraged by that progress, the job is not yet done. The number of widows, while smaller, is still too large. Fewer workmen are disabled, but there are still too many. The standards of the future must be higher than the standards of today. We of today must carry on the work begun many years ago by our predecessors and pass on to our successors an inspiration to accept as their motto, "One injury is too many."

OTHER PRACTICAL APPROACHES FOR WORKING TOGETHER IN SAFETY

By MRS. PAULEEN J. FIELD
Chairman, Safety Committee
United Auto Workers Local Union No. 652, Lansing, Mich.

I wonder just how many of you have joint industrial health and safety committees, partial cooperation—or none at all. We all recognize the fact that some large and small industries, with wise managements, do have joint labor-management safety committees. But very few companies with multi-plant operation enjoy 100 per cent cooperation between labor and management . . . "in each and every section of the country."

Ford Local 600, for example, has a full-time safety director, at the union level, as well as a workable strike clause to take care of unadjusted industrial health and safety problems.

The West Coast Papermakers and Paperworkers enjoy cooperation with management in regard to safety.

These examples are but two, however, of a wide area which is as yet untouched by complete harmony or even agreement between management and labor in respect to the industrial health and safety movement.

Well-coined phrases such as "Safety is everybody's business," come to mind, let us say, instead, that "The safety movement cannot survive without active participation of all citizens, including labor and management, in whom dedication and selflessness are the prime requisites."

Our safety committee has approached management for a top level meeting to discuss areas of safety we could agree on, such as traffic and home safety, as well as protective equipment. We were promptly informed that management, and General Motors, maintain that planning and administering the safety program and providing adequate safety facilities is a management responsibility which they always have and always will continue to fulfill. This being the case, they could see no need for a labor-management safety committee.

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is a narrow-minded and shortsighted attitude. Insofar as our safety committee was concerned, this viewpoint added incentive and the necessary stimulus to continue to work in safety, with or without management's cooperation—not only to prove to management our sincerity in improving existing conditions, but also to do what we could to educate the membership and their families against fatalities occurring on or off-the-job.

How then do we operate without management's cooperation in safety?

1. Form your committee, as large or as small as your needs, depending primarily on plant size.

2. Conduct training classes for the committee so they may more readily recognize hazards. This should also include a Red Cross class. Resource people may be obtained through your international union health and safety division, the Bureau of Labor Standards, Washington, D. C., state labor and health departments, and the National Safety Council, all free of charge.

3. District committeemen, stewards, top committeemen, and the membership should also have education. If you are working without management's cooperation, safety committeemen just will not have access to every area of the plant, therefore liaison should be established between the shop committee and safety committee at all times.

4. Safety grievances in most instances are useless. No human being has the right to bargain another's life away. It usually takes fifteen days before the grievance is on the table to be discussed by labor and management. Untold injury or even death can be caused in the meantime. There is either a hazard or there isn't. The employee should have the right to refuse to work in unsafe conditions without fear of being penalized. Should this be in dispute, the international should be called in at once.

5. Provided you have all the facts, a very successful and effective method of keeping your membership informed is to publicize the case in the union paper.

For example, we were having trouble with an over-zealous foreman grabbing bumpers off the line that he thought had not been buffed enough. Result was, not only did a couple of bumpers get away from him, thereby endangering the lives of the employees in the department, but he ended up being injured himself. This was contrary to all the training he had supposedly received. Employees in the department were greatly relieved and their morale boosted when the condition through publication was corrected.

Weekly or monthly articles on all phases of safety, bulletins from your state health department, National Safety Council, as well as safety cartoons, will attract attention and bring about an increased awareness to the membership and their families.

6. Where the local union consists of several units, each dealing with a small plant, every unit should have an industrial health and safety committee. The local union hall should be the focal point for all meetings. Safety material, training manuals, etc., would be on hand for all the committees to utilize. Safety posters from the National Safety Council can be placed on the local union bulletin board.

The chairman for each of these unit safety committees could meet every two months to discuss the different plant problems and have an exchange of ideas.

7. Wherever possible, make the entire membership part of your program. Set up a booth during local union elections or at membership picnics. Literature can be handed out concerning industrial safety, home safety, traffic safety. In fact, cover the whole field. You will be surprised at the interest shown. During the 1958 strike, for instance, our committee, with the help of the picket captains, gave out 5,000 copies of the Michigan traffic violation point system.

Ten or twelve-minute films on different phases of safety, are usually available which can be made part of the safety committee's report during membership meetings. The steward and committeemen's monthly meetings serve as an effective method for not only education but also as a source of information in regard to existing conditions in the various districts in the plant.

Above all—keep records. I'll go into this important area a little further on.

If, however, you do not receive satisfaction in correcting an existing hazard, after going through the foreman, general foreman, etc., we in the U.A.W. have found the most effective method to be the following.

Send direct to the international health and safety division: (1) the problem and what it involves; (2) the area; (3) the foreman's name; (4) the particular plant involved. The international industrial health and safety personnel will, in turn, send the information to the state labor department or health department; whichever is the most appropriate place. In this way, not only the international will receive an answer, but also the local safety committee. Depending on the reply, the committee can follow up to see if the condition is corrected.

Both the U.A.W. safety director and industrial hygienist also may enter the plant by request, through your international representative and/or regional director.

When management sublets a job to outside contractors, try to convince them to include the plant's safety standards in the contract. Nothing is more demoralizing to the regular employees than to work side by side with these workers when they are not required to wear the same type of safety equipment, such as safety glasses, etc.

It is not unusual to find that each management in G.M. has different ideas about safety standards and the wearing of protective equipment. While one plant has 100 per cent eye protection, another has eye protection in only what is considered hazardous areas. For their own protection female employees wear caps, glasses, short-sleeved blouses and slacks in one plant, while in another, dresses, skirts, no head protection are the mode. This can only lead to misunderstanding and an indifferent attitude on the part of the employee in regard to the safety program.

Joint labor-management safety committees can be of great use to management in both small and large plants. The foreman, a very busy man, is responsible for production, quality, and, supposedly, safety in his department. On top of this, he has to worry about efficiency. It is not unusual to have the foreman call the employee to the desk every so often and say—"Sign here." If the employee asks what I am signing for, the reply is, "I've just given you your safety talk," or, "You've had your good housekeeping talk for the month."

To further aggravate good working conditions and employee morale, it is not unusual for the employee who receives an injury to be given a reprimand for working in an unsafe manner, even though in the majority of cases, by having the proper engineering or education, the accident would not have occurred in the first place.

Safety committeemen trained to detect hazards could eliminate many of these accidents before an injury or death does occur. He also could talk to his fellow employee, should he, through ignorance or lack of knowledge of the job, be working in an unsafe manner.

Safety signs throughout the plant should be changed with ever increasing regularity. By signs, I do not refer to the monthly posters sent out by the National Safety Council, but to the large signs placed throughout the plant by management.

However, even the posters should be in a prominent place for all to see. Employees become so accustomed to the same old sign, it doesn't even register; thus the need for eye catching slogans.

Department-wide safety contests, with prizes, for the lowest injury rate should be conducted. A catalogue of prizes, sent to the home so the family can be made a part of the contest, would add incentive. Not feasible, you say? Why not, when thousands of dollars are spent on recreation prizes.

Management and labor could conduct a joint safety check on cars in both a spring and fall campaign, and certainly all steps should be taken to include labor in the local safety councils which are a part of each community and represent all segments of society except labor.

None of the previously mentioned points are going to be easy. It will take courage but, as Winston Churchill said, "Courage is rightly esteemed the first of human qualities, because it is the quality that guarantees all others."

Perhaps you have heard about the man who went out to play a game of golf.

After teeing off, he found that his golf ball had landed in a sand trap, right smack dab on the top of an ant-hill. Well, each time he took a swipe at the ball to get it out of the trap, he killed a couple of thousand ants. This kept up until there were only two lonely ants left. One ant looked at the other and said,

"I don't know about you, buddy, but if you want to survive, we'd better get on the ball."

This is what we must do in labor.

We have approximately 78,000 local unions throughout the United States. With 63,000 of them in the AFL-CIO, the potential for a working force for safety is great indeed. One of the reasons for organizing in the 30's was working conditions. Where do we find ourselves today? In most cases, at the bottom of the totem pole.

There is not enough concentration on prevention and the cure of industrial injuries or industrial caused illnesses. It does no good to put the cart before the horse, so to speak. Having industrial health and safety subordinate to Workmen's Compensation is equivalent to the American Medical Association deciding to eliminate medical research and investing in cemetery lots.

The four "E's" of safety should be: Education, engineering, enforcement and effort.

After an injury or illness occurs, $100 or even $200 will never compensate the worker or family for the lifetime of misery ahead. You are lucky if you receive $36 a week, which cannot even begin to keep a family of three. The end result is welfare, with all taxpayers sharing the burden.

We in the union movement do not fully utilize the tremendous resource of our membership which is available. Even though our vice presidents, regional directors, international representatives, etc. recognize the importance of industrial health and safety, it is brushed aside in too many instances for what are considered more important things.

Must we continue to make progress in safety through tragedy? Has manpower become such a glut on the market that we can turn aside without a thought to preventing another occurrence?

Our own George Brown put it very aptly when he said, "Would you mind getting to the job, staying on the job, and still live long enough to collect all the benefits the union has won across the bargaining table? More of our people are being killed than we are organizing."

It is up to the rank and file, therefore, to go to work and put pressure on from the grass roots:

1. To make the industrial health and safety committee a mandatory standing committee in every local union, in our constitutions, through convention action;

2. Through membership action, to request regional health and safety conferences at least bi-annually;

3. By requesting our regional directors to include a full week of industrial health and safety classes at our regional summer schools;

4. By taking out membership in the National Safety Council Labor Department.

Only by doing these things will we build the solid foundation which is necessary to grow on. In this way also we will eventually receive the language we so desperately need in our contracts and the legislation to back us up.

We must keep our international health and safety department aware at all times of industrial hazards. In the event of injuries, keep case histories. As U.A.W. Region 1C Director, E. S. "Pat" Patterson, said at a recent safety conference held in Lansing, "Each year we negotiate we are faced with the same problem. Management at G. M., for example, polishes all their safety awards and hangs them on the wall. Each time we bring up health and safety, they point to their wall. We realize that problems exist; the law today makes it necessary only to report lost-time injuries."

However, it cannot be emphasized strongly enough that if we continue to spread our adequately trained union safety personnel so thin, the rank and file have a stupendous job ahead. Most of our international unions have only one or two safety personnel to take care of the U. S. Other internationals have only part-time personnel, no established industrial health and safety departments, or even safety film libraries for the rank and file to go to.

In the state of Michigan we have to work with an antiquated 1909 industrial law, no building code, and we had 40 construction workers killed last year. Even our school hot water boilers are not covered under the law, to protect our children. For lack of adequate staff, the state labor department could make less than half of the annual inspections required under the horse and buggy law. There are approximately 16,000 industrial establishments in the state, with 22 inspectors. We need at least 144 more to

do the job even under the present inadequate law. It is little wonder that workmen's compensation insurance rates jumped 11 per cent last year.

It was interesting to note that school custodians met in East Lansing recently. While there, one minute of silence was observed for a fellow custodian who unfortunately was blown up while performing his duties at the school. By the grace of God, it was one unfortunate victim and not a whole school of children. But even one is too many. Not one recommendation was made from this meeting to the House-Senate Labor Committee to amend the law to cover all boilers, increase the Labor Department staff or provide adequate funds for the department.

Each of these points discussed with you today are but part of the overall picture. Management and labor should join hands with pride and humility to work side by side towards a common goal, which is greater than all of us.

Nothing great was ever achieved without enthusiasm. This is 1961 with all its automated machinery, new hazards from chemicals and radiation. The old problems still have to be whipped before we can lick the new ones. We have a long way to go and a short time in which to do it.

Return home determined to work enthusiastically towards wiping out the misery and heartbreak caused by these needless deaths and injuries.

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