

schools do offer advanced degrees. The changes indicated above will not take place overnight, but rather will be the result of a blending of the on-the-job training and specialized education programs for the next few years. Much remains to be done in developing formal educational programs for safety professionals and in stimulating capable young people into entering the field.

This is the creative challenge of tomorrow—not only improved performance on the job but also professionalizing and perpetuating this field of endeavor.

Summary of achievements

The safety movement has helped save many thousands of lives. It is saving industry and its employees billions of dollars a year.

It faces the future with great resources for eliminating accidents in the future—resources in know-how, teamwork, good will, and trained and dedicated safety workers.

It has, therefore, done much to meet the double challenge presented to it—to deal with accidents now, and to build soundly for the long-range attack upon accidents in the future.

The Safety Movement Today

The answer to the question “What has the safety movement accomplished?” is in purely positive terms—accomplishments, advances, achievements. To answer to the question “How does the safety movement stand today?” demands a look at what is wrong, as well as what is right, with the present situation. The answer can be found in an appraisal of how the safety movement stands in relation to how it ought to stand. The first point to be considered is simple and grim.

- Accidents still bleed this country of more than 114,000 lives a year, cause more than 10.8 million injuries, and account for a financial loss of more than \$22 billion.

- Work accidents destroy more than 14,000 lives a year, about half these deaths occurring in what is normally considered industry. Work accidents injure 2.2 million persons annually and cost more than \$7.4 billion.

In 1968, more than twice as many workers were killed and nearly one and one-quarter

times as many were injured off the job as on it.

All injuries to workers, both on and off the job, caused a loss of about 100 million man-days of work directly, and 200 million man-days indirectly.

Within the industrial community, there are very large variations in accident rates from industry to industry and from company to company.

Trade, service, and manufacturing are, on the average, low-accident businesses. Transportation, agriculture, construction, and the extractive industries are high-accident fields. These low and high rankings hold for both deaths and injuries. The communications industry has accidental death rates substantially below the national average, and the lowest injury rates.

How much the variation from one industry to another reflects unavoidable differences in hazards and how much it reflects other factors has not been fully determined. Certainly, the mining industry, for example, has had a maximum amount of regulation and assistance from government, yet its rate remains high.

In construction and lumber operations, the high rates may be due in part to the fact that the typical operation is small, and size of operation seems to be related to injury frequency.

Large and small establishments

A 1960 study of manufacturing companies and plants reporting to the National Safety Council showed that operations with more than 500 workers employed 86 per cent of the workers, but suffered only 69 per cent of the injury accidents. Operations with fewer than 100 workers had 2 per cent of the employees and 4 per cent of the injuries. Operations with from 100 to 500 employees had 12 per cent of the workers and 27 per cent of the injuries. The smallest establishments had frequency and severity rates almost triple those of the largest.

The seriousness of the small-enterprise problem has been widely recognized for many years, and the National Safety Council has devoted much effort to meeting it. Some promising steps have been taken to increase small-establishments participation in the organized safety movement, principally through the establishment of liaison between the Na-