problems. This calls for a continuous program of pointing out to each department head what can happen unless the authority of the Safety Department is obtained.

7. A sensible and practical accident analysis report presented in a clear, business-like manner will create management interest and encourage participation.

8. Use all your examples of where you are preventing accidents. Too often, all the emphasis is placed on the accidents which have happened.

Combining these eight suggestions we arrive at the importance of the following points:

Be practical.
Safety and efficiency go hand in hand.
Get into every production problem.
Be enthusiastic about new equipment.
Take the manager into the shop with you.
Show the value of strict control.
Accident analysis must be made to appeal to the production executive.
Show where accidents are being prevented.

Time does not permit me to go into many other points of value, but it is my considered opinion that the full development of these eight points will put you well on the way to active management participation.

No industrial manager wants accidents. Proof of this is clearly illustrated in the City of Chicago today. Over 10,000 Safety Directors and their staffs have been permitted to gather here to discuss how to make industrial plants safe. To me that alone is an outstanding example of management participation.

Finally, always keep before all concerned how men get killed in industry.

Here are a few examples gathered from Safety Council and Government reports:

WELDING—A company bought some salvage pipe to use on a low pressure line. A father and son were given the job to weld a fixture on it for a pressure gauge. When the torch cut through the pipe, the father and son were killed. Investigation revealed that the pipe had come from a war plant manufacturing gun powder. LESSON—Find out where salvage material comes from, and above all, thoroughly purge pipes or tanks and take explosion readings before cutting or welding.

440 VOLTS—Temporary defective wiring caused the death of a millwright. A new shipping dock was built alongside a building. Everything was ready to run except the conduit to enclose the 440 wiring. It was decided to run it for a short trial. The bare cable rubbing on the steel created a contact and electrocuted the millwright. LESSON—complete safety equipment before starting operations.

GASOLINE—A cleaner entered a fan-casing to clean paint residue. He started the job with gasoline and a defective portable light. A spark, and the gasoline flashed and burned him to death. LESSON—Never use flammable liquids for cleaning, and where necessary, use a vapor-proof light.

CRANES—An engineer climbed onto a steel plate between the building trusses and crane rail to study a new layout. The crane came along and crushed him to death. LESSON—Notify crane foreman, crane operator and place temporary safety bumpers before anyone is allowed on crane rails.

SHOT BLAST MACHINE—Following the repair of a large shot blast machine, everyone thought it was ready to run. After lunch it was started up, and among the stock they found parts of a man. This turned out to be the repairman who apparently decided to make a final check. LESSON—Lock the main switch and make sure the key is in the repairman's pocket and nowhere else.

FLOOR TRUCKS—An employee operating a power-driven floor truck approached an elevator, forgot how to stop, went through the gate, fell five floors to the elevator pit and was killed. LESSON—Floor truck operators should be given the same strict safety examination as the driver of any other truck, and particularly warned to pull up at an elevator facing at an angle away from the elevator gate.

PUNCH PRESS—An operator reported to his foreman that a bundle of steel piled near his press was dangerous. The foreman in the rush of business forgot to make a note of it. Two days later the steel fell and crushed the man's foot. The foot had to be amputated and later the man died.

One, of course, could go on and on, but these examples properly described would inspire any management to ACTIVE MANAGEMENT participation.

Developing and Administering A Coordinated Safety Program

By IVAN F. LeGORE

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Experience certainly has proved it desirable to provide a staff specialist or staff specialists who have as one of their functions the job of keeping management informed of accident hazards which may exist or develop. Definition of their place in the scheme of things is all-important.

The term "safety engineer" is one so misunderstood that its use in our field of endeavor has rendered accident prevention work a disservice as over-emphasizing the physical or mechanical factors in the prevention of accidents. I suggest substituting for it the term "safety specialist," meaning the one who specializes in accident prevention and health promotion in his organization, whether full-time or part-time, or whether an engineer or not.

The safety specialist has administrative duties and educational and training functions, as well as an obligation to see that plant environment and operating methods and practices are safe and healthful. He applies known technology, non-engineering as well as engineering, to all the things that need to be done to protect lives, limbs and health, and he mixes with his technology a bit of management, organization, salesmanship and finance.

I am afraid too many persons employed as safety specialists get so near-sighted from doing technical work of an engineering nature that they ruin their perspective and neglect the administrative functions that would make their activities much more effective by making their influence felt throughout the company and plant organization.

Organized safety work in our membership is directed by the Accident Prevention Committee, and the safety program is developed and administered in accordance with the committee's wishes by the Accident Prevention Bureau of the Association. The bureau informs the association membership of the safety and health characteristics, trends and requirements of their operating plants and proposes remedial measures as indicated by research, experience and judgment.

Accident reports from all plants, together with the staff's analysis and comments, are published in the monthly Accident Round Table for discussion and action by plant leaders and safety committees. Basic information on accident prevention technology is imparted to operating personnel not only in the comments on individual accident cases but also in messages in the cover pages of the Round Table bulletin and in the list of specific discussion topics suggested for plant safety meetings which is a feature of each issue.

Periodically, circular letters are addressed to general operating, personnel and plant heads and safety officers which transmit timely information about accident trends and practical suggestions for prevention. Knowledge of the predominant types of accidents that are occurring and of their locations and causes is of great importance to organizations whose characteristics are essentially the same.

Each year a series of regional safety conferences for company and plant leaders is held in strategically located cities throughout the country. In one-day sessions under the direction of an Accident Prevention Bureau representative, safety policies and practices are examined and plans perfected for improved plant safety work.

These meetings are augmented by visits of Bureau field engineers to individual plants requiring special help with their programs. Fieldmen make inspections for hazards to safety and health, investigate accidents, examine the plant safety program, make recommendations for improvement, and address safety meetings.