supervisors will give it their enthusiastic, consistent interest, and attention. In my opinion, we should endeavor to organize with respect to preventing accidents, in the same manner that we organize to increase production, improve quality, or solve any other problem of vital interest to the company.

"I wish that you would personally discuss with the various division managers their respective safety programs at the next managers' meeting. We must do everything within our power to reduce to a minimum injuries to ARMCO employees."

Without staff officers, a war-time commanding general would run into considerable difficulty. In industry, we have staff men who advise the general manager and works manager. These staff men handle engineering, combustion, efficiency, training, medical, employment, and safety. They are to the manager what the staff officer was to the general during the war.

Any company, regardless of its size, can authorize the installation of guards on machinery and equipment, the securing of posters and the posting of them on bulletin boards, and the purchase of eye protection and other protective equipment, making it available to its employees through the supply store. These things require little initiative and rarely produce he desired results. To secure the desired results in safety, the machines must be carefully studied for all hazards and the guards designed to eliminate the hazard.

Posters must be carefully selected so as to appeal to every type of employee. They must be posted where all can see and read. The method and style of posting must be neat and attractive to the eye. The selection of eye protection must be made on the basis of the type of hazard to which the employee is exposed, and the fitting requires a technique that cannot be left to the judgment of the employee or a supervisor. The same is true of protective clothing and numerous other items that assist in the prevention of accidents.

To do these things requires the services of a highly trained individual, one who has, through mistakes, experienced and learned that the safe way of doing a job is the right way. This man is the safety engineer. He is the man who is summoned by every supervisor in the plant when he is in trouble. He is the man who keeps the engineering department on its toes. He is the man who is in a position to tell the management why production is off in a department, because he checks every department and sees first-hand how the department is being managed. He is the man who demands and gets recognition for the individual, the group, and the supervisor who does a good job on safety. He is the man who has the confidence of top management and of the lowest paid employee. Where should this man fit in management? It is of little importance because he is a recognized part of management, and should be advanced to a higher and trusted position as many of his predecessors have, he will carefully scrutinize the qualifications of his successor, because he knows that safety is a very important factor in the personal relations program of his company.

Recently, a discussion took place between the general superintendent of a mining operation and the safety engineer. The discussion had to do with the placing of responsibility following a serious accident. The general superintendent was arguing strongly in favor of placing the responsibility on the injured employee and the safety engineer was insistent that the responsibility be placed on the injured man's supervisor or foreman.

As Staff Supervisor of Safety for the company, I wrote the following statement which I believe answers the question: "Where does the safety engineer fit into management?" The safety of employees at all operations is the responsibility of management and management is supervision. The accident-prevention program of an operation is based on the recommendations of the safety department, which serves management in an advisory capacity.

In no way can the safety department order or enforce disciplinary action on an employee who violates a rule or engages in an unsafe practice. That is the responsibility of management.

The safety department should and will share the responsibility when an accident occurs, which through over-sight they have failed to anticipate, and recommend the necessary preventive measures.

Not so long ago, our executive vice president in an address to a joint group of supervisors and workmen made this statement: "Every month a number of appropriations are requested by various plants for the purpose of providing safer working conditions. Never to my knowledge has any appropriation been denied when investigation showed it to be desirable and helpful. Its cost is not a matter of thousands or hundreds of thousands of dollars. During the past several years, the safety program in all ARMCO plants has run into the millions. Yet we regard these expenditures as a good investment, for safety and production, quality and costs, go hand in hand.

I shall let you be the judge as to whether Management has lived up to its responsibility, but I make you this guarantee: If there is any job in any ARMCO plant on which it is inevitable that a man will be seriously injured for the lack of some safeguard or some necessary piece of equipment which the company has not seen fit to provide, then work on that job will be halted until the safe equipment is provided, or a safe practice worked out. Production is important to all of us, but human life comes first at ARMCO.

Active Management Participation in Safety

By WILLIAM S. SMITH

Safety Director, Ford Motor Company

How to get ACTIVE MANAGEMENT PARTICIPATION IN SAFETY is easy to put on paper, but it is another thing to convert it into action. At this point I would like to give you one warning. Avoid as you would a deadly disease what I call "Paper Safety." Charts, reports, rules and specifications are literally useless unless they are vitalized into action, and more important still, they must be applied in a practical manner in the shop.

To achieve real management participation it is vital that we cultivate the interest of the plant manager and his staff. In visiting various places outside the Ford Motor Company I have been very surprised to hear safety engineers say, "Well, that's all right, but I don't have the authority." The question of getting authority lies squarely on the shoulders of the safety director. Experience proves conclusively that nobody is going to hand it out in the form of a present. It has to be planned, cultivated and achieved by the safety engineer. Let me now give you a few ideas on how this can be accomplished:

1. The safety program must be practical. Production managers today are shop-trained men, and nothing will appeal to them more than safety ideas which they can see working in a practical manner on the job.
2. In discussing safety engineering proposals, make it very clear that you are vitally interested in saving money as well as preventing accidents. It is sometimes amazing how quickly a manager will participate when he sees that you have not only studied the best safety device, but that you have also looked into the cost and present the most economical plan.
3. Show if possible that your proposal will increase production, will not interfere with production, or if it does interfere that the compensation cost as a result of a serious accident makes the installation of the safety device worthwhile.
4. Do everything possible to make dangerous machinery and dangerous layouts safe instead of just flatly saying that it cannot be done. To cultivate management participation a safety department must be progressive. It is our job to make new ideas in production safe. At the same time, have the courage to reject anything when it should be rejected.
5. Prevail upon the manager to go out and see the job whether it be a case of an accident or a new engineering layout.
6. It is essential that you get full control where the safety factor is concerned. This means control in purchasing, engineering design, research, plant lay-out, plant engineering, general production, chemical engineering and any other division where important decisions are made on safety