Aspects of Security Protection for Business and Industry

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The author is Security Manager, Sears, Roebuck & Co., Los Angeles and an instructor in Industrial Plant Protection and Policing, University of Southern California. He is a member of the Berkeley Police Department. Mr. Gocke has seen service in the Office of Military Government for Germany and is the author of Practical Plant Protection and Policing (1957)—Editor.

WHY PROTECTION?

For the best interests of an industry or business not only should the manager protect his investment by insuring against fire, lightning, windstorm, etc., but he should also take active measures in his daily operations to secure the business against internal losses from theft, accidents, compromise of trade secrets or governmental classified material, etc.

The problem should be approached with an inquiring mind. What are the various factors involved in the security of this plant. Is theft a major consideration? Is the safety of personnel, customers, or visitors important? The security of secret documents and materials? The control of traffic? Handling of visitors and vendors? Enforcement of company rules and regulations? If so, these and many other questions should be studied carefully for their application to the particular business.

The same type of inquiring mind should be used to advantage in examining the various possibilities in connection with each of the problems mentioned above. For instance, if theft of merchandise, materials, or money is a problem, how far is management willing to extend itself in order to control the situation? How great and how consistent are the losses? Is the problem partially one of closer inventory control and better accounting methods? Are visitors, customers, and employees equally responsible, or is one group more accountable than the others for the existing situation? Will uniformed guards help to solve the problem or will it require discreet or secret investigators in order to learn who the ringleaders are?

WARTIME PROTECTION

The protective measures for a particular plant or business will depend to a large extent upon whether the country is at war or is engaged in building up its defenses; and if so, whether or not the particular plant is engaged in production for the federal government (either directly or indirectly) and whether or not classified materials are being used or produced.

Wartime controls usually mean that manpower and materials are in short supply. Consequently, both must be used to the greatest advantage. The federal government must necessarily control the amount of manpower used to protect the various plants engaged in defense production. Those plants with the highest relative criticality
and vulnerability\textsuperscript{1} are given priority in manpower and equipment necessary for their protection against the efforts of those who would hinder production by sabotage, espionage, thefts, slowdowns, or work stoppages.

**Peacetime Protection**

There are several factors which will determine the extent to which a plant should be protected against thefts, accidents, trespassers, fire, other disaster, and compromise of trade secrets:

1. **Size and location of plant** (general surroundings—whether urban or rural, typography, natural barriers, etc.)
2. **Number and general character of personnel** (whether common laborers, skilled craftsmen, clerical, scientific, or professional, as well as the nationality and background traits.)
3. **Character of products** (the size, value, and desirability of the product, as well as its flammable qualities.)
4. **Cost of security protection** (as contrasted to the savings to be effected.)

**Size and Location of Plant.** A large plant will have greater need for specialization—in the field of security as well as other fields. It may cover many acres of buildings and grounds, all requiring security controls of one kind or another. If it is located in a city, it will undoubtedly have need for fences or walls to surround the property as a protection against trespassers. Plants located in the country or in relatively inaccessible places may sometimes make use of natural barriers such as rivers, lakes, cliffs, etc., to help in establishing the boundary line on one or more sides.

**Number and Character of Personnel.** A plant employing large numbers of people will, of necessity, have some organization established for general security, fire protection, and first-aid. It is impossible to bring together large numbers of people without inheriting the problems that accompany congestion—without establishing regulatory controls and the necessity for handling those who violate company rules and regulations.

Factories and businesses generally draw on the surrounding population for their personnel. If these people are generally peaceful and law-abiding by nature, less stress will have to be placed on the security aspects of personnel control. There will be fewer thefts, a lesser number of violations of the plant rules and regulations, and less probability of fire or accidents because such personnel are more inclined to obey the safety instructions given them.

**Kind of Product.** The incidence of theft will undoubtedly be lower in heavy indus-

\textsuperscript{1} Criticality here means the critical nature of vital importance of the plant and its products in winning the war. This may be because it is an important link in a chain or production upon which hinges the successful manufacture of the final product, or because the rare skill and knowledge of the workmen and scientists employed could not be duplicated without harmful delay and major effort. The vulnerability of the plant is its susceptibility to penetration by foreign agents or local crackpots for the purpose of espionage, sabotage, theft, or various types of work slowdowns or stoppages. A plant may be highly critical but not vulnerable, or it may be vulnerable but not critical. The degree of protection to be provided is determined by the relationship of the relative criticality and the relative vulnerability.
trial plants such as steel mills, cement plants, etc., where the product itself is not particularly desirable and where adequate controls can be set up to safeguard company owned tools and other property. The greatest possibility for theft on the other hand, is in retail merchandising stores and warehouses, factories manufacturing valuable and desirable articles, etc.

If the materials or products of the plant are small, valuable, and desirable, there will be a strong temptation for theft and consequently a greater need for security controls. It is reasonable to assume that a dishonest person will be more tempted to steal valuable items that are small and readily concealed rather than large, bulky articles with which he would be more easily discovered.

The flammable qualities of the product or materials used also influences the need for protection. Gasoline cracking plants and other similar industries where highly flammable liquids or gases are handled have unique problems in the control of fires. Such plants need highly trained fire squads or fire departments and rigid enforcement of fire regulations by fire prevention inspectors, guards, and others.

Cost of Security Protection. Obviously, it is not economical to spend thousands of dollars on plant security when the return on the investment is only a fraction of that amount. The theoretical or ultimate point at which greater expenditure for security should cease is that point beyond which diminishing returns is a factor. In other words, it is not profitable to extend protective measures beyond that point where each dollar spent on security will fail to give a dollar's worth of added protection. This point is, indeed theoretical, for there is no known method for discovering that exact place at which any given plant should stop spending more money for security protection. There are several practical considerations, however, which will serve as criteria for determining when that point is being approached.²

One such criterion is that provided by insurance companies. If the plant is not adequately protected for fire hazards, fire insurance rates will be higher than normal. A greater expenditure by management for fire protection will reduce the fire hazard and lower the insurance rates on the property.

Another criterion is that offered by evidence of thefts of company property. If sample reports show that thousands of dollars worth of tools and other company property is being stolen regularly, it may pay management to spend more money for plant guards or other means of controlling the situation.

Still additional evidence of inadequate plant security is that offered by the statistics on plant injuries and accidents. If the volume of injuries and the expenditure for employee disabilities is high, an investigation may disclose that money spent on ordinary safeguards and plant safety education will be more than returned through increased production, lower injury costs, and higher employee morale.

CONTROLLING ACCESS TO PLANT PREMISES

Large plants employing thousands of people must often use not only physical means such as fences, walls, gates, and other barriers, but plant guards must be employed to screen all persons entering the gates to determine their right to be on

the premises. The extent to which this personal inspection and screening is required
depends upon the criticality of plants engaged in defense work and the degree of
security that is considered necessary in order to prevent unauthorized persons from
attempting to steal, damage, or otherwise interrupt or compromise the production
processes.

The device usually employed in order to allow regular employees to enter the
premises without undue delay is an authorized pass or badge bearing the wearer’s
name, photo, employment number, thumb print, plant official’s signature, and other
identifying data. Visitors, vendors, contractors, and others desiring to enter the plant
on business must first adequately identify themselves to the gate guard before they
are given a temporary pass or badge allowing them to enter the designated area for
the purpose and time stated.

Regular passes or badges must be constructed of relatively indestructable ma-
terial of tamper-proof design which is fireproof, waterproof, and resistant to chemicals,
abuse, and hard wear. Two pocket-size transparent plastic sheets, enclosing the
photograph and other data, when heated and laminated together will usually answer
the above test. In addition, the paper upon which the pass is printed should have a
distinctive and intricate background design which is difficult to copy or reproduce.
Other requirements may be added depending upon the relative degree of security
demanded.

CONTROL OF THEFT

Estimates of annual losses directly attributable to theft from businesses in the
United States range from 500 million dollars on up. Of particular importance in this
connection is internal theft, or that which is due to the activities of the employees
themselves. Why is this so, and what can be done to correct the situation?

First of all, more thefts will take place when there are more opportunities to steal
and when the articles are desirable and easily concealed and carried away on the
person. Naturally, the most effective means of reducing such thefts is to eliminate or
reduce the number of opportunities for theft. Second, the employees must be properly
indoctrinated in their moral responsibilities to the company and to the community.
The proper attitude and spirit must emanate from management so as to filter down
to all employees through foremen and other supervisors. By their actions and their
attitude plant supervisors can erect a strong feeling of regard for company property
and respect for its proper treatment.

Supervisors who are alert and are concerned with doing a good job actually perform
a certain amount of crime prevention by the very fact that they are doing their job
creditably. Theft more often occurs when methods are loose and supervision is lax.

Other controls must also be maintained, such as careful screening of new employees
so as to eliminate obvious misfits and those with questionable previous records;
close checks by plant guards of all personal packages and tools entering and leaving
the premises; tighter inventory and auditing procedures; close inspection of trash,
scrap, and salvage disposal methods; adequate lock and key controls; and the en-

couragement of prompt reporting of all missing tools, materials, or merchandise and of suspicious circumstances in connection therewith.

Prompt and efficient security personnel will also do much toward the reduction of internal theft. Employees are more apt to obey the plant rules and regulations when they are uniformly and impartially enforced rather than when an occasional "example" is made of an employee who is out of line.

THE PROBLEM OF PLANT SAFETY

The yearly average of industrial casualties between 1946 and 1952, inclusive, was 17,529 killed or totally disabled for life, 86,243 partially disabled for life and 1,911,900 temporarily disabled—a yearly total of 2,015,557 injuries and deaths. The cost of this accident toll runs into several billions of dollars annually, including lost wages, medical expense, insurance costs, etc.¹

One can see that company profits suffer tremendously through a bad employee safety record, and that on the other hand the elimination of accidents and injuries means a direct increase in profit dollars. Fewer injuries on the job also means less suffering and hardship. This in turn, makes for higher morale, greater production, and still higher business profits. It is a factor that management cannot afford to overlook.

Injuries received by industrial workers may usually be classified as having been caused by one of the following conditions:²

a. Improper or inadequate instructions for new and untrained employees (lack of knowledge or ability).
b. Congestion of working conditions and relaxing of safety rules due to increased output (unsafe working conditions).
c. Deliberate short-circuiting of safety rules due to laziness or horseplay on the part of the employees (unsafe acts).
d. Too much stress placed on hurrying a job to completion (too much pressure by management).
e. Unsafe tools, equipment, or materials, or improper application of working methods (unsafe mechanical or physical condition).
f. Improper or inadequate illumination, ventilation, etc. (indirect causes).

The great majority of injuries occur because employees violate common safety rules or assume unwarranted personal risks in their daily exposure to mechanical or physical hazards. Accordingly, accident prevention is designed to eliminate or reduce employee exposure to accidental injuries through education and by scientific use of physical safeguards on machinery, equipment, moving belts, etc.

The installation of mechanical safeguards, although necessary and important, can affect a reduction in the rate of personal injuries, however, only when it is a part of a constant campaign aimed at inspiring the individual to guard his own personal safety. In any safety program aggressive efforts must be made to devise practical methods of creating safe working habits on the part of employees and a positive will to abide by established safety procedures.

Fire Prevention Measures

Even though an industrial plant is insured against fire loss, a fire can be very costly in terms of lost production, loss of employee jobs, and loss of customer goodwill through failure or delay in the shipment of goods.

Industrial fire losses in the United States approximate one billion dollars a year, thus making loss through fire a major consideration of every business.

Regardless of the size of the plant, there should be an organization for fire prevention and for fire fighting. Certain basic fire prevention measures should be established in order to eliminate as far as possible the danger of fire. If, however, a fire does start, an efficient, well equipped fire fighting organization should be on hand to combat the blaze, at least until the arrival of the public fire department.

A plant fire brigade composed of a few selected, properly trained employees should be available at all times during plant operations to act immediately without panic in the event of a fire. Regular monthly training drills are usually recommended in order to keep these squads alert and active.

If the plant has no full-time fire prevention inspectors, regular employees should be appointed to assume these duties. They will supplement the activities of the insurance underwriters and the city and state inspectors. Such personnel, with the backing of management behind them and with a close working knowledge of the plant, are in a position to do a good day-by-day job of enforcing simple fire prevention measures and of effecting general good housekeeping throughout the premises.

Conclusions

There are many other problems concerned with plant security which demand careful time-consuming thought. The purpose here has been accomplished, however, if most business men realize that much of their profit may be lost through theft, injury, accidents, fires, and other causes that are subject to controls, when the proper methods are applied. It is time for industry to realize that only by a plant security program of constant improvement and increased efficiency can the effort show returns of the highest order in terms of greater production, higher morale, better quality, and lower losses.

Statistics furnished by the National Board of Fire Underwriters include both the United States and Canada, however, the majority of these fire losses occurred in the United States.