

7—Accident Investigation, Analysis, and Costs

where outdated methods or procedures which overtax the physical capacities of the workers can be avoided, for example by using mechanical handling methods

- 5 Disclose the unsafe practices which necessitate training of employees
- 6 Disclose improper placement of personnel in instances in which disabilities or physical handicaps contribute to accidents
7. Enable supervisors to use the time available for safety work to the greatest advantage by providing them with information about the principal hazards and unsafe practices in their departments
- 8 Permit an objective evaluation of the progress of a safety program by noting in continuing analyses the effect of counter measures, educational techniques, and other methods adopted to prevent injuries

The key facts in accidents

As explained in ANSI Z16 2, *Method of Recording Basic Facts Relating to Nature and Occurrence of Work Injuries*, the purpose of the Standard is to identify certain key facts about each injury and the accident that produced it and to record those facts in a form which will permit summarization to show general patterns of injury and accident occurrence in as great analytical detail as possible. These patterns are intended to serve as guides to the areas, conditions, and circumstances to which accident prevention efforts most profitably may be directed.

For a complete recording of an injury case, one item for each key fact should be selected from the injury report. Whether or not all the key facts are present in a case will be determined by the circumstances of the case. The items should be selected according to the following definitions:

- 1 Nature of injury—the type of physical injury incurred.
- 2 Part of body—the part of the injured person's body directly affected by the injury
- 3 Source of injury—the object, substance, exposure, or bodily motion which directly produced or inflicted the injury
- 4 Accident type—the event which directly

resulted in the injury

- 5 Hazardous condition—the physical condition or circumstance which permitted or occasioned the occurrence of the accident type
- 6 Agency of accident—the object, substance, or part of the premises in which the hazardous condition existed
- 7 Agency of accident part—the specific part of the agency of accident that was hazardous
- 8 Unsafe act—the violation of a commonly accepted safe procedure which directly permitted or occasioned the occurrence of the accident event

Supplementary items of information closely related to the key facts, such as age, sex, occupation, and type of work being performed at the time the injury was incurred, are recorded and included in an analysis so that all the facts will be available for taking the proper preventive steps. Contributory factors should be indicated.

The principal source of information for an analysis is the supervisor's accident report (Fig. 6-2 in the previous Chapter). Complete data regarding all the key facts should be fully and accurately recorded on this form at the time of the accident.

Injury and accident reports, however, commonly consist of a few specific statements relating to the injury plus a narrative account of how and why the accident occurred. The reports vary widely in the amount of detail given and in the clarity and coherence with which the facts are presented. Therefore, the analyst rarely will find the key facts—the items needed for statistical recording—precisely stated. Usually, he must review all the data given in the report, select pertinent items, and fit them into a predetermined recording pattern.

Identifying the key facts

Since the reliability of an analysis depends greatly on selection of the correct key facts, the analyst must have a clear understanding of the key facts and of the method for identifying them. The bases on which identifications should be made are described and il-