

During the same six-month period, his duties at PPC were badly neglected. Measurement of individual and group safety performance had come to a standstill. The same was true of inspection, correction, investigation, and reporting.

It was during this time of neglect that the increased incidence of accidents occurred. Safety precautions that Bond had instituted were no longer observed properly once the workers realized that he had stopped observing and correcting them. Measurement and inspection might also have prevented the injuries if Bond had maintained his normal schedule of these activities.

PPC's consultant, in a confidential report to executive managers, cited the *accident/incident theory* in explaining his view of why the injuries occurred. In this report, the consultant said that Bond was guilty of applying "it won't happen here" logic when he made a conscious decision to neglect his duties at PPC in favor of his duties with the professional organization. Of course, the employees themselves were guilty of not following clearly established procedures. However, since Bond's neglect was also a major contributing factor, PPC decided to settle out of court.

EPIDEMIOLOGICAL THEORY OF ACCIDENT CAUSATION

Traditionally, safety theories and programs have focused on accidents and the resulting injuries. However, the current trend is toward a broader perspective that also encompasses the issue of **industrial hygiene**, which concerns environ-

mental factors that can lead to sickness, disease, or other forms of impaired health.

This trend has, in turn, led to the development of an epidemiological theory of accident causation. Epidemiology is the study of **causal relationships** between environmental factors and disease. The epidemiological theory holds that the models used for studying and determining these relationships can also be used to study causal relationships between environmental factors and accidents or diseases.⁹

Figure 3-4 illustrates the epidemiological theory of accident causation. The key components are **predispositional characteristics** and **situational characteristics**. These characteristics, taken together, can either result in or prevent conditions that may result in an accident. For example, if an employee who is particularly susceptible to peer pressure (predisposition characteristic) is pressured by his co-workers (situational characteristic) to speed up his work, the result will be an increased probability of an accident.

Epidemiological Theory in Practice

Jane Andrews was the newest member of the loading unit for Construction Products, Inc., (CPI). She and the other members of her unit were responsible for loading 50 trucks every morning. It was physically demanding work, and she was the first woman ever selected by CPI to work in the loading unit. Andrews had gotten the job as part of the company's upward mobility program. She was excited about her new position because, within CPI, the loading unit was considered a springboard to advancement. Consequently, she was anxious

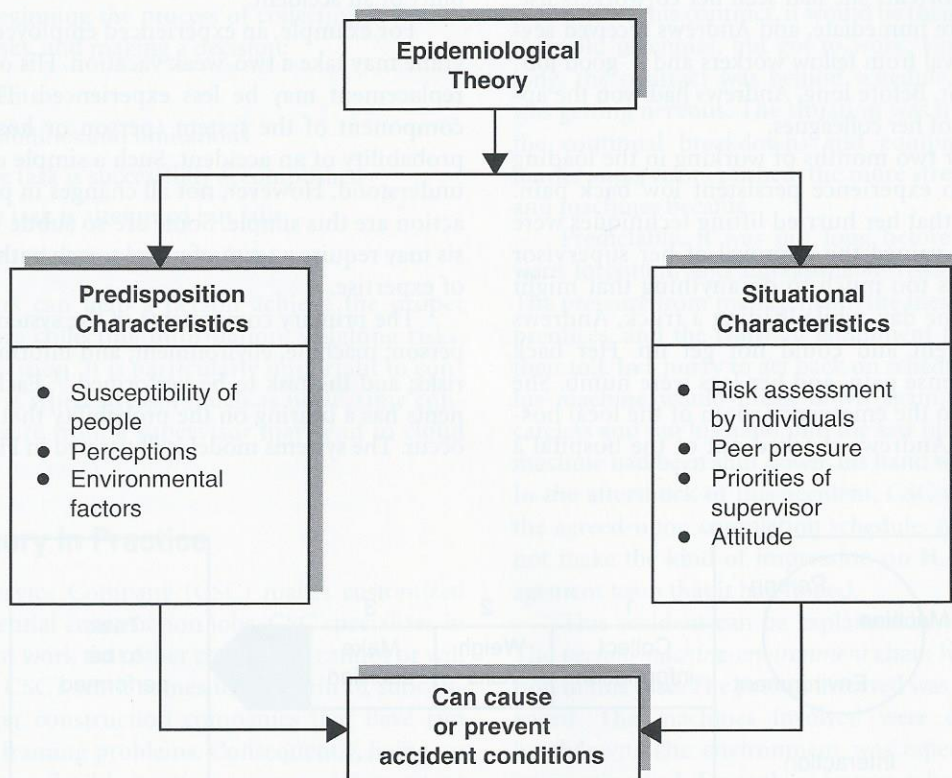


FIGURE 3-4 Epidemiological theory.