

CHAPTER 18

MANAGEMENT OF PEOPLE

This chapter addresses the role people might perform in a performance design. Many times, hazardous materials facilities depend on the building occupants and users to perform certain tasks to avoid and mitigate emergencies. These activities are considered integral to the success of such facilities. Other examples include restrictions on the types of appliances allowed in the lunchroom or the number of staff available for certain types of events such as sporting events. This section outlines not only the more traditional prevention and protection skills that the existing prescriptive codes require but also requires that where the actions or practices of people become a component of a design, they must be maintained.

Functional statements in Sections 1801.2.1 and 1801.2.2 indicate to the code user that this chapter should be used in conjunction with Chapter 3 to establish the required design performance level. Performance requirements in Sections 1801.3.1 through 1801.3.9 list specific criteria that must be addressed after determining the magnitude of design events and while completing the hazard analysis to assure that the appropriate level of performance and protection is achieved.

The overall objective as well as each of the specific performance requirements refers to “people,” “occupants,” or “staff.” The purpose is to clearly separate the performance of people from the performance of building features or systems. The concept that this is more than an education and training issue but is critical to the system reliability was felt to be important. As an example, the actions of people as opposed to the redundancy of systems may be used as a method to provide reliability. Or, the availability of a highly trained on-site emergency response unit (plant fire or hazmat brigade) rather than built-in systems or other process features may be used as a design or solution alternative. In either case, the actions of people become a component of the design or solution and are as important to the overall outcome as the more traditional built-in features of the design, process, or solution. This particular document does not intend to promote designs utilizing people as a design solution in the place of systems such as sprinklers, but it does emphasize that the role people play in preventing and managing emergencies should not be ignored.

Designs based on this code may depend on the actions of people much more than designs based on the prescriptive codes in the past. The prescriptive code has traditionally required that some occupants and staff receive training and/or drills (students in schools or staff in nursing homes). Very rarely has the fire code required that occupants or staff be relied on for critical functions (with some exceptions for hazardous materials). Because the actions of people are an important safety function, specific requirements for education both to promote safe practices and actions and to develop specific procedures and training are found within the performance requirements.

Because occupants, staff, equipment, materials, and processes can change, it was felt that requiring the establishment of some administrative controls in order to maintain consistency in the level of knowledge was important. The loss of personnel can change the overall competency of the staff to react to and prepare for emergencies, especially if the personnel lost served in a leadership role in such activities. A change in the products that are stored or the introduction of a new technology into an existing process can also impact the original design or solution. The administrative controls are meant to require ongoing evaluation and validation so that the original assumptions remain valid. They are also meant to require appropriate education and training whenever new people or other original assumptions change.

The action or the inaction of people can be as key to the design or performance solution as any built-in system or feature.

The extent of the actions of building or facility occupants or users will depend on the design chosen. More emphasis may be placed on an automatic system, for example, to lesser dependence on the actions of a building or facility occupant.

