Chapter 17: Exterior workplace lighting

17.1 Functions of lighting in exterior workplaces

Exterior workplaces occur in many different forms. There are those that involve the movement of people, such as airports; those that involve the storage and movement of goods, such as container terminals; those that involve the operation of large plant, such as an oil refinery; and those that exist temporarily as happens during the construction of a building.

Regardless of the purpose of the site, the lighting systems of exterior workplaces have common aims. In all exterior workplaces, the lighting is designed to ensure the safety of people working on the site and to enable the work to be done quickly and easily, without discomfort.

17.2 Factors to be considered

When designing lighting for exterior workplaces, there are a number of factors that need to be considered.

17.2.1 Scale

The scale of the equipment to be used on the site is important in determining the lighting approach. Some industries, such as the chemical industry, have plant that is large and complex so there is no possibility of separating the lighting from the plant. As a result, the lighting has to be integrated into the plant (Figure 17.1).

Figure 17.1 Lighting of a chemical complex

Others are large and simple and can be lit by simple area floodlighting. Yet others are small and have a limited number of lines of sight, e.g. loading bays.

17.2.2 Nature of work

The nature of the work in exterior workplaces can vary widely. All exterior workplaces require lighting for safe movement but beyond that the need for fine visual discrimination and where it is needed is uncertain and may vary from day to day. In these circumstances, consideration should be given to using localised lighting where fine visual discrimination is always needed and mobile lighting for places where fine visual discrimination may be needed in different locations at different times. Some lighting will also be required where working at night exposes the workers to danger (Figure 17.2).