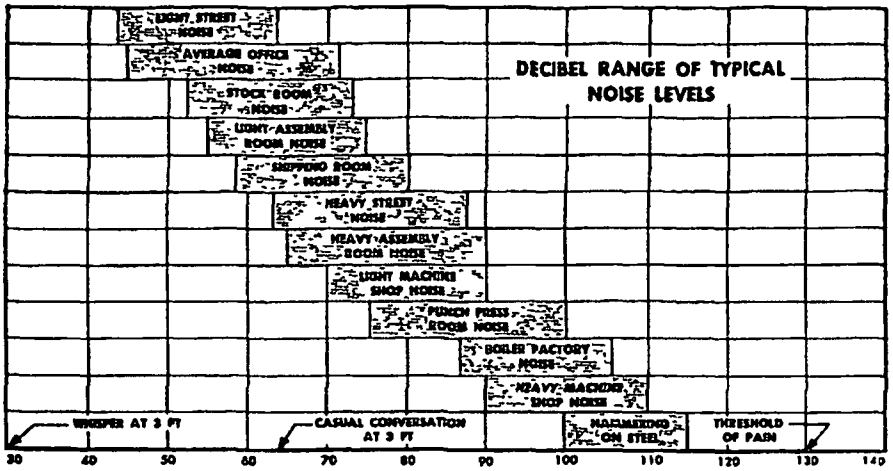


Fig. 35-5. Decibel range of typical industrial noise levels shown on left chart can be compared with decibel ratings of typical industrial signals (shown on the right chart) In

sirens may be heard up to 3 miles, are audible above almost any surrounding noise, and are especially effective in outdoor locations

- *Bells,* the most versatile of industrial signals, come in a broad selection of sizes and tonal ranges. Larger models can be used for fire alarms, as well as burglar alarms

- *Buzzers* find application in signaling and alarm systems of public buildings, hospitals, offices, and other locations where a more startling signal would be out of place.

- *Chimes* should be specified for locations where a low noise level is required, such as offices, banks, or hospitals

A signal *system* results when a number of signals are combined to perform a specific group of tasks When a signal system is being considered, there are four major questions which should be asked to aid in the selection of the proper signal for each application within the system

1 Where is the signal to be used? Signal location is very important and each signal should be chosen to command attention, yet not be so loud it will be offensive

2. What noise level must be overcome? Noise levels vary greatly (indicated in Fig 35-5, left), as does decibel range of industrial signals (Fig 35-5, right)

3 What type of noise will be encountered? The type of noise to be overcome is just as important a consideration as the noise level In a power plant, for example, the tone of a horn or siren may blend with the hum of generators and become inaudible Here a bell would be more desirable, even though it might have a lower loudness rating

For outdoor signals, remember that there are no walls, floors, or ceilings to bounce sound, and that various structures can cause acoustic shadows which distort or misdirect sound and thereby cause signals to be ineffective Large open areas are difficult to service properly Here, several signals should be equally spaced throughout the area

Prerecorded messages and telephone alerting systems Companies with public address systems should consider prerecording the employee emergency notification and instruction messages This would ensure that the message would be given in a clear, calm, and concise manner Since the instructions will vary for different types of emergencies,