



## **UNDERSTANDING BUILDING SERVICES**

5-Day Training program

### **INTRODUCTION**

Many premises and facilities managers, without an engineering or technical background are being given the added responsibility of the operation and maintenance of building engineering services. Often, these managers are unclear what building services are, or lack of full understanding of how they function.

This intensive 5-days course is designed to explain in a simple straightforward manner what building services are, why they are necessary and who they operate. The course format is informal and interactive to provide delegates with an opportunity to ask questions about their particular service problems.

The programme is intended to give a broad overview of building services, look at some of the problems and examine possible solutions. No prior knowledge of building services is assumed.

### **WORKSHOP OBJECTIVES**

#### **Attending this seminar will help you:**

- Appreciate how building design affects services
- Understand why services are necessary
- Comprehend how building services operate
- Understand problems arising from buildings services
- Identify cost issues in building and service design
- Clarify your responsibility for safety matters
- Understand the role of maintenance in service provision

### **PROGRAM**

#### **Day One**

##### **Building Design**

- New building type e.g. old, new, listed
- Height, shape, orientation and location
- Form of construction
- Services design
- Risers
- Lifts - traction, hydraulic, scissor lifts and hoists



### **Electrical supply & lighting**

- Supply and distribution
- Transformers, electrical intake and switchgear
- Distribution board
- Emergency supply
- Lighting type e.g. incandescent, fluorescent emergency
- Emergency
- Efficiency

### **Day Two**

#### **Water**

- Cold water
- Hot water

### **Heating, ventilation and air conditioning**

- Plant rooms and boilers
- Distribution and circulating pumps
- System design complexities
- Other methods e.g. electric, gas heaters
- Natural ventilation
- Air conditioning
- Air Handling units
- Cooling & chilled water
- Humidifiers
- Fans, noise and other issues

### **Day Three**

#### **ITC**

- Services to server rooms
- Computerized systems
- Block wiring
- Moves and changes
- Call logging



## **Day Four**

### **Maintenance**

- Design criteria and cost/implications
- Manuals and as-fitted drawings
- Maintenance type e.g. planned, reactive conditioned based
- Building management systems
- Troubleshooting

### **Legislation**

- Building/H&S regulation/IEE regulations
- Electricity at work regulations (including PPE, PAT)
- COSHH
- CDM
- Risk assessments
- Permits to work
- Fire

## **Day Five**

### **Risks**

- Asbestos
- Legionnaires disease
- Sick building syndrome
- Other e.g. flood, fire

### **Environmental issues**

- Energy management
- Electrical
- Water
- Waste management