

## **Core Professional Training (Vetting Criteria)**

### **Materials (Building) Discipline**

#### **Project Management**

- 1.1** Demonstrate experience in project management:
- (a) Understanding of management principles.
  - (b) Should have a supervisory or managerial role in a team or project.
  - (c) Experience of Multi-disciplinary team work.
  - (d) Logical approach to engineering tasks.
  - (e) Preparation of work programme.
  - (f) Supervision of subordinates
  - (g) Project progress monitoring (depends on size and scope of project).

#### **Specimen Preparation and Sampling**

- 1.2** Have practical experience in sampling and specimen preparation schemes.
- (a) Development of sampling strategy.
  - (b) Carrying out or supervision of sampling.
  - (c) Data interpretation.

#### **Building Materials Testing and Standards**

- 1.3** Understanding of testing to internationally recognized standards.
- (a) Knowledge of the application and limitations of National and International Standards, Codes of Practice, Technical Memoranda etc.
  - (b) Experience of conducting physical, mechanical and chemical testing or supervising and preparing such test regimes.
  - (c) Interpretation of test results to aid engineering design or solutions to engineering problems.

#### **Structural and Chemical Characterisation of Materials**

- 1.4** Show familiarity with methods for characterising the structure and composition of materials.

#### **Quality Standards and Assurance**

- 1.5** Understand the application of quality assurance and international standards, particularly ISO.
- (a) Be familiar with quality assurance systems.
  - (b) Know the principles of quality control to meet a specification.

- (c) Understand or have experience of equipment calibration procedures.

### **Measurement and Control Systems**

**1.6** Experience of two items of laboratory equipment:

- (a) Have experience of measuring and controlling process variables.
- (b) Have knowledge of the advantages and limitations of different measuring systems.

### **Engineering Practice**

**1.7** Understand engineering practice in building technology e.g. building construction and building materials sampling techniques.

### **Engineering Drawing**

**1.8** Be familiar with international and local standards for hand and computer aided drafting procedures.

- (a) Be able to read and interpret engineering drawings.
- (b) Be able to communicate using drawings.

### **Selection and Use of Materials and Methodology**

**1.9** The selection and use of building materials and construction/repair methodology:

- (a) Be familiar with building engineering materials and materials design.
- (b) Understand financial and environmental constraints relating to materials selection and usage.
- (c) Demonstrate personal experience of materials selection
- (d) Knowledge and experience in building construction/repair methodology.

### **Financial Awareness**

**1.10** Financial awareness, specifically:

- (a) Be familiar with the financial constraints within which companies operate.
- (b) Have knowledge of costing solutions to problems, buildings up cost-estimates and control of a project budget.
- (c) Understand the basic forms of contract and show an appreciation of insurance, procurement procedures, tender document preparation and evaluation and commercial terms.

### **Plan and Execute Projects**

**1.11 Knowledge and experience in planning and execution of projects:**

- (a) Knowledge to plan, programme and control work within a project to meet budget and time constraints.
- (b) Experience in progress monitoring and reporting.
- (c) Knowledge and awareness of project planning.

**Safety**

**1.12 Knowledge and experience in work safety :**

- (a) Experience in having a critical approach to safety matters in the implementation process and in observance of safe work practices.
- (b) Knowledge in responsibilities relating to safety
- (c) Familiar with legislation relating to work safety.

**Inspection of Building Material Application and Workmanship**

**1.13 Knowledge and experience in carrying out site inspection of building material application and quality of workmanship.**