

Man05

Aftercare

Objective:

“To encourage aftercare support during the first year of the building operation, to ensure the building operates in accordance with the design intent and in response to the building occupants’ needs.”

Content:

The issue is split into three parts:

- i. Aftercare support
- ii. Commissioning
- iii. Post-occupancy evaluation

Actions:

- i. Plan and document the aftercare support to be provided.
- ii. Plan and document the operational commissioning activities.
- iii. Set aside funds for an independent third-party Post Occupancy Evaluation (POE) 1-year after occupation.

i. Aftercare support

Aftercare support must be provided to the building occupants for **the first year after occupation** (NOTE: this may extend beyond the first year after completion/‘handover’). There must be a **clear plan, with resources and documented procedures** for building occupants to follow to gain aftercare support. The BRE refers to these as ‘operational infrastructure and resources’ and requires them to include the following as a **minimum**:

1. A meeting between the aftercare support team or individual, and the building occupier or management team (prior to initial occupation, or as soon as possible thereafter). This must cover:
 - a. Introduce the aftercare support available, including the content of the building user guides and training schedule.
 - b. Present key information about features of the building including the design intent and how to use the building to ensure it operates as efficiently and effectively as possible.
2. On-site facilities management training including:
 - a. A walkabout of the building
 - b. Introduction to and familiarisation with the building systems, their controls and how operate them in accordance with the building design intent and operational demands.
 - c. Provide initial aftercare support for at least the first month of building occupation, e.g. weekly attendance on-site, to support building users and management (the level of frequency will depend on the complexity of the building and building operations).

Note: This document is intended as guidance only. Consult your BREEAM AP or Assessor to ensure compliance is achieved.

- d. Provide longer term aftercare support for occupiers for at least the first year from occupation, e.g. a helpline, nominated individual or other appropriate system to support building users and management.

The second requirement is to ensure that **energy and water consumption data** is monitored for a period of 1-year from the point when the building is **mostly occupied** (NOTE: again, this may not be within the 1-year period from completion/'handover'). The facilities management team should analyse the monitoring results against the predicted operational performance to determine whether performance can be optimised.

ii. Operational commissioning

BREEAM requires the following commissioning activities to be carried out over a 1-year period, from the time when the building is '**substantially occupied**'. Again, this may be some months after the initial completion/'handover' of the building.

Complex systems

1. Identify any changes made by the owner/operators which may have impacted the performance of the system
2. Test all building services under full and part loads (full load in the winter (heating) and summer (cooling), and part load in the spring/autumn (both)).
3. Where applicable, carry out testing during periods of extreme (high or low) occupancy.
4. Interview building occupants to identify problems or concerns regarding the effectiveness of systems.
5. Produce monthly reports comparing sub-metered energy performance to the predicted.
6. Identify inefficiencies and areas in need of improvement.
7. Re-commission systems and incorporate any revisions in operating procedures into the operations and maintenance manual and building user guides.

Simple systems

Simple systems are relevant to naturally ventilated buildings. These commissioning procedures can be carried out by the external consultant, the aftercare team or the facilities manager.

1. Review the levels of thermal comfort, ventilation and lighting experienced by the building users, at **3, 6 and 9-month intervals** after occupation.
2. Identify deficiencies and areas in need of improvement.
3. Re-commission systems and incorporate any revisions in operating procedures into the operations and maintenance manual and building user guides.

iii. Post occupancy evaluation (POE)

A POE should be carried out (undertaken by an **independent third party**) to establish the performance gap of the building. This compares the actual in-use performance of the building against the theoretical performance modelled during the design of the building. The aim is to highlight any improvements or interventions that could be made to improve the operation performance of the building.

The POE must cover:

1. A review of the design intent and construction processes.
2. Feedback from a wide range of building users, including the facilities management, and cover:
 - a. Internal environmental conditions (light, noise, temperature, air quality)
 - b. Ease of control, operation and maintenance
 - c. Facilities and amenities

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- d. Access and layout
 - e. Energy and water consumption
 - f. Other relevant issues (e.g. health, safety and wellbeing; building user information including training for users and operators; value for money – achievement of business objectives; sector-specific issues such as impacts on absenteeism in offices, infection rates in healthcare facilities, pupil performance in schools, etc.; sustainability performance (e.g. materials performance, renewable energy, rainwater harvesting systems, etc.).
3. The independent third party must provide a report, including 'lessons learned', to the building owner and occupiers.
 4. The client or building occupier commits funds to pay for the POE **in advance**.

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