

Note: while based on a real office, the names and locations used in this example are fictional and any resemblance to actual locations, people or firms is unintentional

Building log book for small businesses

For spaces less than about 200 m² floor area (roughly 10–15 occupants)

No. 3 Wilson House

Matalan Drive

Tipton

Lancashire

LA6 7PY

01211 567890

Tenant: Geller & Son Ltd.

Landlord: Chandler Bros. Ltd.

01987 345567

Facilities manager responsible for log-book:

R Geller

Signed: *R Geller*

*121 Park View
Tipton, LA6 4RT
01211 654321*

This building log book was prepared by:

*Phil Harris
PH Consultants
12 Balfour House
Lynne Road
York, YO26 7AP
01904 873428*

Please ensure that this log book is kept up-to-date and in a readily accessible (designated) position. It contains important information for anyone carrying out work on the building and its services.

This log book is to be kept at all times in: *RG's office, main filing cabinet, top drawer*

Electronic master is kept at:

RG's PC; C:\log book\master\version 1.doc

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Purpose and responsibilities

This log book is an easily accessible focal-point of current information for all those working in the building. The log book is recognised as a means for compliance with Building Regulations Part L2. It acts as:

- a summary of the space and its systems
- a single reference point for information
- a helpful source of information and training for new staff and contractors
- a place to log changes to the space and its systems
- a place to log maintenance and energy performance

Further guidance on using building log books is given in Good Practice Guide GPG 348: *Building log books — a user's guide*, which is included on the CD-ROM that accompanies TM31; copies are also available from the Carbon Trust (www.thecarbontrust.co.uk)

Key responsibilities of facilities manager

- to ensure that the log book is correct and up to date at handover and when passing it on to a successor
- to ensure that the log book is kept up to date on an ongoing basis including any changes to the building/space fabric, services, operation or management
- to ensure that building energy performance and major changes are logged
- to ensure that all those working in the building/space are made aware of the information contained in the log book
- to ensure that the log book is kept in its designated location at all times.

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For further information about building log books, including the CIBSE Guidance on the use of the template, contact CIBSE. Telephone 020 8675 5211 or visit www.cibse.org

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1 Annual review and updates to the log book

The log book should be reviewed annually as part of the organisation's quality assurance system and an entry should be made for each review. Where the log book has been updated then the changed pages should be recorded.

Review date	Description of annual log book review and updates made	Pages updated or added	Facilities manager's signature	Date
	<i>Refurbished tenancy handed over</i>	1	<i>R Geller</i>	1.04.06

2 Links to other key documents

Document (where applicable)

Emergency procedures

Health and safety file master index

*Operation and maintenance (O&M) manuals
(Including commissioning report and record drawings)
(single volume)*

Boiler log book

Location

RG's office, main filing cabinet, top drawer, red file

Ditto

Shelf in water tank cupboard

Shelf above boiler

3 Main contacts

<i>Emergency contact name 1</i> <i>Joe Tribiani</i> <i>Tribiani (Heating Engineers) Ltd.</i> <i>16 St Marks Road</i> <i>Tipton, LA6 2XY</i> <i>01211 888333 (joe@tribiani.co.uk)</i>	<i>Emergency contact name 2</i> <i>Dave Bassett (electrician)</i> <i>3 Lecombe Way</i> <i>Tipton, LA6 4SA</i> <i>01211 746821 (bassettd@cablenet.com)</i>
<i>Electricity emergency contact name</i> <i>North West Electricity</i> <i>York Street</i> <i>St Helens, JJ7 2DF</i> <i>01777 555111 (emergency@nwelec.co.uk)</i>	<i>Gas emergency contact name</i> <i>North West Gas</i> <i>Field Way</i> <i>Manchester, M60 3DS</i> <i>01333 222113</i> <i>(emergency@nwgas.co.uk)</i>

<i>Architect and log book author</i> <i>C Bing</i> <i>Bing and Bing Architects</i> <i>16 Crawley Road</i> <i>Tipton, LA6 6TU</i> <i>01211 524187 (cbing@bingandbing.co.uk)</i>	<i>Heating installers and maintenance</i> <i>Joe Tribiani</i> <i>Tribiani (Heating Engineers) Ltd.</i> <i>16 St Marks Road</i> <i>Tipton, LA6 2XY</i> <i>01211 888333 (joe@tribiani.co.uk)</i>
<i>Lighting installers</i> <i>R Green & Co.</i> <i>35 Gough Road</i> <i>Tipton, LA6 5HD</i> <i>01211 739287</i> <i>(richard.green@greenlight.co.uk)</i>	

4 Overall design of building/space

General description: *No 3 Wilson House is a small office tenancy within the main building. The premises are on two levels and are used by a computer consultancy. The main office is at ground level with a relatively high ceiling. Stairs lead to a mezzanine level that can be self contained. Occupancy is mainly during office hours but can often require late night working. There is a toilet, a small sink for hand washing and a shower cubicle.*

Client requirements: *The landlord required 21°C ± 2 °C as the heated temperature when the outside temperature is -4 °C. Domestic hot water is heated to 65 °C. Lighting is designed to give 450 lux.*

Overview of design: *The premises are naturally ventilated (no air conditioning) with two openable windows, one at ground floor level and the other on the mezzanine floor. These are the only means of ventilating and daylighting the space. Desk fans are used to aid circulation in summer. The windows open at the top by a pulley and cord arrangement. There are internal blinds to prevent glare. Space heating and domestic hot water are provided by a gas fired balanced flue condensing boiler located at ground floor level on the north wall. The hot water storage tank is in a cupboard under the stairs. The heating time clock is located next to the boiler. A single room thermostat near the entrance controls the space temperature and a cylinder thermostat controls the hot water temperature. There are 5 radiators, 4 of which are fitted with TRVs. General lighting is by low energy compact fluorescent lamps throughout with 5 ceiling mounted and 3 wall mounted to give a wash effect; all are controlled by manual light switches in the hallway. Desk lamps are used to supplement the general lighting. The gas and electricity meters are in a meter cupboard above the entrance.*

Special design features: *The condensing boiler should give high efficiency and low running costs, as should the low energy lighting.*

Design benefits: *The heating controls are easy to operate and have an 'advance' button to give 3 extra hours of heating for late night working.*

Design limitations: *Summer overheating is a possibility with the large glazed areas, particularly in the mezzanine area, into which hot air will rise. Desk fans may give some respite.*

'Dos and don'ts': *The heating time clock should not be overridden by clicking the '24 hour' button as this will operate the heating continuously including when the building is unoccupied, thereby significantly increasing running costs.*

5 Summary of areas and occupancy

Occupancy and activities: *Occupancy will generally be 4 people during working hours. Some intermittent out-of-hours working is also likely for one or two people.*

The total floor area of the building is 62 m² (based on gross floor area).

Floor plans: *Floor plans showing the location of the main plant and incoming energy/water meters are at the end of this log book, following section 10.*

6 Summary of main building services plant

Description	Description of controls and settings	Location	Capacity (kW)
<i>Imax T300 condensing boiler</i>	<i>Time clock set for 08:00 to 18:00 weekdays only.</i>	<i>Next to boiler</i>	<i>9.5 kW</i>
	<i>Room thermostat set to 21 °C.</i>	<i>Hallway</i>	
<i>Heating pump</i>	<i>Time clock set for 08:00 to 18:00 weekdays only.</i>	<i>In cupboard under stairs</i>	
<i>Hot water</i>	<i>Cylinder thermostat set to 65 °C.</i>	<i>In cupboard under stairs</i>	
<i>Ventilation</i>	<i>Top-opening windows</i>		
<i>Lighting</i>	<i>Low energy compact fluorescent throughout</i>		<i>15 W per lamp</i>
<i>Toilet/shower extract fan</i>	<i>Pull cord</i>		<i>0.2 kW</i>

Energy/water saving features: *condensing boiler, low energy lighting and good controls (see above).*

Tips for good operation: *leave blinds down overnight in summertime to reduce overheating in the morning.*

7 Occupant information

(This information should be photocopied and circulated to the building occupants, particularly new staff members)

In order to achieve a good working environment it is important that you understand how to control the building services in your space:

Heating: *Set room thermostat and TRVs to the required temperature. Do not turn fully off as there will be no heat the next morning. Use the 'Advance' button when working late; do not use the '24 hour' button.*

Lighting: *Compact fluorescent lighting controlled by manual switches located in the hallway.*

Windows: *Use the opening top lights on summer mornings to bring in cooler air to avoid overheating in the afternoon.*

Shading: *Use internal blinds to prevent glare although these are unlikely to prevent overheating on sunny days.*

Office equipment: *Ensure that 'stand-by' feature is enabled on computers, photocopier etc. to reduce energy consumption when not in use.*

Simple energy 'dos and don'ts':

- Avoid blocking radiators or ventilation grilles with furniture and books as this will result in a lack of heat/ventilation.
- Do not overheat or over-cool your space as this increases running costs and causes extra emissions of CO₂ into the external atmosphere.
- Set thermostats and thermostatic radiator valves (TRVs) to the required temperature then leave them alone. Do not use them as ON/OFF switches. If you turn TRVs fully OFF on Friday night then don't expect heat on Monday morning.
- Only switch the lights on that you need, and make sure you switch them off before you leave.
- Avoid leaving windows open at night for security reasons and to prevent heat loss that could make your space cold when you come in the next day.
- Ensure that PCs, printers etc. are not left ON unnecessarily and have any energy saving features enabled as this will prevent your space from overheating and save energy, thereby reducing CO₂ emissions to the external atmosphere.

8 Building performance records

Read the incoming energy meters regularly and log the readings on the metering pro forma, see below, in a separate file. From these readings add up the energy consumption for each form of incoming energy for the year and log these in the building performance section.

Meter reading pro-forma for small business premises

Year: <i>17</i>		ELECTRICITY		GAS	
Date	Time	Meter reading	Consumption (kW·h)	Meter reading	Consumption (kW·h)
		ANNUAL TOTALS			

Try and take readings over regular periods to allow comparisons, e.g. monthly, quarterly etc. Meter readings need only be taken annually but quarterly or monthly readings will help to identify excessive consumption quickly. Subtract previous meter reading to obtain consumption (kW·h) over that period. Additional pro-formas for years 2–5 are provided on subsequent pages. Where meters do not read in kilowatt-hours (kW·h), the designer/log book author should have provided appropriate conversion factors.

Overall annual energy performance: Summary of overall annual electricity, fossil fuel consumption and CO₂ against simple benchmarks

Building energy performance for period from _____ to _____							
Based on a gross floor area of <i>62</i> m ²							
Fuel	Quantity	(A) (kW·h)	(B) (CO ₂ ratio*)	(C) (kg CO ₂)	(D) Actual (kg CO ₂ /m ²)	(E) Design estimates (kg CO ₂ /m ²)	(F) Best practice benchmark (kg CO ₂ /m ²)
<i>Oil</i>	litre		0.27			—	—
<i>Gas</i>			0.19			<i>16.5</i>	<i>15.0</i>
<i>Electricity</i>			0.43			<i>20.1</i>	<i>14.2</i>
TOTAL						36.6	29.2

* This value may change year to year due to changes in the mix of electricity generation plant. Current figures are available from the Energy and Environment Helpline (0800 585794) or www.actionenergy.org.uk

Ensure that actual consumption figures do not include estimated bills and ensure they relate to a full exact 12 month period. (If not then record actual and adjust by number of days missing/extra). Use the total gross floor area shown in section 5. Multiply column (A) by column (B) to get (C) then divide by treated total building floor area to get (D) for comparison with benchmarks in columns (E) and (F). One overall performance indicator can be established by totalling column (D). Avoid adding column (A) as the fuels have different costs and CO₂ factors.

Do not remove from: *RG office; main filing cabinet; top drawer*

Historical building performance graph



9 Maintenance review

Contract with Tribiani Ltd. to service the heating system annually. Emergency electrician is Dave Bassett. See section 3 for contact details.

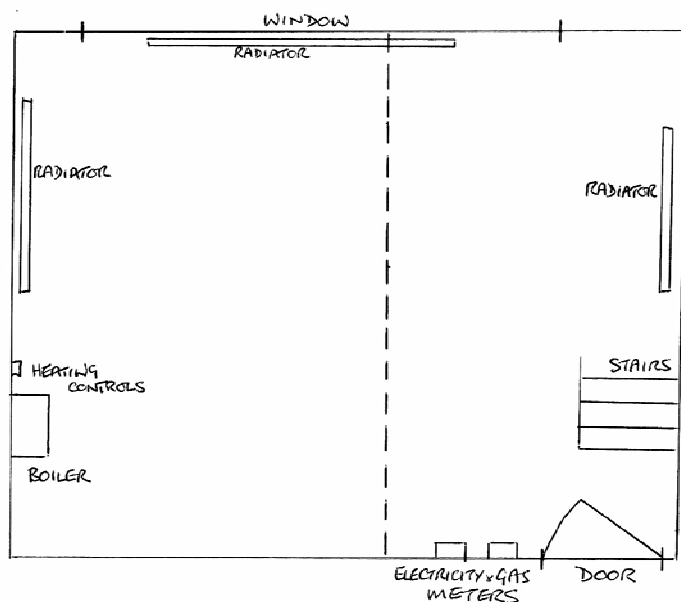
Description of regular maintenance, any plant failures and remedial work	Signed	Date

10 Major alterations

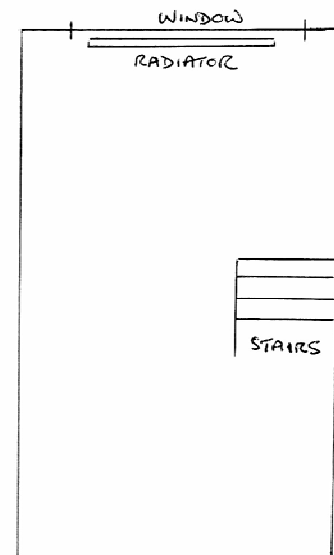
Any major alterations made to the building/space, its services, its operation or management should be logged below, e.g. boiler replacement, controls upgrade, changes in use, new management regime etc. Each change should be signed and dated by the facilities manager alongside the other page numbers of the log book that have been updated/added to reflect the alteration.

Description of alteration	Other log book pages updated or added	Signed	Date

No. 3 WILSON HOUSE FLOOR PLAN



GROUND FLOOR
42 m²



MEZZANINE
20 m²