Local exhaust ventilation – managing the risks: examination and testing

Scope

1. This standard applies to all local exhaust ventilation (LEV) used by employees, i.e. staff and post-graduate students, at UCL. Specifically it details the arrangements to ensure that such systems are examined and tested by competent persons.

2. Arrangements for all other aspects of the management of LEV are detailed in Safety Services guidance (for Departmental systems and equipment) and UCL Estates Standard Operating Procedures (SOPs) for Estates owned systems and equipment.

Legal requirements

3. The Control of Substances Hazardous to Health Regulations 2002 require UCL to:
   - Maintain engineering controls, including LEV, in an efficient state and in working order, in good repair and in a clean condition.
   - Thoroughly examine and test LEV at defined intervals (no more than one year) to ensure that it performs as originally intended and continues to adequately control exposure to substances hazardous to health.

Definitions

4. LEV can be defined as an engineering control system to reduce exposures to airborne contaminants such as dust, mist, fume, vapour or gas in a workplace. Most systems, but not all, have the following:
   - **Hood**: This is where the contaminant enters the LEV.
   - **Ducting**: This conducts air and the contaminant from the hood to the discharge point.
   - **Air cleaner or arrestor**: This filters or cleans the extracted air. Not all systems need air cleaning.
   - **Air mover**: The ‘engine’ that powers the extraction system, usually a fan.
   - **Discharge**: This releases the extracted air to a safe place\(^1\)

Risks associated with LEV

5. The main concern relates to the hazards created if the LEV does not control exposure adequately. This could be as a result of a failure in the system or one its component parts or else the system not otherwise performing as originally designed; hazards include exposure to biological, chemical or radioactive hazardous substances.

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\(^1\) LEV may discharge contaminated air to the external environment or else air is filtered appropriately to remove contaminants before being recirculated back to the working environment

UCL Safety Services
Responsibilities

6. The principal responsibilities for the management of health and safety are stated in the UCL Safety Policy (with line management/delegation of duty shown in the above organogram). Specific responsibilities relating to the management of LEV are stated below.

7. In all instances, the term ‘Responsible Person’, and the associated duties, applies equally to any nominated Deputy formally appointed to act on all occasions when the nominated Responsible Person is unavailable.

8. Allocation of responsibilities for the most common types of LEV is as follows:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Who is responsible for:</th>
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<tbody>
<tr>
<td></td>
<td>Maintenance in good working order and good repair etc*</td>
</tr>
<tr>
<td>Ducted fume cupboards</td>
<td>UCL Estates</td>
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<tr>
<td>Recirculating fume cupboards</td>
<td>Department</td>
</tr>
<tr>
<td>Ducted microbiological safety cabinet (any class)</td>
<td>UCL Estates – external fans and associated equipment, ductwork</td>
</tr>
<tr>
<td>Recirculating microbiological safety cabinet (any class)</td>
<td>Department</td>
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*Departments are responsible for maintaining the cleanliness of the working area of their LEV on a day-to-day basis and ensuring that it is appropriately decontaminated before any maintenance or testing is carried out (this should be recorded on the equipment decontamination certificate – http://www.ucl.ac.uk/estates/safetynet/guidance/vacating_areas/decon_equipment.pdf)

9. The relative responsibilities for other types of equipment, for example, capture hoods, down-draft tables, ventilated benches etc must be agreed in writing with the Responsible Person – LEV – Operation. For externally ducted systems, it is likely that Estates will be responsible for maintaining ductwork, fans and associated equipment, with departments being responsible for ensuring testing and examination.

10. **UCL Estates responsibilities**

10.1. **Head of Engineering - Responsible Person – LEV Governance**

The Head of Engineering has managerial responsibility for the governance of LEV risk compliance and providing supervision for implementation of the precautions through:

- Managerial responsibility for the UCL Standard and associated SOPs for the management of UCL’s LEV risks.
- Appointing, in writing, ‘Responsible Persons’ to be responsible for the day-to-day management of the examination and testing of UCL’s LEV (as well as other relevant duties).
- Ensuring that the Responsible Persons are aware of their roles and responsibilities and that they are competent to carry them out. The full details, expectations and requirements of this role are contained within the UCL LEV SOP, which is controlled by UCL Engineering, Maintenance and Infrastructure.
10.2. **Responsible Person – LEV – Operation**

The Responsible Person – LEV – Operation has been delegated the primary role to act as administrator in the management of LEV in accordance with this UCL standard and has managerial responsibility for supervising the implementation of this UCL standard, the SOP, and the management of the LEV under the control of UCL Estates.

10.3. **Responsible Person – LEV – Review and Change**

The Responsible Person – LEV - Review and Change has been delegated the managerial responsibility for:

- Reviewing the compliance and performance against this standard.
- Preparing Estates standard operating procedures for LEV management on behalf of the Head of Engineering, and periodically audit their implementation.
- Supervising the implementation of this standard and the management of any changes, additions to, or replacements of existing systems, or any new installations to, LEV under the control of UCL Estates.

The full details, expectations and requirements of this role are contained within the UCL LEV Standard Operating Procedure.

10.4. **UCL Estates (Capital Projects, Project Officers and Maintenance)**

UCL Estates (and any consultants they appoint) are responsible for ensuring systems are designed, installed and maintained in accordance with this UCL Standard, the Standard Operating Procedure and relevant documents listed in the references section of this standard. The Responsible Person – LEV — Review & Change is to approve each stage of any design. No system will be accepted unless the Responsible Person – LEV – Review & Change has given the final written approval.

11. **Departmental Responsibilities**

11.1. **Heads of Departments (other than UCL Estates), Responsible Person – LEV Governance**

Heads of Departments are responsible for identifying, assessing and controlling the risks from LEV systems used in their department not otherwise managed or owned by UCL Estates. Where such systems exist, the Head of Department must appoint a person(s); the Appointed Person (Statutory Testing) to prepare and maintain a local inventory of specific items and types of LEV to facilitate testing and examination. Details of the Appointed Person(s) must be kept in the Responsible Persons Register on RiskNET.

11.2. **Appointed Person – Statutory Testing**

The Appointed Person will maintain a list of LEV systems within their department. This information must be notified to the Responsible Person – LEV – Review and Change. Any changes to the list of systems i.e. new systems purchased or systems taken out of use/disposed of, must be notified to the Responsible Person as soon as possible.

The Appointed Person should liaise with relevant departmental staff to facilitate access, when required, to LEV for the purposes of testing and examination.

**Records**

12. The Responsible Person – LEV - Operation will maintain an inventory of all UCL LEV that they are wholly/partially responsible for as set out in paragraph 8 (or as agreed for specific items not listed in paragraph 8) and keep records to assist the competent person(s) with examination and testing. The following records will be kept:

- any designer’s/manufacturer’s/supplier’s documents; and
- the examination and test report produced by the competent person (records must be kept for 5 years; with a copy of the most recent report held locally by the Appointed Person ie where the LEV is sited);
**Monitoring & Review**

13. This standard shall be reviewed at least annually to ensure it remains up to date.

**References**


Safety Services Reference(s):

<table>
<thead>
<tr>
<th>First Published</th>
<th>August 2017</th>
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<tbody>
<tr>
<td>Reviewed</td>
<td>September 2018</td>
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