

Information for Employers and Duty Holders

LEV in Foundries: HSE Research Report RR1115

RR1115: Comments Relating to LEV

Design of LEV

Good design mainly consisted of extracted enclosures which removed the need for operator contact. For example; hot/cold core boxes, fully enclosed shot blasting machines, and enclosed and extracted cutting.

Poor design and therefore poor containment of contaminant clouds was found to be a result of inappropriate distances between extraction inlet and the source, wrong hood types used, hoods too small for the process, and lack of consideration of draughts and turbulence when in use etc.

Use of LEV

The use of airflow or pressure indicators, a useful visual tool for operators which can be easily retrofitted in most cases, was suggested.

Compressed air should not be used to clean LEV filters, or where the contaminant can be resuspended and enter the breathing zone.

Maintenance of LEV

Commissioning reports, issued following installation or retrospectively if needed, should confirm that the system operates as originally designed and provides adequate control. They should provide a reference for maintenance checks and Thorough Examination and Testing (TExT) reports to be compared to.

RR1115: Avoiding the Pitfalls Identified

The key message was that even with adequately designed, installed and commissioned LEV, the correct use and maintenance is critical to the success and efficacy of the control strategy. You should;

- Ensure the design of your LEV is suitable for the task / process
 - This may require additional retrospective alterations
- Ensure you use a competent person to carry out Thorough Examination and Testing (TExT) of your LEV at appropriate intervals (see Schedule 4 of the COSHH Regulations, 2002)
 - Following this implement all required maintenance tasks
- Ensure staff have received sufficient training to enable them to use the LEV / engineering control measures effectively
 - Supervise use regularly, re-train all staff periodically, and train new staff when they join
- Ensure in-house pre-use maintenance checks are carried out as appropriate (daily, weekly, monthly), and documented
 - Staff need suitable training to complete these checks and to understand how to identify and report concerns

An occupational hygienist can help you to implement steps to achieve compliance and protect your staff adequately