

Report of Thorough Examination and Test by a Competent Person of Local Exhaust Ventilation Equipment

Control of Substances Hazardous to Health
(COSHH) Regulations 2002

**Another County Council
Calder High School
Main Street
Calder
AE2 7QT**

Contract No: ROHSS070211-1

Item No: LEV1

Description: LEV Plant – Wood Working Workshop

ROHSS

Rundell Occupational
Health & Safety
Services



**CONTROL OF SUBSTANCES HAZARDOUS TO
HEALTH (COSHH) REGULATIONS 2002
REPORT OF THOROUGH EXAMINATION AND TEST BY A COMPETENT
PERSON OF LOCAL EXHAUST VENTILATION EQUIPMENT
TO MEET REQUIREMENTS OF REGULATION 9 (2)**



A Thorough Examination and Test by a Competent Person of the Local Exhaust Ventilation Equipment identified within this document was carried out in accordance with The Control of Substances Hazardous to Health Regulations 2002.

The maximum legal interval for thorough examination and test of this LEV plant is **14 Months**. However if wear and tear of the LEV System is liable to mean that the system effectiveness will degrade between tests then thorough examinations and tests should be more frequent.

Key Points

- ⦿ Every employer’s LEV system requires statutory “thorough examination and testing” by a competent person.
- ⦿ The examination and testing report must have a prioritised list of any remedial actions for the employer.
- ⦿ The employer’s engineer and person responsible for health and safety both need to see this report.
- ⦿ The Local Exhaust Ventilation System should be operated, cleaned and maintained in accordance with the designer, manufacturer, and installers instructions / recommendations
- ⦿ A user manual and logbook should be supplied as part of the design, installation and commissioning process. They contain standards for the thorough examination and test of Local Exhaust Ventilation Systems.
- ⦿ Further information can be obtained from HSE Guidance: HSG 258 Controlling airborne contaminants at work. A guide to local exhaust ventilation (LEV).
- ⦿ **This report should be kept for a period of at least FIVE Years. A copy should be available at the workplace containing the LEV System.**

LEV EQUIPMENT STATUS			
PASSED	✓	FAILED	
Comments / Observations			
See Section 16 (Observations).			

This report is a suitable record in respect of a thorough examination and test of the LEV plant, as required for the purposes of Regulation 9 (2) of the COSHH Regulations.

Date of Examination **7 February 2011**
 Report Date **7 February 2011**
 Next Thorough Examination Due Date **7 April 2012**

William R Rundell

Signature: William R Rundell IEng MIET MSOE MBES SIIRSM Tech IOSH



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|---|--|--------------------|----------------------|
| 1. <i>Name of Employer responsible for the plant</i> | Another County Council | <i>Contract No</i> | ROHSS070211-1 |
| 2. <i>Address of Employer</i> | Calder High School
Main Street
Calder
AE2 7QT | <i>Item No</i> | LEV1 |
| 3. <i>Location of local exhaust ventilation (LEV) plant.</i> | Wood Working Workshop 1 | | |
| 4. <i>Process and hazardous substances concerned.</i> | The extraction of wood dusts including hardwoods: Hazard Band 'E', Risk Phrase: R49 | | |
| 5. <i>Identification of LEV Plant</i> | MC2154 | | |
| 6. <i>Manufacturer</i> | MEL | | |
| 7. <i>Movability of plant</i> | Fixed | | |
| 8. <i>Description of plant</i> | LEV Plant – Wood Working Workshop 1 | | |
| 9. <i>Condition of LEV plant at time of test: normal production or special conditions.</i> | Normal Production | | |
| 10. <i>Is the LEV plant continuing to achieve its Commissioning / Intended Operating Performance for controlling the hazardous substance(s) for the purpose of Regulation (7)? Subject to any repairs included in section 11 below.</i> | This could not be ascertained as the Intended Operating Performance for controlling the hazardous substance(s) for the purposes of Regulation 7 was not provided at the time of this examination. However, measurements of the engineering parameters allied to visual techniques, indicated that the hazardous substance was being controlled. It will be necessary to supplement this report with results of air sampling. Provided that the results of the air sampling undertaken in this area indicate that the relevant Workplace Exposure Limits are not being exceeded, then it is suggested that the data contained within this report be accepted as the Intended Operating Performance for the system. | | |
| 11. <i>Any repairs required to maintain the intended operating performance.</i> | Not applicable. | | |
| 12. <i>Other repairs required.</i> | None | | |
| 13. <i>Define methods used to make judgement at 10 and 11 above.</i> | Air Flow Measurements
Dust Lamp
Pressure Measurement
Visual | | |
| 14. <i>Does this system return air to the workplace.</i> | Yes, exhaust air is returned to the workplace. | | |
| 15. <i>Date of last thorough examination and test.</i> | Unknown | | |
| 16. <i>Observations.</i> | The system was found to be extracting the contaminant satisfactorily. Traces of sawdust were found in the filter chamber, however no apparent damage to | | |

the filters or cover seals was evident. The filter chamber should be vacuum cleaned and monitored for further escape of saw dust.

We would recommend that the ducting and filters are thoroughly cleaned annually or in accordance with the manufacturer / installers instructions.

The duct velocity at the overhead (Top Hood) circular saw duct was below the recommended 15 m/s, however the contaminant was being controlled as demonstrated with the dust lamp.

System tested with all ducting dampers open.

The substance Risk Phrase (s) and Hazard band identified within section 4 of this report represents the most hazardous substance identified within the process. Other hazardous substances are used within the process but are represented in lower Hazard Bands.

17. *Details of instruments used in the inspection.*

Hot Wire Anemometer: Airflow – TA2 - S/N 123456
Pressure Meter: Neotronics – PDM304 – S/N 987654

18. *Photographs of System.*



PERFORMANCE DATA MEASURED DURING THIS EXAMINATION AND TEST

ENCLOSURES AND HOODS		Maximum number to be in use at any one time		3	
<i>Hood No</i>	<i>Location / Position</i>	<i>Static Pressure (kPa)</i>		<i>Face Velocity (m/s)</i>	
		<i>Measured</i>	<i>IOP</i>	<i>Measured</i>	<i>IOP</i>
1	Planer / Thicknesser	- 0.16	-	6	-
2	Circular Saw Blade Top	- 0.12	-	7.5	-
3	Circular Saw Blade Bottom	-	-	4	-

DUCTING						
<i>Duct No</i>	<i>Dimensions (mm)</i>	<i>Cross Sectional Area (m²)</i>	<i>Transport Velocity (m/s)</i>		<i>Volume Flow (m³/s)</i>	
			<i>Measured</i>	<i>IOP</i>	<i>Measured</i>	<i>IOP</i>
1	200	0.02	16.31	-	0.33	-
2	125	0.01	16.81	-	0.17	-
3	80	0.05	7.06	-	0.35	-
4	160	0.02	14.71	-	0.29	-

FILTER/COLLECTOR							
<i>Specification</i>	<i>Volume Flow (m³/s)</i>	<i>Static Pressure at inlet (kPa)</i>		<i>Static Pressure at outlet (kPa)</i>		<i>Static Pressure across filter (kPa)</i>	
		<i>Measured</i>	<i>IOP</i>	<i>Measured</i>	<i>IOP</i>	<i>Measured</i>	<i>IOP</i>
Cloth Bag	1.14	0.86	-	0.1	-	0.76	-

FAN OR AIR MOVER				
<i>Specification</i>	<i>Rating (kW)</i>	<i>Direction of Rotation</i>	<i>Volume Flow (m³/s)</i>	<i>Static Pressure at inlet (kPa)</i>
Centrifugal	2.2	Anti Clockwise	1.14	-1.09

SYSTEMS WHICH RETURN AIR TO THE WORKPLACE
<i>Concentration of contaminant in return air.</i>
Concentration of contaminant not measured.

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Contract No	ROHSS070211-1	Item No	LEV1
Name of Client	Another County Council: Calder High School	LEV Plant Identification	MC2154
Details shown were obtained during the thorough examination and test carried out on.	07/02/2011	Signature	William R Rundell

SYSTEM DETAILS

