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| **SUMMARY OF THE ASSESSMENT OF CONTROL**  **SATISFACTORY**  *Refer to page 1 for Defects & Recommendations* |

**COMMISSIONING/INITIAL THOROUGH EXAMINATION AND TEST**

**OF LOCAL EXHAUST VENTILATION (LEV) PLANT**

**IN COMPLIANCE WITH REGULATION 9 of CoSHH REGULATIONS 2002**

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| **system details & ID** | | | |
| **Site Name:** | \* | **System ID:** | \* |
| **Site Address:** | \* | **Location:** | \* |
| **Date of TExT:** |  | **Process:** | \* |

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|  | **EXAMINERS/COUNTERSIGNATORIES** | | |
| **Examiner Name** | **Designation** | **Date** | **Signature** |
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| **Examiner Qualification(s)** | **Date(s)** | **Certificate No(s)** | |
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| **Countersignatory** | **Designation** | **Date** | **Signature** |
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| **Client Representative**  **Accepting Report** | **Title** | **Date** | **Signature** |
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| **eXECUTIVE SUMMARY** |
| [John Doe] visited site on [xx yyy 20xx] to conduct the thorough examination of this LEV System to comply with Regulation 9 of CoSHH 2002 (As amended).  The system is a [dust extraction system] installed in [20xx]. The system consists of [enclosed hoods], [duct], [mechanical shake filter unit], [fan] and [discharge stage] which [terminates outside]. The system extracts [Silica dust from … a process …..] and is designed to be used with a maximum of [3 dampers open at any one time].  [We conducted quantitative assessments at a number of test points within the duct, at least 6-8 duct diameters from turbulent. Qualitative assessments were undertaken using a tyndall assessment with the operator conducting normal tasks]. [The operator was observed using the LEV system correctly]. Based upon the collective findings we find this system to be operating [satisfactory if properly used and maintained].  Our findings are further detailed within this report. |

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| **DEFECTs & recommendations** | | | | | |
| **LEV Examiner** | | | **Employer’s Use** | | |
| **Item in LEV System** | **Action Required** | **Priority\*** | **Person to Take Action** | **Target Date** | **Date Completed** |
| [Hoods] | [Retrofit hood gauges] | [1] |  |  |  |
| [LEV] | [Keep this report safe for 5 years to comply with CoSHH] | [4] |  |  |  |
| Shade Red any Critical Defects Found | |  |  |  |  |
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| *\*Priority – e.g. 1 = high, 2 = normal, 3 = routine, 4 = awareness*  *Shade* ***RED*** *all Critical Defects* | | | | | |

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| 1. **SYSTEM GENERAL DESCRIPTION** | | **SYSTEM PHOTOGRAPH(S)** |
| *Refer to diagram*  *Include notes on any changes since previous INITIAL and/or from original design/installation (where appropriate)* | | *Annotate photographs and state what they relate to and their significance* |
| 1. **METHODOLOGY FOR TExT** | | |
| *Outline all parameters you would expect to measure*  *If required – refer to more detailed Methodology in an Appendix (eg use of equal area duct traverse, face velocity test points chosen etc)*  *[IT IS ACCEPTABLE TO HSE IF THE METHODOLOGY IS GOING TO BE THE SAME FOR A NUMBER OF SIMILAR SYSTEMS – THAT THIS SECTION IS TAKEN OUT AND MADE A GENERIC STATEMENT (say) AT THE FRONT OF THE BATCH OF REPORTS FOR ALL THE SYSTEMS]* | | |
| 1. **PLANT,PROCESS & LEV ARRANGEMENT AT TExT** | | |
| **Was the Plant, Process and the LEV/Control System Operating Normally at TExT? If not explain how TExT undertaken.** |  | |

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| **TEST FREQUENCIES** | |
| **Interval Between Routine Examinations:** | [1/6 or 12 months] *remember may need to stipulate more frequent intervals depending on findings* |
| **Date next TExT due:** | \* |

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| **available documentation** | |
| **Commissioning Report Available?** | \* |
| **LEV System Manual Available?** | \* |
| **LEV System Log Book Available?** | \* |
| **CoSHH Health Risk Assessments?** | \* |
| **DSEAR Risk Assessments?** | * State if not Applicable |

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| **Occupational hygiene** | |
| **Process Description:** | \* |
| **Substance(s) to be Controlled:** | \* |
| **Workplace Exposure Limits** *(if available)***:** | \* |
| **Substance Benchmark**  **(WEL or Control Banding):** | \* |
| **Has Occupational Hygiene Monitoring been Carried out in Area?** | Yes/No |
| **If ‘Yes’, Summarise Findings:** | \* *And note a Reference for the Occ Hygiene Report* |

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| **fan specification & TEST RESULTS** | |
| **Fan Manufacturer & Type:** | [Centrifugal/Axial/Bifurcated] |
| **Model & Serial Number:** | \* |
| **Drive:** | [Direct/Belt/Compressed air] |
| **Motor Speed (RPM):** | [Backward curve/Forward curve] |
| **Motor Rating/Current:** | [415/50/3Ph] |
| **Impeller Type:** | [Backward curve/Forward curve] |
| **Rotation Direction:** | [Clockwise/counter clockwise] |
| **Fan Rotating in Correct Direction?** | [Yes/No] |
| **Method used to Determine Fan Direction** | \* |
| **Fan Inlet Static Pressure (Pa)** | \* |
| **General Condition of Fan:** | [Acceptable, signs of rust on casing, Noise, Vibration?] |

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| **10a. filter/Air cleaner SPECIFICATION Tick if NOt Applicable □** | |
| **If Multiple Filtration State Arrangement:** | \* *And describe info in below boxes for each type.* |
| **Filter Manufacturer & Type:** | [Mechanical shake/Reverse jet/Packed tower scrubber] |
| **Model & Serial Number:** | \* |
| **Primary Filtration Media Type:** | \* |
| **Air Recirculated back into the Workplace?** | \* |
| **If ‘Yes’, Is There Suitable Secondary Filtration?** | [Yes/No] |
| **Secondary filter media type:** | \* |
| **10B. FILTER/AIR CLEANER EXAMINATION & TEST TICK IF NOT APPLICABLE □** | |
| **General Physical Condition of Filter:** | \* |
| **Filter Media Condition?** |  |
| **Evidence of Contaminant Break-through?** | \* |
| **Primary Filter Pressure Drop:** | \* |
| **Recirculating Filter efficiency:** | [eg Results of real-time particle count] |
| **Cleaning Mechanism Operating correctly?** | \* |
| **Condition of bin seals?** | \* |
| **Condition of door seals?** | \* |

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| **atex/dsear Tick if NOt Applicable □** | |
| **Is the Substance Explosive?** | [yes/no/recommend dust testing] |
| **Filter Explosion Relief Type:** | \* |
| **Does Explosion Relief Vent to a Safe Place and in Safe Manner?** | \* |
| **Non-return valves in duct?** | \* |

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| **duct specification** | |
| **Duct Type:** | [Circular galvanised with flexible hose connections] |
| **Duct Temperature:** | \* |
| **Barometric Pressure:** | \* |
| **External Condition of Duct:** | \* |
| **Damper settings?** | \* |
| **Inspection Hatches Fitted?** | \* |
| **Internal Examination (visual/borescope)** | \* |

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| **stack/termination Tick if NOt Applicable □** | |
| **Stack Type:** | [Vertical offset discharge] or Recirc system exhausting inside? |
| **Stack Height:** | \* |
| **Stack Height Sufficient to Ensure Dispersion?** | \* |
| **Weatherproof Termination?** | \* |
| **Condition of Stack:** | \* |

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| **make-up air Tick if NOt Applicable □** | |
| **Make-up air Type:** | [automatic damper opens when LEV is switched on] |
| **Adequate Quantity?** | \* |
| **Induced/Unwanted Drafts?** | \* |
| **Comments:** | \* |

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| **ALARMS** | |
| **Hood/Enclosure:** | \* |
| **Duct:** | \* |
| **Air Cleaner:** | \* |
| **Air Mover/Fan:** | \* |
| **Returned Air:** | \* |
| **Comments:** | \* |

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| 1. **SCHEMATIC** | | | | | | | | | |
| *Must record all relevant details, eg duct sizes, junction angles and types, baffles, dampers etc*  *Might need to also do a simple floor plan illustrating/showing any other systems or processes which may interact or interfere with the system under test*  For Schematics could use:   * Word drawing tools * Draftsight, a free to use CAD software. Copy & paste and crop, resize accordingly. | | | | | | | | | |
| 1. **DUCT QUANTITATIVE RESULTS** | | | | | | | | |
| **Describe Style and Type of Ducting:** | | |  | | | | | |
| **Ducting suitable for**  **Process/Substances?** | | | *Also comment on appropriateness (or not) of the POSITION of the test points* | | | | | |
| **Test Point ID** | **Description** | **Diameter /Dimension** | **Duct Area** | **Static Pressure** | **Average**  **Velocity Pressure y** | **Duct Velocity** | | **Duct Volume flow x** |
| **Measured \*** | **Min Transport Velocity** |
|  |  | **(mm)** | **(m2)** | **(Pa)** | **(Pa)** | **(m/s)** | **(m/s)** | **(m3/s)** |
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| **Y** *Indicate in Appendix how readings were obtained (eg 2 holes 900 and how many readings in each traverse?)*  **X** *Indicate how reading was calculated, ie from duct velocities and area or from hood data*  **\*** *If flexible indicate if velocity was calculated from hood flowrate and duct diameter* | | | | | | | | |

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| **18. HOODS** | | | |
| **Hood Suitable for Substance/Process (Benchmark)?** | \* | **Hood(s) Suitable for Substance/Process (Benchmark)?** | \* |
| **No. Hoods on System:** | \* | **No Hoods to be used at any one time?** |  |
| **Hood Static Pressure Gauges or Indicators Installed?** | \* | **Hood Pass /Fail Labels Fitted?** | \* |
| **Were operators working at process during TExT?** | \* | **Captor Hood “Effective Distance” Labels Attached?** | \* |
| **If so – Describe way in which operators were using/interfacing with system:** | \* | | |

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| **19. HOOD QUANTITATIVE RESULTS** | | | | | | | | | |
| **Hood ID** | **Hood Type/Description** | **Hood Open Area** | **Sash or Opening Height** | **Face Velocity** | | **Hood** | **Capture Distance** | | **Volume Flow Rate** |
| **Actual *‡*** | **Min Required** | **Static Pressure** | **Fletchers Calculated Distance** | **Confirmed? (State Method)** |
|  |  | **(m2)** | **(m)** | **(m/s)** | **(m/s)** | **(Pa)** | **(mm)** |  | **(m3/s)** |
|  |  |  |  |  |  |  |  | [Yes/No] |  |
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| *Fletcher’s Equations*      *Fletcher used to calculate Captor Distance of Captor Hoods.*  *Use OXYL8 (free) App or OXYL8 (free) Excel Spreadsheet* | | ***‡*** *For Booths etc - use Appendix Form to show individual readings at each hood and show max +/- deviations from ‘Mean’ for every reading (ie all within +/- 20% of ‘Mean’?)* | | | | | | | |

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| **20. QUALITATIVE TESTS & VISUAL INSPECTION REPORT** |
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| **21. INSTRUMENTS USED** | | |
| **Instrument Description** | **Serial Number** | **Last Calibration Date** |
| \* *Can use a generic at the front of a series of reports if same instruments used throughout* | \* | \* |
| \* | \* | \* |
| \* | \* | \* |
| \* | \* | \* |
| **22. STATEMENT OF SYSTEM PERFORMANCE OR ioP IF KNOWN** | | |
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| **23. REFERENCES** |
| HSG258; Controlling airborne contaminates at work. A guide to local exhaust ventilation (LEV); HSE Books |
| L5; The Control of Substances Hazardous to Health Regulations (CoSHH) 2002. Approved Code of Practice and guidance (Sixth Edition) HSE Books |
| Management of Health and Safety at Work Regulations; The stationary office 1999 SI 1999/3242. |
| The Dust Lamp: a simple tool for observing the presence of airborne particles. MDHS82/2; HSE Books 2015 |
| EH40/2005 Workplace Exposure Limits: Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations 2002 (as amended); August 2018; ISBN: 9780717667031 |
| Industrial Ventilation: A Manual of Recommended Practice for Design, 30th Edition; ISBN: 978-1-607261-08-7 2019 |