**Local Exhaust Ventilation (LEV)**

**Thorough Examination & Test Report**

|  |  |
| --- | --- |
| **System ID:** |  |
| **Date of Inspection:** |  |
| **Report Reference:** |  |

|  |  |
| --- | --- |
| **Summary of the Assessment of Control** | |
| **Satisfactory** | **Unsatisfactory** |

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| **Section 1 Executive Summary** |

The “enter system description” has been subjected to a thorough examination and test to ensure it can provide adequate control to comply with the Control of Substances Hazardous to Health (COSHH) Regulations 2002 (as amended). The outcome of this assessment is that the system has been deemed Satisfactory / Unsatisfactory, there are some areas that require attention to improve the system or bring the system into compliance. These are listed below in order of priority

|  |  |  |  |
| --- | --- | --- | --- |
| Item |  | Responsible person | Due date |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |
| 5 |  |  |  |

|  |  |
| --- | --- |
| Section 2 **Clients Details** | |
|  |  |
| Name: |  |
| Address: |  |

|  |
| --- |
| Section 3 **Site Details** |
|  |
| Address/site: |
|  |
| Area/room number/name: |
|  |
| Conditions during test: |
|  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Section 4 **LEV Plant Details** | | | | | | | | | | |
|  | | | | | | | | | | |
| Serial number: |  | Asset number: | | |  | | |  | | |
| Brief description of system: (what to be controlled, how to be controlled, number of hoods to be used at any time, system details) | | | | | | | | | | |
|  | | | | | | | | | | |
| Description of process to be controlled: | | | | | | | | | | |
| (including: type of tool/equipment/machinery, frequency of process, duration of process, quantities of substances, operating temperatures, other control measures to be used) | | | | | | | | | | |
|  | | | | | | | | | | |
| Identify Hazardous Agent(s) to be controlled (chemical/biological): | | | | | | | | | | |
| (including: substance name, WEL, quantity being used, physical form, corrosivity, vapour density) | | | | | | | | | | |
|  | | | | | | | | | | |
| Has anything changed since commissioning? | | | Yes |  | | No |  | |  |

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| Section 5 **Test Engineers Details** | | | |
| I can confirm that the system addressed by this report has been carried out in full accordance with COSHH Regulation 9 and is providing adequate control of the hazardous substance(s) being used. | | | |
| Name: |  | Signature: |  |
|  | | | |
| Contact details: |  | | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Section 6 **Additional Plant Information** | | | | |
|  |  | | | |
| Frequency of testing: | Monthly | 6 monthly | 14 monthly | Other (specify) |
| (Tick one) |  |  |  |  |
|  | | | | |
| Evidence of: | COSHH Reg 6 Risk Assessment | DSEAR Reg 5 Risk Assessment | Material Safety Data Sheets |  |
| (Tick) |  |  |  |  |
|  | | | | |
| Evidence of: | Design Specification | Logbook | O&M Manual | User training records |
| (Tick) |  |  |  |  |

|  |  |  |  |  |
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| Section 7 **DSEAR & ATEX** | | | | |
|  | | | | |
| Is the substance: | Flammable? | Y/N | Explosive? | Y/N |

|  |  |  |  |
| --- | --- | --- | --- |
| Is the generation of an explosive atmosphere? | Present | Likely | Unlikely |
| (Tick one) |  |  |  |
| DSEAR Zoning: | Work area | Hood | Plant |
| (Tick one) |  |  |  |
| Lower Explosive Limit: |  | Upper Explosive Limit: |  |
|  |  |  |  |
| Explosion vent panel: | | | |
| Is one required? | Y/N | Is one fitted? | Y/N |
| Is it venting to a safe place? | Y/N | Is it in good condition? | Y/N |
| Explosion non-return damper: | | | |
| Is one required? | Y/N | Is one fitted? | Y/N |
| Is the connecting ductwork suitable? | Y/N |  |  |

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| Section 8 **Conclusions and Comments** | |
| e.g., repairs or adjustments made, items likely to fail prior to next test | |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |

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| --- | --- | --- | --- |
| Section 9 **Schematic** | | | |
| Line schematic to show key components of the system. | | | |
|  | | | |
|  |  |  |  |
| Notes/Comments: | | | |
|  | | | |
|  | | | |

|  |  |  |
| --- | --- | --- |
| Section 10 **Photographs** | | |
|  | Photo | Description/Comments |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |

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| Section 11 A**ssessment** |

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| --- | --- |
| **Hoods** |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Hood Ref** | **Type** Receiving | Capture | Partial |Full Enclosure | Other (specify) | **Dimensions** | **Benchmark** | | **Airflow** | **Measured** | | **Test kit used** |
| Static pressure | Face Velocity |
| (m) | (Pa) | (m/sec) | (m3/sec) | Velocity  (m/sec) | Static Pressure  (Pa) | Hotwire / Rotating Vane |
|  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |

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| Hood diversity |  | of |  | in use at any given time. |  |
| Statement on effective capture zone: | The contaminant is / is not released in the effective capture zone of the hood. | | | | |
| Method of test: (Provide photographic evidence) | Smoke release | Dust Lamp | Other (specify) | | | | |
| Notes/comments: *e.g., Comparison with commissioning, Installed in accordance with design, appropriateness, usage, effectiveness of control, air flow indication devices etc*. |  | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Clearance time** | | Is appropriate? | | | | | YES (complete below) | | | | |  | | NO (move to next section) | | | |  | |  | |
|  |  | | Benchmark | | | | | | Measured | | | | | | | | | | | | |
| Hood Ref | Size | | Air volume flow rate | | Clearance time | | | | Air volume flow rate | | Clearance time | | | | | Comments | | | | | |
| (m x m) | | (m3/sec) | | (minutes) | | | | (m3/sec) | | (minutes) | | | | |
|  |  | |  | |  | | | |  | |  | | | | |  | | | | | |
|  |  | |  | |  | | | |  | |  | | | | |  | | | | | |
| **Filter** | | | | Is a filter fitted? | | | | YES (complete below) | | | | |  | | NO (move to next section) | | | |  | |  |
| Visual assessment | | | |  | | | |  | | | | | | | | |  | | | | |
| Filter type | | | |  | | | | Manufacturer | | | | | | | | |  | | | | |
| Model | | | |  | | | | Serial number | | | | | | | | |  | | | | |
| Filter media type | | | |  | | | | Filtration area (m2) | | | | | | | | |  | | | | |
| Antistatic | | | |  | | | | Condition of filter media | | | | | | | | |  | | | | |
| Air Return to working environment (if yes see below) | | | |  | | | | Filter Monitoring e.g., Alarms | | | | | | | | |  | | | | |
| Cleaning device type  (compressed air/shaker/water pump etc) | | | |  | | | | Condition | | | | | | | | |  | | | | |
| Duration of cleaning period | | | |  | | | | Frequency of cleaning | | | | | | | | |  | | | | |
| ATEX Rating | | | |  | | | | Explosion Relief | | | | | | | | |  | | | | |
| Earth bonding | | | |  | | | | Explosion relief location | | | | | | | | |  | | | | |
| Explosion non-return damper | | | |  | | | | High pressure ducting  (between plant and non-return damper) | | | | | | | | |  | | | | |
| Quantitative assessment | | | |  | | | |  | | | | | | | | |  | | | | |
|  | | | | Benchmark | | Measured | | | | Comments | | | | | | | | | | | |
| Inlet Static pressure (Pa) | | | |  | |  | | | |  | | | | | | | | | | | |
| Outlet Static (Pa) | | | |  | |  | | | |  | | | | | | | | | | | |
| Differential Pressure (Pa) | | | |  | |  | | | |  | | | | | | | | | | | |
| Volume Airflow rate (m3/hr) | | | |  | |  | | | |  | | | | | | | | | | | |
| Contaminant Breakthrough | | | |  | | Filter efficiency | | | |  | | | | | | | | | | | |
| Notes/comments: *e.g., Installed in accordance with manufacturers design, pressure gauges fitted either side of filter, noise levels, vibration, corrosion etc.* | | | |  | | | | | | | | | | | | | | | | | |

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| **HEPA Filter** | | Is the air returned to the working environment? | | YES (complete below) | |  | NO (move to next section) | |  |  |
|  |  | Is a HEPA filter fitted? | | YES (complete below) | |  | NO (move to next section) | |  |  |
| Visual assessment | |  | |  | | | |  | | |
| Filter type | |  | | Manufacturer | | | |  | | |
| Model | |  | | Serial number | | | |  | | |
| Filter media type | |  | | Filtration area (m2) | | | |  | | |
| Condition of filter media | |  | | Filter Monitoring e.g., Alarms | | | |  | | |
| Has it been tested to  ISO14644-3 | |  | | Test results | | | |  | | |
| Date of last test | |  | | Date of next test (minimum 6 to 12month) | | | |  | | |
| Quantitative assessment | |  | |  | | | |  | | |
|  | | Benchmark | Measured | | Comments | | | | | |
| Inlet Static pressure (Pa) | |  |  | |  | | | | | |
| Outlet Static (Pa) | |  |  | |  | | | | | |
| Differential Pressure (Pa) | |  |  | |  | | | | | |
| Volume Airflow rate (m3/hr) | |  |  | |  | | | | | |
| Contaminant Breakthrough | |  | Filter efficiency | |  | | | | | |
| Notes/comments: *e.g., Installed in accordance with manufacturers design, pressure gauges fitted either side of filter, compliance to ISO14644-3 etc.* | |  | | | | | | | | |

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| **Fan** | | | | | |
| Visual assessment |  | |  | |  |
| Fan type |  | | Type of impeller | |  |
| Manufacturer |  | | Impeller plate RPM | |  |
| Model |  | | Impeller direction of rotation | |  |
| Fan Serial number |  | | Fan Monitoring - Alarms | |  |
| ATEX Rating |  | | Fan size | |  |
| Direction of Rotation |  | |  | |  |
| Quantitative assessment |  | |  | |  |
|  | Benchmark | Measured | | Comments | |
| Static pressure: |  |  | |  | | |
| Inlet (Pa) |  |  | |  | | |
| Outlet (Pa) |  |  | |  | | |
| Fan Volume Airflow rate (m3/hr) |  |  | |  | | |
| Total pressure (Pa) |  |  | |  | | |
| Notes/comments:  *e.g., Installed in accordance with manufacturers design Are pressure gauges fitted either side of fan, noise levels, vibration, corrosion etc.* |  | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Fan Drive type** | | **Direct** | |  |  | **Belt** | |  |  |
| Fan pulley size |  | | No. of belts | | | |  | | |
| Motor pulley size |  | | Belt type | | | |  | | |
| Pulley centres |  | | Belt tension | | | |  | | |
| Measured fan RPM |  | | Measured motor RPM | | | |  | | |
| Notes/comments: |  | | | | | | | | |

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| **Motor** | | | |
| Electrical supply – Voltage |  | Motor rating (kW) |  |
| Manufacturer |  | Motor Current Plated (Amps) |  |
| Model |  | Motor Current Measured (Amps) |  |
| Motor Serial number |  | Motor plate RPM |  |
| ATEX Rating |  |  |  |
| Notes/comments: |  | | |

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| --- | --- | --- | --- |
| **Controls** | | | |
| On/Off or Variable Speed Drive |  | Manual / Automatic |  |
| Speed setting |  | Alarms / Warning devices fitted |  |
| Electrical compliance  (evidence of certification to IEE BS7671) |  | Condition |  |
| Notes/comments: |  | | |

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| --- | --- | --- | --- |
| **Other** | | | |
| Fire suppression system |  |  |  |
|  |  |  |  |
| Notes/comments: |  | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Ducting** | | | |
| Visual assessment |  |  |  |
| Material |  | Condition – inside |  |
| Balancing dampers |  | Condition – outside |  |
| Flexible ducting condition |  | Inspection hatches |  |
| Earth bonding |  | Explosion hatches |  |
| Notes/comments:  *e.g., Installed in accordance with design* |  | | |
| Quantitative assessment | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Benchmark** | | **Measured** | |  |
| **Test point Ref** | **Diameter** | **Static pressure** | **Transport Velocity** | **Static pressure** | **Transport Velocity** | **Comment**  *e.g., Comparison benchmark v Measured, Potential for blockage, Ease of access, suitability of test point etc.* |
| (m) | (Pa) | (m/sec) | (Pa) | (m/sec) |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

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| --- | --- | --- | --- |
| **Discharge Arrangement** | | | |
| Type |  | Location |  |
| Stack height |  | Stack discharge velocity |  |
| Notes/comments:  *e.g., Effectiveness, risk of recirculation, effect on neighbours, source of make-up air etc.* |  | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Air sampling results** | Has air monitoring been conducted? | YES (complete below) |  | NO (move to next section) | |  |  |
| Report reference |  | Date of report | | |  | | |
| Notes/comments: |  | | | | | | |

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| --- |
| Section 12 **Calibration Certificates** |

|  |  |
| --- | --- |
| Hotwire Anemometer | Rotating Vane Anemometer |
|  |  |
| Manometer | Tachometer |
|  |  |
| Other: | Other: |
|  |  |