**Project Risk Assessment**

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| --- | --- | --- | --- | --- |
| **Project title:** |  | | | |
| **Student experimenter:** |  | | | |
| **Project supervisor:** |  | | | |
| **Location:** |  | | | |
| **Duration:** | **Start date:** |  | **End date:** |  |

|  |  |
| --- | --- |
| **Safety key no. (if applicable):** |  |
| **Main point of isolation:** |  |
| **Special precautions/instructions:** |  |

**LEVEL OF SUPERVISION**

(to be completed by the Academic Supervisor/Laboratory Manager)

|  |  |
| --- | --- |
| Work to be carried out only with other Authorised Experimenters/Authorised Student Experimenters present in the laboratory: |  |
| Work to be carried out in the presence of the student’s Academic Supervisor: |  |
| Work to be carried out in the presence of a Senior Authorised Experimenter (SAE): |  |
| Work to be carried out with a SAE present in the building: |  |

**ACKNOWLEDGEMENT**

The Risk Assessment is valid only for the work described in this document and for the indicated dates. Any change in the work beyond what is identified in this document means that work must stop and the Risk Assessment reviewed. This Risk Assessment should be clearly displayed at the location where the work is taking place at all times.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Student name:** |  | **Signature:** |  | **Date:** |  |
| **Supervisor name:** |  | **Signature:** |  | **Date:** |  |

**METHOD STATEMENT**

<Description of the experiment/work undertaken including relevant diagrams and list of equipment>

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Hazard(s)**  **&**  **Possible Consequences** | **Persons or Equipment**  **at Risk** | **Control measures applied to eliminate / minimise risk** | **Residual risk with control measures applied** | | | |
| Severity | Likelihood | Risk rating | Risk Acceptable? |
| Electric shock from high voltage (1kV up to 30kV)  Operating at approx. 20kV | Anyone present in the laboratory | 1. HV supply is safely interlocked to prevent supply being energised when test area doors are open.  2. Remote operation of test equipment from outside salt fog chamber.  3. Operation of HV test supplies is supervised by appropriately trained and experienced personnel only.  4. Test supply controlled by safety key- kept on the person of the experiments at all times when test rig is not energised.  5. Manual earths applied to supply outputs when entering the test area.  6. Warning lights and hazard notices are prominently displayed. | 5 | 1 | 5 | yes |
| Electric shock from low voltage(below 1kV) | Test Operator | All Low Voltage 0 - 415V Supply To Salt Fog Chamber Controlled Outside Chamber From Appropriate Control Panel. All Voltage, Current & PD Measurements To Be Made Via Low Impedance Sources. | 2 | 2 | 4 | yes |
| Head Height Hazards | Person setting up the experiment | Head height hazard presented by overhanging bushing inside the chamber and insulators, suspended inside the chamber. | 4 | 1 | 4 | yes |
| Slip hazards due to water | Person setting up the experiment | Slip hazards may be present due to small amounts of water being present on chamber floor. All excessive water to be mopped after test so floor surface isn’t at slip. | 5 | 1 | 5 | yes |
| Trip hazards due to trailing leads | Anyone Present In The Laboratory | Trip hazards present from earth and instrumentation leads inside and outside chamber | 2 | 1 | 2 | yes |
| Fire | Anyone in the Building | Rig currently is not developed for long term unsupervised testing. Additional safeguards against fire to be fitted in the event of long term testing. Heat detectors in chamber to isolate supply in the event of a fault. | 5 | 1 | 5 | yes |
| Legionnaires Disease | Anyone present in the building | Test Facility to be disinfected using dilute sodium hypochlorite solution as specified in cleaning method statement on a regular basis. | 3 | 2 | 6 | yes |

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| --- | --- |
| **Risk Assessment Matrix**  Likelihood (1-5) x Severity (1-5) = Risk  (See attached matrix for guidance) | **1 – 5**: **Low**: Tolerable 🡪 monitor and manage |
| **6 – 8: Medium:** Review 🡪 introduce further controls to reduce to as low as reasonably practicable |
| **9 – 25: High:** Intolerable 🡪 do not commence work, further control measures required |

**RECORD OF CHEMICAL USAGE WITHIN EXPERIMENT**

| **Chemical** | **Reason for use** | **Data sheet /COSHH attached?** | **Are hazards resulting from use described in the**  **Risk Assessment Table?** | **Method of disposal** |
| --- | --- | --- | --- | --- |
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**HAZARD CHECKLIST**

You should indicate the hazards present in the experiment in the table below. If a hazard is present, control measures should be stated on the risk assessment. Note that this list is not exhaustive.

|  |  |  |
| --- | --- | --- |
| **Hazard Type** | **Present** | **Not Present** |
| Electric shock from high voltage (1 kV & Over) |  |  |
| Electric shock from low voltage (Under 1 kV) |  |  |
| Tripping hazards |  |  |
| Slipping hazards |  |  |
| Fire |  |  |
| High temperatures |  |  |
| Low temperatures |  |  |
| High pressure |  |  |
| Low pressure |  |  |
| Chemical spillage |  |  |
| Chemical contact (ingestion, eye & skin contact) |  |  |
| High noise levels |  |  |
| Working at height |  |  |
| Head height hazards |  |  |
| Production of dust & fumes |  |  |
| Manual handling |  |  |
| Production or use of radiation |  |  |
| Use of asphyxiating gases |  |  |
| Any other hazards (specify) |  |  |

**RISK ASSESSMENT SEVERITY MATRIX**

**SEVERITY VALUE** **= Potential consequence of an incident/injury given current level of controls.**

5 Very High: Death / Permanent incapacity / Widespread loss

4 High: Major Injury (Reportable Category) / Severe Incapacity / Serious Loss

3 Moderate: Injury / Illness of 3 days or more absence (reportable category) / Moderate loss

2 Slight: Minor injury / Illness – Immediate 1st Aid only / slight loss

1 Negligible: No injury or trivial injury / illness / loss

**LIKELIHOOD = what is the potential of an incident or injury occurring given the current level of controls.**

5 Almost certain to occur

4 Likely to occur

3 Quite possible to occur

2 Not likely to occur

1 Almost certain not to occur

**Risk Classification Value = Likelihood ⨯ Severity**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | Severity | | | | |
|  |  | 1 | 2 | 3 | 4 | 5 |
| Likelihood | 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |

**Risk Classification Value**

|  |  |
| --- | --- |
|  | **1–5**: **Low**: Tolerable 🡪 monitor and manage |

|  |  |
| --- | --- |
|  | **6–8: Medium:** Review 🡪 introduce further controls to reduce to as low as reasonably practicable |

|  |  |
| --- | --- |
|  | **9–25: High:** Intolerable 🡪 do not commence work, further control measures required |