**RISK ASSESSMENT FORM – Cylinder movement**

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| **RISK ASSESSMENT DETAILS** | | | | | | | | **DEGREE OF RISK** | | | | **RISK RATING MATRIX** | | | | |
| |  |  | | --- | --- | | Faculty/School/Service | Earth and environment | | Team | Cohen labs |  |  |  | | --- | --- | | Risk Assessment Title | Cylinder movement and use | | Risk Assessment Log Reference |  | | Date | 11/5/2014 | | Name of Assessors | Andy Connelly | | Manager Responsible | Simon Bottrell | | Location | West wing Level 9 and level 8 | | Details of Activity  Moving and changing cylinders including changing and operating regulators | |   Other assessments which might also be required, ✓ if needed:  Manual Handling ✓ REF  COSHH ✓ REF  Personal Protective Equipment (PPE) REF  Noise REF  Other REF | | | | | | | | |  |  | | --- | --- | | **LIKELIHOOD (L)** | | | 5 | Inevitable | | 4 | Highly Likely | | 3 | Possible | | 2 | Unlikely | | 1 | Remote Possibility | | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  | **SEVERITY** | | | | | | **LIKELIHOOD** |  | 1 | 2 | 3 | 4 | 5 | | 1 | 1 | 2 | 3 | 4 | 5 | | 2 | 2 | 4 | 6 | 8 | 10 | | 3 | 3 | 6 | 9 | 12 | 15 | | 4 | 4 | 8 | 12 | 16 | 20 | | 5 | 5 | 10 | 15 | 20 | 25 | | | | | |
| |  |  | | --- | --- | | **SEVERITY (S)** | | | 5 | Very High -Multiple Deaths | | 4 | High - Death, serious injury, permanent disability | | 3 | Moderate - RIDDOR over 3 days | | 2 | Slight - First Aid treatment | | 1 | Nil - Very Minor | | | | | **PERSONS AT RISK** | | | | |
| |  | | --- | | PERSONS AT RISK | | Employees | | Students | | Clients | | Contractors | | Members of the public | | Work Experience students | | Other Persons | | | | | |
| |  |  | | --- | --- | | **REVIEW DATES** | | | 28/5/2011 |  | |  |  | |  |  | | | | | | | | | |  |  | | --- | --- | | RISK RATING SCORE | ACTION | | 1 - 4 | Broadly Acceptable - No action required | | 5 - 9 | Moderate - Reduce risks if reasonably practicable | | 10 -15 | High Risk - Priority Action to be undertaken | | **16 -25** | Unacceptable **-Action must be taken IMMEDIATELY** | | | | | | | | | |
| **HAZARD AND RELATED ACTIVITIES**  e.g. trip, falling objects, fire, explosion, noise, violence etc. | | **PERSONS**  **AT RISK**  e.g. Employees, Customers, Contractors, Members of the public | **POSSIBLE OUTCOME** | | **RISK RATING BEFORE CONTROLS (LxS)** | | **EXISTING CONTROLS**  e.g. Guards, Safe Systems of Work, Training, Instruction, Authorised Users, Competent Persons, Personal Protective Equipment (PPE) | | | **RISK RATING AFTER CURRENT CONTROLS (LxS)** | | | **FURTHER CONTROLS REQUIRED?** | | | **RISK RATING AFTER ADDITIONAL CONTROLS (LxS)** |
| Falling cylinder | | Employees, anyone encountered whilst moving cylinder | Possible severe injury, risk of broken bones | | 3(s)x4(s)=12 | | Moved only by trained  personnel only that have also been trained in manual handling. Cylinders only moved with the correct trolley. Size W and L can use any of the four cylinder trolleys. | | | 2(l)x4(s)=8 | | | PPE toe protection, gloves and chemical and impact resistant safety glasses must be worn | | |  |
| Explosion | | Employees, anyone within 200m radius | Possible serve injury and/or multiple deaths caused by explosion of cylinder | | 3(l)x5(s)=15 | | Moved only by trained  personnel only  that have also been trained in manual handling | | | 1(l)x5(s)=5 | | | PPE toe protection, gloves and chemical resistant safety glasses must be worn | | |  |
| Chemicals | | Employees, anyone encountered whilst moving cylinder | See COSHH prepared for each method | |  | |  | | |  | | |  | | |  |
| Trips and falls | | Employees, anyone encountered whilst moving cylinder | Possible serve injury, risk of broken bones | | 3(l)x4(s)=12 | | The route is recced and cylinder moved on trolley by trained personal see SOP | | | 2(l)x4(s)=8 | | |  | | |  |
| Inert gases | | Employees in same room as gas cylinders | Death | | 3(l)x5(s) =15 | | Cylinders are operated by trained personnel only following SOP. Also, gas calculations should be made before introducing a cylinder into a lab and oxygen monitors used where there is a potential problem. | | | 2(l)x5(s) =10 | | |  | | |  |
| Toxic gases | | Employees in same room as gas cylinders | Death | | 3(l)x5(s) =15 | | Cylinders are operated by trained personnel only following SOP. Also, gas calculations should be made before introducing a cylinder into a lab and monitors or vented cupboards used where appropriate | | | 2(l)x5(s) =10 | | |  | | |  |
| Oxidant and flammable gases | | Employees in same room as gas cylinders | Death | | 3(l)x5(s) =15 | | Cylinders are operated by trained personnel only following SOP. Also, vented cupboards used where appropriate | | | 2(l)x5(s) =10 | | |  | | |  |
| Experiment specific hazards | | Before handling gas cylinders users must carry out Risk and COSHH assessments to identify issues with their own experiments. Any lab users at risk from the experiment must be informed. | | | | | | | | | | | | | | |
| **MANAGEMENT AGREED**  **ADDITIONAL CONTROL MEASURES REQUIRED** | | | | **ACTIONED BY** | | | | | | | **ACTION COMPLETE** | | | | | |
| **POSITION** | | **NAME** | | | **DATE** | | **MANAGER SIG** | | | | **DATE** | |
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| **COMMUNICATION OF RISK ASSESSMENT FINDINGS TO STAFF** | | | | |
| **REFERENCE OF FORMAL COMMUNICATION TO STAFF** | **METHOD** | **YES** | **DATE** | **COMMENTS** |
| Copy of risk assessment issued to staff |  |  |  |
| Controls covered in team procedure issued to staff |  |  |  |
| Staff Handbook issued to staff |  |  |  |
| Other - |  |  |  |
| **ADDITIONAL METHODS OF COMMUNICATION** | Induction |  |  |  |
| Toolbox Talk |  |  |  |
| Team Meeting |  |  |  |
| E-mail circulation |  |  |  |
| Other - |  |  |  |

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| **COMMENTS AND INFORMATION**  (Use this section to record any dynamic risk assessment comments and information) |
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| **Do additional controls adequately lower high risk activities to an acceptable level?** | **YES**  If NO explain in comments box above | **SIGNATURE OF MANAGER**  "The risks identified in this assessment are controlled so far as is reasonably practicable" | |
| Signature: | Date:11/6/09 |

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| **DATE OF REASSESSMENT**  (Every two years minimum) | **ARE THERE ANY CHANGES TO THE ACTIVITY SINCE THE LAST ASSESSMENT?** | **SIGNATURE OF MANAGER** |
| 11/6/2011 |  |  |
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| **LOCATION OF CURRENT SIGNED RISK ASSESSMENT** |  |

**RISK ASSESSMENT LOG – West wing Extractions Lab 9.133**

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| RISK ASSESSMENT LOG | | | | | | | | | | | |
| Directorate: | | | | | | Area:West west extraction lab 9.133 | | | | | |
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| Section/Team | Risk Assessment Title | Version No. | Risk Assessment Category | Code  /Location | Risk Assessor | Manager responsible for signing off risk assessment | Date assessment signed off | Review Due | Review Date | Outstanding Controls/Actions  Yes/No | Comments |
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