|  |
| --- |
|  |
|  |
| **CAL-HS-PD-0806** |
| **Exposure to Gases Vapours and Fumes** |
|  |
|  |
|  |
| Issue Number: 01 |
|  |

|  |  |  |  |
| --- | --- | --- | --- |
| Document Control | | | |
| Status: | Live | Date: |  |

|  |  |  |
| --- | --- | --- |
| Approval / Acceptance | | |
|  | Author | Approved |
| Title: | Director | Director |
| Company: | M2 Safety Consultants Ltd |  |
| Name: | Fraser Morrison |  |
| Signature: |  |  |
| Date: |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Revision History | | | | | |
| This document should be reviewed at least every 12 months to maintain its effectiveness.  Record the details of any changes made as a result of these reviews in the table below: | | | | | |
| Rev: | Date: | Reason for Review: | Nature of Changes: | Prepared by: | Checked by: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

###### Contents

[1.0 INTRODUCTION 1](#_Toc181035581)

[2.0 SCOPE: 1](#_Toc181035582)

[3.0 APPLICATION 1](#_Toc181035583)

[4.0 CONTROL MEASURES 2](#_Toc181035584)

[4.1 Elimination or substitution: 2](#_Toc181035585)

[4.2 Engineering Controls: 2](#_Toc181035586)

[4.3 PPE: 2](#_Toc181035587)

[5.0 INFORMATION AND INSTRUCTION 2](#_Toc181035588)

[6.0 MONITORING 2](#_Toc181035589)

[7.0 HEALTH SURVEILLANCE 3](#_Toc181035590)

[8.0 FURTHER READING 3](#_Toc181035591)

###### 

# INTRODUCTION

1. This procedure supports ’s overall Health and Safety Policy, which is to ensure, so far as is reasonably practicable, the health, safety and welfare of our employees while they are at work, and of others who may be affected by their work.
2. As employers we recognise the risks of respiratory disease to people, that carry out welding and cutting. They have been identified as being an "at risk" group for occupational diseases arising from the exposure to gases, vapours and fumes. The constituents of the fumes have a range of toxicities that, under the right conditions, can affect many parts of the body adversely. The main identified health effects are pneumonia, asthma, chronic obstructive pulmonary disease (COPD), lung cancer and metal fume fever (MFF) and lung function changes and/or development of cancer.
3. Gas metal arc welding (GMAW) of stainless steel results in the production of a respirable fume containing chromium and nickel compounds including hexavalent chromium, Cr(VI), a suspected carcinogen. In addition, the toxic gas ozone is generated by the action of UV light from the arc on oxygen.

# SCOPE:

1. Ultimate responsibility for all matters relating to health and safety rests with the Managing Director.
2. To secure good standards of health and safety management, actions have been delegated to Managers and Supervisors. The Policy requires all who have designated responsibility for managing health and safety to ensure that the arrangements described in this document are implemented effectively, and regularly reviewed and monitored.
3. Employees have a duty to co-operate with the company in controlling risks. All employees, and others who may be affected by risks of respiratory disease, should be made aware of the arrangements to protect them and what they need to do.

# **APPLICATION**

1. is required under the Management of Health and Safety at Work Regulations 1999 (as amended) to make, and effectively implement, arrangements to manage risks to health. The Control of Substances Hazardous to Health Regulations 2002 (COSHH), (as amended) contain specific requirements to identify, assess and control the risk from substances that may give rise to ill health, which as a last resort means providing personal protective equipment (PPE).

# CONTROL MEASURES

1. The Managing Director recognises the importance of implementing a range of control measures to reduce the risk of respiratory disease:

## **Elimination or substitution**:

1. Tasks that give rise to a significant risk of respiratory disease will be assessed, and where it is reasonably practicable, will eliminate the task or the use of hazardous substances or will adopt new or modified methods of work to reduce exposure.
2. will ensure that nominated staff have the necessary skills, knowledge, experience and training to carry out risk assessments (by a specified date), which will allow informed decisions to be made on the use of alternative products and/or procedures.

## Engineering Controls:

1. Where elimination is not possible, automation, containment or engineering controls such as local exhaust ventilation and/or water suppression will be considered.

## PPE:

1. PPE will be the last resort in the hierarchy of control measures, it may however, be used in conjunction with LEV.

# INFORMATION AND INSTRUCTION

1. All employees working with or exposed as a third party to substances that may cause respiratory disease will be provided with information and instruction about the health hazards and appropriate control measures need to reduce the risk to its lowest practicable level.
2. The need for refresher training will be reviewed at least annually, and update training provided as necessary.
3. Personal protective equipment: Where identified in the risk assessment, suitable PPE will be provided together with proper storage. Use, supervision and maintenance will be part of the training programme.

# MONITORING

1. Compliance with this policy will be monitored by line managers during routine inspections.

# HEALTH SURVEILLANCE

1. Health surveillance will be provided for employees who after a risk assessment are deemed as being at risk of developing respiratory ill health from their work activities or the work activities of others that may affect their health.
2. Health surveillance will be used as means of determining whether or not the control measures in place are adequate.

# FURTHER READING

1. OC 668/29 Information document to - Control of fume arising from electric arc welding of stainless steels.

<http://www.hse.gov.uk/foi/internalops/ocs/600-699/668_29/668_29id.htm>

1. Welding fume - Reducing the risk

<http://www.hse.gov.uk/welding/fume-welding.htm>

1. Fume facts - What is it and what does it do to you

<http://www.hse.gov.uk/welding/fume-facts.htm>

1. HSE Local Exhaust Ventilation (LEV) workplace fume and dust extraction <http://www.hse.gov.uk/lev/index.htm>
2. OC 668/30 Information document - Oxy-fuel gas cutting: Control of fume, gases and noise <http://www.hse.gov.uk/foi/internalops/ocs/600-699/668_30/668_30id.htm>
3. Control of Exposure to Hexavalent Chromium and Ozone in Gas Metal Arc Welding of Stainless Steels by Use of a Secondary Shield Gas <https://academic.oup.com/annweh/article/46/1/43/222877>

|  |
| --- |
| Logo  Description automatically generated |
| M2 Safety Consultants Ltd |
|  |
|  |
|  |
|  |