

Managing the risk from welding fumes

Issued to: **All Network Rail Line Managers, Safety Professionals and Welding Team Leaders**

Ref: NRL19-05

Date of issue: 14/03/2019

Location: National

Contact: Dr Richard Peters Chief Medical Officer; Bob Cox Principal Engineer Welding & Grinding; Bill Cooke Head of Corporate Workforce Safety



Overview

In February 2019, the Health & Safety Executive (HSE) published a Safety Alert STSU1-2019 which highlighted a change in enforcement expectations for mild steel welding fume.

Control of the risk of exposure will require suitable engineering controls for all welding activities undertaken indoors, e.g. Local Exhaust Ventilation (LEV).

There is a change in HSE enforcement expectations in relation to the control of exposure of all welding fumes, including that from mild steel welding.

Extraction will also control exposure levels to manganese, present in mild steel welding fume, which can cause neurological effects similar to Parkinson's disease.

Underlying causes

HSE's Workplace Health Expert Committee has endorsed the reclassification of mild steel welding fume as a human carcinogen.

There is new scientific evidence that uncontrolled exposure to all welding fume, including mild steel welding fume, can cause Lung cancer in humans, in some cases.

There is also limited evidence linked to kidney cancer.

Key message

All businesses units undertaking welding activities should ensure effective engineering controls are provided and correctly used to control fume arising from those welding activities, irrelevant of task duration. This includes welding outdoors.

LEV must be thoroughly inspected and tested at least every 14 months by a competent person.

All risk assessments should be reviewed, updated and reissued following the new HSE guidance.

Where engineering controls are not adequate to control all fume exposure, adequate and suitable Respiratory Protective Equipment (RPE) is also required. RPE must be correctly fitted and maintained to control the risk from the residual fume.

RPE is available from the Personal Protective Equipment (PPE) catalogue. It is important to select RPE that is suitable for the task and properly fits each user.

Ensure plans are in place so that any employee at risk can receive the required health surveillance.