

Policy Document

Air Quality



Introduction

ASLEF recognises the health concerns arising from poor air quality as being an issue for every person living in the UK. Much of this problem is a direct result of the way we produce and consume energy alongside the vehicles we use on road, rail and air.

Current UK railway operations contribute considerably to this problem. Yet there is much that can be done within our industry to reduce or minimise the impact both in the immediate workplace and the wider national environment.

Research carried out by the government's watchdog, the Health and Safety Executive (HSE), has identified that workers are increasingly being exposed to invisible hazards such as diesel fumes, nitrogen dioxide, carbon dioxide, particulate matter (e.g. metallic or brake dust), mould spores and air borne bacteria. Exposure to these contaminants can result in ill health conditions which affect the eyes, skin and lungs. Conditions such as asthma, allergies, Legionnaire's disease and various forms of cancer may also develop. This list is not exhaustive.

The purpose of this air quality policy is to give guidance to both Health and Safety Representatives and ASLEF members on how to ensure their employers' take steps to establish, monitor and improve steps to ensure a healthy working environment.

Aim

To ensure employers within the industry prevent or minimise members' exposure to airborne substances that are hazardous to health which are encountered in the course of their work. Namely reducing exposure to vehicle fumes and particulates, other airborne substances and matter (e.g. brake dust, skin dust etc.), and airborne bacteria and germs (e.g. Legionella).

ASLEF recognises that improvements in the rail industry have the potential to contribute positively to the wider air quality issues recognised as existing throughout the country.

Scope

This policy applies to all ASLEF representatives and members working within enclosed, partially enclosed and open sections of the railway and whilst driving on the road.

Policy

ASLEF's existing policies on air quality are:

- Electrification of the railways, which will remove diesel use.
- More freight on rail, which will reduce road vehicle pollution and congestion.
- Reducing diesel unit idling, which will particularly reduce diesel exhaust pollution at stations and their environs.
- Reducing the use of road vehicles within the industry.
- Clean cabs and ventilation/air conditioning units.
- Air quality monitors in train cabs.

Get active!

Members are encouraged to report problems to their employer and health and safety representatives who should use their rights (see below) to investigate and try to resolve problems. If a matter remains unresolved, or is of a very serious nature, reps and members should consider using the machinery of negotiation to escalate the matter.

Because of the fractured nature of the privatised rail industry many issues cross employer boundaries in that you may work for a TOC or FOC but the problem stems from a work issue under the control of Network Rail or another rail employer. This should not deter members and reps from raising issues with their employer who should then raise the matter with the body with responsibility for acting. This is underlined in law in the Management of Health and Safety at Work Regulations.

What's the problem?

When someone breathes, that air goes deep into the lung and if there are any unwanted impurities in that air such as dust, airborne chemicals or gasses then these can be transported there too.

The skin in the alveoli deep in the lung is very thin as it's where the oxygen and carbon dioxide are passed into and out of the body's blood stream. Pollutants getting into the alveoli can cross from being outside the body to inside in the blood stream with the potential for short or long-term health problems, some fatal.

The body has a natural filter system for dust which filters out dust from the nose through the windpipe (trachea) to the bronchi (one tube for each lung) and to the alveoli, known as the mucociliary escalator. Effectively, dust is trapped in mucous which is transported up the bronchi and windpipe for expectoration or forms as clumps of dried mucous (boogies) in the nose. The nose filters the largest particles and those collected get smaller in size the deeper into the lung the air travels.

Exposure to dust can affect the mucociliary escalator's performance and leave those exposed open to a greater likelihood of developing colds etc.

Some dusts such as asbestos, silica and dust arising from diesel combustion are known to cause cancer of the lung and are present in sizes so small as to pass deep into the lung to the alveoli. There is no scientific standard that can be said to be safe for exposure to cancer causing agents and the risk increases with longer or greater exposures.

Exposure to some dusts can lead to allergic reactions and skin problems.

What can be done?

Clearly, preventing all exposure to unwanted chemicals, dusts and gasses is the ideal, but the problem is so vast that that this is unlikely to be achieved until societal changes are made. Until then a useful tool is the Control of Substances Hazardous to Health Regulations (COSHH) which require employers to assess the risk of substance exposure to their employees and act to change a process or prevent exposure by other means.

COSHH sets in law the principal of the "hierarchy of controls" (see illustration later in this document) which states that if there is a problem then firstly try and attack it at source by changing the process or put in engineering controls etc. and to only provide personal protective equipment (PPE) such as breathing masks as a last resort after all other options have been considered.

Air filters

Air filters work by either being a barrier to dust or chemical or by reacting with a substance chemically to stop its progress. However, filters are specialist and must be chosen to suit the job they are expected to do. A general dust filter is unlikely to have any effect on an airborne chemical or gas, or a chemical filter on a dust. And general dust filters are unlikely to filter out very small particulate dust. Reps should check their employer understands this and the right filters protecting against the hazards present are being used. (The same goes for face masks protecting against the same hazards).

The best standard filter is known as an H or Hepa filter and these act as a barrier to almost all dusts, usually 99.95% but some filter even further.

No filter will protect against a bacteria or virus.

Filters should be cleaned or replaced on a regular basis. Effective cleaning can be achieved with soapy water containing a small amount of bleach followed by drying. This will clean and disinfect and not leave a residual effect of having a hazardous substance on the filter being made airborne when the air moving equipment containing the filter is turned on.

Specialist investigation

The measurement of air pollutants such as chemicals, gasses and dusts is a specialist job. If reps feel there is a problem which needs investigation it is within their rights to request their employer hires such a UKAS accredited specialist to investigate and their employer should consult the reps on who they employ and the methodology of the investigation.

Safe standards?

Any specialist investigation will report on levels of dust, chemicals or gasses found and will compare them to the government's Workplace Exposure Limits (WELs). These should be treated with caution as WELs have often been set to standards industry can achieve as opposed to a health based standard, and as previously mentioned, there is no lower, safe exposure standard for carcinogens. Plus, WELs tend to be treated as the target to be reached rather than a maximum exposure standard. As a rule, reps should require WELs to be met as a minimum and for exposure to be reduced as far as reasonably practicable below the WEL.

Driving Cabs

Health and Safety Representatives should ensure their employer addresses the issue of cab cleanliness, regular cleaning and changing of air filters, and the fit of windows and doors to improve the air quality in the driving cabs. There should also be regular maintenance and cleaning of cab air conditioning systems (where fitted), particularly if water based ventilation systems are used and there is a risk of Legionella developing. Consideration must be given when selecting appropriate disinfectant products which are safe and healthy, especially any that may become airborne after cleaning when equipment is put back into operation. Air monitors in cabs can be beneficial but may not be capable or suitable for measuring the full array of contaminants people are exposed to in the driving cabs.

This policy supports using ASLEF's SQUASH campaign guidance to also assist members in improving cab conditions. Details of the SQUASH campaign can be found on the ASLEF web site here:

http://www.aslef.org.uk/article.php?group_id=5950

Depots and Messrooms

Employers are required by law to ensure workplaces are kept clean and that any temperature or ventilation system in place is clean and presents no threat to health. All of these things can directly impact on air quality. Employers are required to meet the standards set out in The Workplace Health, Safety and Welfare Regulations 1992 which includes a sufficient quantity of fresh or purified air. There is also a risk of Legionella growing in places where water can pool for long periods such as shower heads and the bacteria then becomes airborne and respirable when used.

Stations, Sidings and Tunnels

Reps should encourage employers to adopt and enact idling reduction policies to reduce the amount of diesel used and contaminants produced. Places where pollution from idling is recognised as a problem should be identified and action taken.

In spaces where there are forced air movement systems, such as Birmingham New St Station, these should be properly maintained and used.

Employers should ensure tunnels are cleaned, however many have the added risk of disturbing asbestos and other dusts during cleaning and which are very hazardous.

These circumstances are also likely to cross two or more employers' responsibility so co-operation is required. This type of cleaning should therefore be treated as specialist with full training and protection for cleaning staff and anyone who may have to access those areas where the hazard exists.

Tunnel cleaning machines are generally bespoke for the job to be done. They need to have the capacity to clean all of the likely hazards in all expected sites in a manner that puts no-one at risk.

Road Vehicle Use

ASLEF encourages reducing the number of road vehicle journeys drivers' must take in the course of their duties. Travelling via rail where possible will reduce the contribution to overall air pollution nationwide.

This policy also supports ASLEF's Freight on Rail campaign, encouraging less congestion on the roads. More details on the campaign can be found on the ASLEF web site here: http://www.aslef.org.uk/article.php?group_id=3876

Reps - Use Your Rights

Health and Safety Representatives have more rights in law than any other union rep. These rights come from The Safety Representatives and Safety Committee Regulations (SRSC) 1977. Furthermore, the Management of Health and Safety at Work Regulations require employers consult Health and Safety Representatives "in good time" on all health, safety and welfare matters that might affect their members. ASLEF Health and Safety Representatives' rights are underlined by our collective bargaining agreements with employers in the rail industry.

Employers are legally required to manage their work in a safe and healthy manner and the process which they are required to use is risk assessment. Put simply, risk assessment is a process of identifying all workplace hazards likely to be met, checking to see if current protections are adequate and, improving them if they aren't. Employers are legally required to consult health and safety representatives on any risk assessment. This process is legally required to be recorded by the employer. Also, risk assessments are legally required to be "suitable and sufficient" and if any rep or member feels a risk assessment does not meet that standard then it should be challenged – through the machinery if necessary. Further employer legal duties are listed at the end of this policy document.

The key rights of a Health and Safety Representative are as follows:

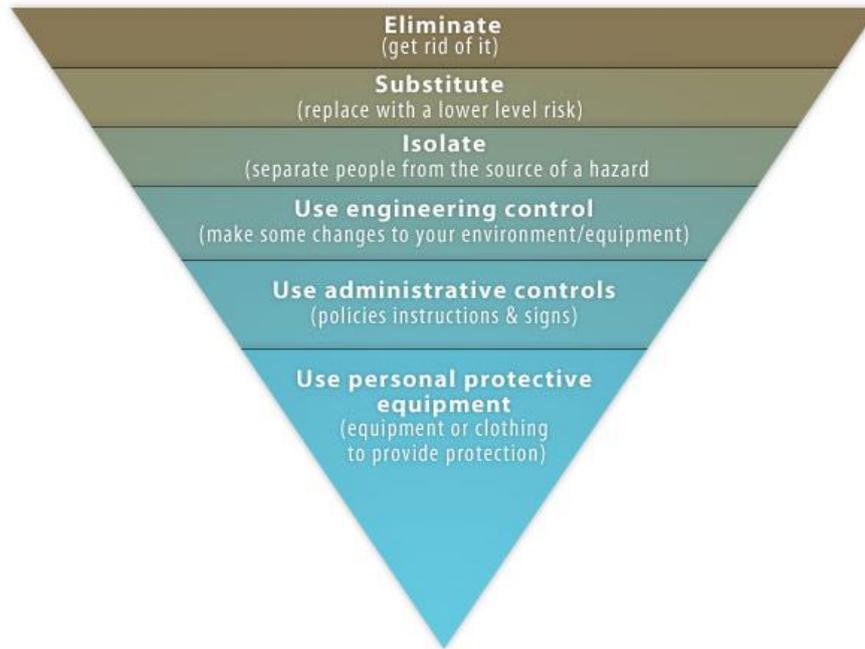
- The right to inspect any workplace area that your members may use/enter.
- The right to investigate accidents at work and dangerous occurrences or near misses.
- The right to inspect documentation and request provision of any information relating to health, safety and welfare of members.
- The right to be consulted on the planning and organisation of any health and safety training of your members.
- The right to be consulted on new technologies being introduced to the workplace.
- The right to facilities to carry out your role – e.g. computer, phone, private office to speak confidentially with members.
- The right to paid release to carry out reasonable Health and Safety training and your duties as a Health and Safety Representative.

If a member or Health and Safety Representative has a health and safety concern they are within their rights to ask their employer to see any risk assessment. If the employer hasn't done a risk assessment, then Health and safety Reps should request management carry one out with Health and Safety Representative consultation and input. This is an effective way of assessing whether control measures are "suitable and sufficient".

If members believe they are suffering from poor health due to poor air quality exposure in their working environment, they should make their local Health and Safety Representative and employer aware, make an entry in the accident/incident book and request prompt referral to occupational health via their employer. Upon receiving such reports, Health and Safety Representatives should request an immediate review of the employers' risk assessment for air quality.

Reps should encourage members to use their employer's incident and accident reporting system and have their employer report the details including related sickness cases for discussion at quarterly safety committee meetings and Company Council meetings where appropriate. Reps should also use these meeting to review the protections already in place to ensure they are actually done and adequate in protecting health.

Health and Safety Representatives should use the guidance below to introduce or improve upon appropriate control measures within their respective workplaces. This is known as the hierarchy of controls which says employers should first try and eliminate any problem, then substitute a safer way of working down to the provision of personal protective equipment (PPE) which should always be the last choice – not the first.



Schedule 1 of the Management of Health and Safety at Work Regulations 1999

Provisional Improvement Notices (PINs)

ASLEF has adopted the use of Provisional Improvement Notices (PIN's) which can be accessed from the ASLEF web site. They are a formal way of raising issues and have the capacity for timescales to be used where appropriate when seeking action; for example, management failing to respond or action requests within a reasonable timescale.

Risk map

Risk mapping is a method that reps can use to find out where problem areas are in the workplace by getting members together, identifying where issues arise in the workplace and agreeing with members which issues need to be taken to management. Body mapping works in a similar way but is about the effect work has on each individual and trying to find common issues that need attention.

Air quality partnership

Establishing an Air Quality Partnership with management within each company to specifically focus on air quality issues is desirable, however it is not compulsory and lacks any direct legal requirement.

Remember – use the machinery

Members are recommended to raise their concerns initially with their employer and Health and Safety Representative who can then raise it at any Safety Committee or existing health and safety meeting structure currently established between ASLEF and their employer.

It is ASLEF good practice to escalate through the approved union machinery if members are unable to resolve issues at a local level.

Reviewing Progress

ASLEF's Executive Committee will supply an annual report from each district regarding their successes or challenges of addressing air quality issues with each employer, so that a unified strategy can be developed.

Employers' Duties

Under Section 2 of the Health and Safety at Work etc Act (1974), an employer has a duty to provide, so far as is reasonably practicable, the following:

- The provision and maintenance of plant and systems of work that are, so far as is reasonably practicable, safe and without risks to health;
 - Arrangements for ensuring, so far as is reasonably practicable, safety and absence of risks to health in connection with the use, handling, storage and transport of articles and substances;
 - The provision of such information, instruction, training and supervision as is necessary to ensure, so far as is reasonably practicable, the health and safety at work of his employees;
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- So far as is reasonably practicable as regards any place of work under the employer's control, the maintenance of it in a condition that is safe and without risks to health and the provision and maintenance of means of access to and egress from it that are safe and without such risks;
- The provision and maintenance of a working environment for his employees that is, so far as is reasonably practicable, safe, without risks to health, and adequate as regards facilities and arrangements for their welfare at work.

The Management of Health and Safety at Work Regulations (1999) require every employer to carry out a suitable and sufficient risk assessment of the risks members will be exposed to in the workplace.

Employers are also required to inform their employees of the hazards likely to be experienced at work and the controls put in place to prevent harm or ill-health. Employers should encourage their employees to report any issues arising from any protection the employee feels is not achieving what it should. These should include safe operation and maintenance issues.

References

Air Quality Issues	Reference & Guidance Documents
Driving Cab Environment	TUC Risk Assessment Guide https://www.tuc.org.uk/sites/default/files/extras/riskassessment.pdf The Provision and Use of Work Equipment Regulations 1998 Control of Substances Hazardous to Health Regulations 2002 The Management of Health and Safety at Work Regulations 1999 Legionnaire's Disease. The Control of Legionella Bacteria in Water Systems Approved Code of Practice (L8) ASLEF SQUASH Campaign http://www.aslef.org.uk/article.php?group_id=5950 Hazards Magazine http://www.hazards.org/index.htm
Stations, Sidings, Yards and Tunnels	Control of Diesel Engine Exhaust Emissions in the Workplace Guidance (HSG187) ORR Occupational Cancer Guidance http://orr.gov.uk/rail/health-and-safety/occupational-health/topic-specific-guidance/occupational-cancers ASLEF Freight on Rail Campaign http://www.aslef.org.uk/article.php?group_id=3876 Green Alliance http://green-alliance.org.uk/ Control of Substances Hazardous to Health Regulations 2002 The Management of Health and Safety at Work Regulations 1999
Depots and Messrooms	Workplace (Health, Safety and Welfare) Regulations 1992 Approved Code of Practice (ACOP) Control of Substances Hazardous to Health Regulations 2002 The Management of Health and Safety at Work Regulations 1999 Legionnaire's Disease. The Control of Legionella Bacteria in Water Systems Approved Code of Practice (L8)

Risk mapping and body mapping:

<http://www.hazards.org/diyresearch/>

Environmental Protection (formerly the National Society for Clean Air (NSCA)):

<http://www.environmental-protection.org.uk/>