

Asbestos Exposure

Exposure to asbestos fibres causes mesothelioma, lung cancer and asbestosis, all of which can be fatal. Worst of all, it's not instant and you won't see it coming, these diseases may not develop for ten to fifty years.



- Asbestos still kills around 5000 workers each year, this is more than the number of people killed on the road.
- Around 20 tradesman die each week as a result of past exposure
- Asbestos is not just a problem of the past. It can be present today in any building built or refurbished before the year 2000.

Purpose of this guide

Who is this for?

This guide has been created to assist anyone who may disturb Asbestos Containing Materials (ACMs) when working on our infrastructure. It will also assist responsible managers and those who control site safety and access, by showing where ACMs are likely to be.

SISS Assets have been identified as potentially **High risk**

Safety, Technical and Engineering (STE) has completed an assessment of all our assets and identified SISS assets as potentially high risk. Lots of information was used to complete the assessment, including; previous survey information, location, asbestos type, accessibility etc.

This guide highlights the most significant risks, but there may be others

This guide provides a list of locations where we believe ACMs might exist, but there may be others. You should always assume that an asset will contain asbestos unless it has been inspected/surveyed and recorded on Network Rail's Asbestos Risk Management System (ARMS).

This guide must not be used in place of an asbestos survey.

Asset Information

SISS batteries, lead-acid (open/sealed/other) can contain asbestos containing materials (ACMs) made out of varying asbestos product types including loose asbestos. Asbestos is known to have been used in a number of battery types and sizes, and was used in battery production all around the world. Although asbestos is banned in most the UK since 1999, batteries – varying in types and sizes and imported from other countries where asbestos has not been banned – might still contain asbestos.

SISS PAVA link to fire alarm panel can contain a variety of asbestos containing materials (ACMs) made of varying product types including composite materials, textiles, gaskets, ropes asbestos paper and felt.

SISS PSU can contain a variety of asbestos containing materials (ACMs) made from varying product types including

SISS rectifier / chargers can be found within stations and equipment rooms, they can contain a variety of asbestos containing materials (ACMs) made from varying product types including reinforced composites, insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt.

Some of the asbestos locations to SISS products are:

- Raw asbestos used as thermal insulation inside the battery casings
- Added in manufacturing of the battery casings themselves
- Commonly batteries can be found on shelving which is either asbestos insulating board or cement
- Paper lining (SISS PAVA)
- Textiles (SISS PAVA)
- Bitumen(SISS PAVA)

SISS Batteries (Open, Sealed, Other) can be found in rooms which can be occupied daily, sitting on cement or asbestos insulating board shelves. These boards can be quite easily damaged by the installation and removal of the batteries stored on them. Boards are often found with damage at the edges from where they were cut before installation, they can also have screw holes and dents/chips within the boards. In most cases the shelving is not encapsulated or sealed. The ACMs to the batteries are unlikely to be disturbed but asbestos shelving can be easily disturbed especially by maintenance activities.

SISS PAVA link to fire alarm control panels can be found in a variety of different locations, most commonly in rooms that may be occupied on a daily basis. ACMs may be occasionally disturbed by the occupants. Maintenance activities are expected to cause minor disturbance to any ACMs present (e.g. possibility of contact when gaining access.)

SISS rectifiers / chargers / PSUs are typically within rooms that are occupied on a daily basis. The ACMs are easily disturbed. Maintenance is likely to cause a minor disturbance of the ACMs present (e.g. possibility of contact when gaining access).

If any suspected asbestos elements could be disturbed or are damaged it should be reported to the duty holder (NR/TOC/FOC/DFO or other) who will determine what action is required.

Maintenance

There are various types of maintenance tasks that are undertaken that may interact with the asbestos materials in batteries, lead acid (sealed). Maintenance task on lead acid vented batteries is carried out on a monthly basis, and includes visually checking that the condition of the battery cabinet or stand is good and able to safely support the weight of the batteries and checking that the cable connections onto and between each cell are tight.

Routine maintenance of the SISS PAVA link to fire alarm systems may cause disturbance of ACMs present. Maintenance on this is carried out 3 monthly and includes visually check to confirm that all cable fittings and equipment

Example Photos



Casing



Casing



Battery String, Lead-Acid (Sealed)



Shelving

Work with Asbestos

There are three types of work with asbestos:

1. Non-Licensed Works - Work with asbestos that does not require a licence from the HSE. Further information on non-licensed works can be found at <http://www.hse.gov.uk/asbestos/licensing/non-licensed-work.htm>

2. Notifiable Non-Licensed Works (NNLW) - Work with asbestos that does not require a licence from the HSE but is required to be notified to the appropriate enforcing authority (HSE/ORR). Further information on NNLW can be found at <http://www.hse.gov.uk/asbestos/licensing/notifiable-non-licensed-work.htm>

3. Licensed works - Work with asbestos that requires the contractor to hold a license from the HSE and usually requires notification to the appropriate enforcing authority (HSE) 14 days prior to the work starting. Further information on licensed works can be found at <http://www.hse.gov.uk/asbestos/licensing/licensed-contractor.htm>

There are some tasks Network Rail Operatives undertake which bring them into contact with asbestos. Most maintenance tasks deemed as work with asbestos will not be licensed works. With the correct level of information, instruction and training, and if the works are deemed as **Non-Licensed Works** or **Notifiable Non-Licensed Works (NNLW)**, Network Rail Operatives can undertake these tasks. Network Rail Operatives must never undertake **Licensed Works** – a Licensed Asbestos Removal Contractor (LARC) must be used.

There is a guide on the HSE website to assist in deciding if the work requires an HSE-Licensed asbestos contractor <http://www.hse.gov.uk/asbestos/managing/flashtools/isitlicenced.htm>
If the work falls under notifiable non-licensed work the notification form can be found at <https://extranet.hse.gov.uk/lfservlet/external/asbnnlw1>

Asbestos Guide

SISS Assets (SISS PAVA link to fire alarm panel, SISS Battery, SISS PSU & SISS Rectifier / Charger)

Work with Asbestos continued

Some examples of maintenance work which **does not usually require a licence from the HSE** are listed below:

- Maintenance work on asbestos cement products or other materials containing asbestos (such as paints, bitumen, resins, rubber, etc.) where the fibres are bound in a matrix which prevents most of them being released.
- Removal and replacement of batteries to asbestos shelving
- Small, short duration maintenance tasks where the control limits will not be exceeded
- Encapsulation and sealing-in work on ACMs that are in good condition
- Maintenance work involving asbestos gaskets and asbestos rope seals
- Brushing, scraping, dusting, cleaning, wiping or any other activity which could release asbestos fibres into the atmosphere.

Some examples of maintenance work which **requires a license from the HSE** are listed below:

- Maintenance works that requires the removal or disturbance of pipe lagging
- Work on asbestos insulating board, where the risk assessment indicates that it will not be of short duration.

If there is asbestos dust/debris present works may need to be completed by a Licensed Asbestos Removal Contractor.

All non-licensed and notifiable non-licensed work with asbestos requires:

- Risk Assessment <http://www.hse.gov.uk/asbestos/risk-assessments.htm>
- Appropriate Controls <http://www.hse.gov.uk/asbestos/essentials/index.htm>
- Information, Instruction & Training <http://www.hse.gov.uk/asbestos/training.htm>
 - Asbestos awareness training (NR training catalogue course code S&SD/OH&S/AM RME)
 - Task-specific information, instruction & training (Cat B Training industry standard, delivered by NR approved framework asbestos contractor)

In summary - for all work with asbestos, staff will require adequate PPE (including a face fit test), training, appropriate equipment and medical surveillance (for>NNLW)). Records must be kept in relation to works completed including exposure and health records. Arrangements need to be made for the disposal of asbestos waste including storage location, waste carriers license and waste consignment notices. Without all of the above in place, staff must not start work on asbestos. If in doubt, do not start work.

Asbestos Guide

SISS Assets (SISS PAVA link to fire alarm panel, SISS Battery, SISS PSU & SISS Rectifier / Charger)

Further Information

| Document Reference | Document Title |
|-----------------------|--|
| NR/L2/CIV/168 | Asbestos Management |
| NR/L2/OHS/157 | Health surveillance for silica and asbestos and the management of diagnosed occupational respiratory conditions. |
| Number Route Specific | Operational Route Asbestos Management Plan (ORAMP) / Property Asbestos Management Plan (PAMP) |
| Number Site Specific | Site Specific Asbestos Management Plan (SSAMP) |
| SI No.632 | Control of Asbestos Regulations 2012 |
| L143 | Managing and Working with Asbestos. Control of Asbestos Regulations |
| HSG210 | Asbestos Essentials (including task sheets for Equipment and method sheets EM1-EM10 and work with asbestos A1-A37) |
| HSG 264 | Asbestos: The Survey Guide |
| HSG 248 | The Analysts Guide |
| HSG247 | The Licensed Contractors' Guide |
| GE/RT8047 | Reporting of Safety Related Information |
| INDG453 | The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations |
| RIS-8047-TOM | Accident and Incident Reporting and Investigation |
| NR/L2/OHS/00103 | Specialist Risk Assessment - COSHH |
| NR/L2/OHS/00112 | Worksafe Procedure |
| NR/L2/OHS/00124 | Competence specific medical fitness requirements and supplier requirements for medical assessments |
| NR/L2/OHS/0047 | Application of the Common Safety Method for Risk Evaluation and Assessment |
| NR/L2/RSE/100/02 | Application of the Common Safety Method for Risk Evaluation and Assessment |
| NR/L3/INV/3001 | Reporting and Investigation Manual |
| NR/L3/INV/3001/RIM101 | Reporting of accidents, incidents and occupational ill health |
| NR/L3/INV/3001/RIM113 | Statutory reporting of accidents, incidents and occupational ill health |
| NR/SP/OHS/00102 | Work Activity Risk Assessment |
| NR2072P | Preliminary report investigation form |