

## Fire and Rescue Service Operational Guidance

# GRAs

generic risk assessments

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### **GRA 5.9**

Incidents involving asbestos  
containing materials (ACMs)

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# **Generic Risk Assessment 5.9**

Incidents involving asbestos  
containing materials (ACMs)

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## SECTION 1

# GRA 5.9 Incidents involving asbestos containing materials (ACMs)

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## Scope

This generic risk assessment (GRA) examines the hazards, risks and control measures relating to Fire and Rescue Service (FRS) personnel, the personnel of other agencies and members of the public at incidents involving asbestos containing materials (ACMs).

Depending on the nature and scale of the operational incident a variety of significant hazards may be present. FRS may therefore need to consider the contents of other specific GRAs in this series. The GRA should therefore be considered in conjunction with all other relevant GRAs.

Details of more documents that contain technical and supporting information can be found in the Technical Reference section

FRSs must conduct their own assessments and produce their own Safe Systems of Work (which includes Standard Operating Procedures [SOPs], training programmes, provision of equipment, levels of response etc.) within the context of Integrated Risk Management Plans, local conditions, knowledge and existing organisational arrangements.

## Significant hazards and risks

Asbestos is the generic name given to the fibrous forms of naturally occurring silicate minerals that have been used in commercial products (mainly in the construction industry) due to their high tensile strength, flexibility, low electrical conductivity, and resistance to heat and chemicals.

The three main types of asbestos are:

- Crocidolite (blue)
- Amosite (brown)
- Chrysotile (white)

However, it is not possible to differentiate between them by their colour as all are 'a dirty white'.

## **Health**

ACMs in good condition and left undisturbed cannot cause ill health. Therefore handling or touching ACMs is not a risk unless in doing so the material crumbles or is broken up and there is the possibility that their long thin fibres are released into the air. It is the smallest of these fibres that pose the biggest threat to health if inhaled.

The key factor however in the risk of developing an asbestos-related disease is the total number of fibres inhaled. Inhaled fibres can become lodged in the chest tissue and the body's natural defences may not be able to easily break them down.

## **Locations where ACMs may be found**

### **BUILDINGS**

Any building that was constructed or underwent major refurbishment between the 1950's and mid 1980's is likely to contain ACMs as they were used in hundreds of different products and buildings during this period. Asbestos products continued to be used until 1985 when blue and brown asbestos were banned and 1999 when the use of all ACMs was banned.

The use of ACMs peaked in the 1960's and early 1970's therefore premises built or refurbished during this time are the most likely to contain ACMs.

The following are examples of ACMs used in buildings:

<b>Potentially High/Major/Significant Hazard (Work that requires an exemption to licensing)</b>	
Asbestos coatings	<p>Widely used mixtures containing asbestos that were used to provide fire protection, acoustic properties, heat and condensation control by:</p> <ul style="list-style-type: none"> <li>– spraying onto structural beams, girders etc.</li> <li>– loosely packing between floors and in partition walls</li> <li>– lagging e.g. on pipework, boilers, calorifiers, heat exchangers, insulating jackets for cold water tanks, around ducts.</li> </ul> <p>Typical buildings include: office blocks, cinemas, theatres, swimming pools, multi-storey car parks, cold stores, hospitals, shops, derelict industrial buildings where old lagging has not been maintained etc.</p>
Asbestos Insulating Boards (AIB)	Used for fire protection, thermal insulation, e.g. ceiling tiles, partition walls, soffits, service duct covers, fire breaks, heater cupboards, door panels, lift shaft linings, fire surrounds, backing panels for radiators, heater and boilers.
Asbestos insulation	ACMs which were not in practice applied as coatings. They include preformed sections for pipe insulation, laggings, void infills and packing around cables which pass through floors, millboards used for electrical as well as thermal insulation.

<b>Potentially Lower/Minor/Less Significant Hazard (Work that does not require an exemption to licensing)</b>	
In some ACMs the asbestos is firmly embedded and the fibres are very difficult to release examples include:	
Asbestos cement products	<b>The potential for fibre release is usually low.</b> However contamination can arise when asbestos cement is damaged or removed without suitable controls. Cement products include flat or corrugated roof sheets, wall cladding, guttering and downpipes, water tanks, bath panels, boiler and incinerator flues, fire surrounds etc.
Certain textured coating	e.g. artex.
Reinforcement for plastics and mastics	e.g. floor tiles, mastics, sealants.
Paper and paper products	Used for insulation of electrical equipment.
Asbestos paper	Has been used as a fire proof facing on wood fibre board.
Rope seals, gaskets	e.g. pipework, bituminous products such as roofing felt.

## **RAILWAY ROLLING STOCK (RAIL VEHICLES)**

ACMs that remain in refurbished rail vehicles used on network rail's infrastructure have been securely encapsulated. Therefore fibre release and possible exposure to the fibres will only occur in the event of a catastrophic failure of the vehicle e.g. as a result of a serious collision.

## **SHIPS**

All types of asbestos have been widely used in shipping. It is likely to be found on board a ship in:

- cladding of fire-retardant bulkheads
- glands of high temperature valves
- friction materials in machinery
- lagging on boilers and steam pipes.

Other hazards that may be encountered on board ships will include:

- hazardous loads
- confined spaces e.g. boiler rooms.

## **The environment**

- asbestos is non-degradable, and if released into the environment could constitute a public health hazard
- fibres once released can be easily dispersed
- land contaminated by ACMs and/or fibres may present a hazard for the land owner or 'responsible person' and can equally apply to brownfield<sup>1</sup> sites that may not have been thoroughly decontaminated as to sites where fibres may have been blown during an incident
- consideration should always be given to the potential hazards posed by water run off.

## **Other considerations**

The presence of ACMs may not be confirmed or apparent until the closing stages or even until the end of an incident and personnel may already have been exposed, if fibres have been released.

In such circumstances the unintentional spread of fibres may have already occurred via:

- clothing – fibres trapped in fabrics
- breathing apparatus sets – fibres trapped on webbing etc.
- equipment – fibres trapped in crevices etc.

Incident ground activities such as making an entry or cutting away are likely to release fibres if asbestos is present in the materials being disturbed.

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<sup>1</sup> A site that is previously developed land. It is land that is most often (but not always) used for industrial and commercial purposes.



The use of power tools will disturb any asbestos present and potentially release fibres.

The use of positive pressure ventilation (PPV) could disturb damaged materials or debris.

Once released, asbestos fibres may be spread via:

- smoke/fire plume
- wind
- rain and/or firewater forming asbestos slurry.

## Key control measures

### Pre-planning

Pre-planning is key to enhancing the safety of firefighters and others likely to be affected by FRS operations. Each FRS's Integrated Risk Management Plan (IRMP) will set standards and identify the resources required to ensure safe systems of work are maintained.

Each FRS should assess the hazards and risks in their area relating to this GRA and site-specific plans should be considered for locations where these are significant. This assessment should include other FRS areas where "cross border" arrangements make this appropriate.

Such contingency plans should include:

- levels of response
- relevant SOPs
- tactical considerations including rendezvous points (RVPs), appliance marshalling areas and access points.

Pre-planning is underpinned by information gathering, much of which will be gained through inspections or visits by FRS staff – for example, those covered by section 7(2)(d) [etc] risk information, 8(2)(d) road traffic accidents and 9(3)(d) other emergencies of the *Fire and Rescue Services Act 2004*.

Information should also be gathered and used to review safe systems of work, from sources both within and outside the FRS, including:

- fire safety audits
- incident de-briefs
- health and safety events
- local authorities
- Local Resilience Forums.

Involving others in pre-planning is also an effective way to build good working relations with partner agencies and other interested parties, such as site owners.

FRSs should ensure systems are in place to record and regularly review risk information and to ensure that new risks are identified and recorded as soon as practicable.

FRSs must ensure that the information gathered is treated as confidential, unless disclosure is made in the course of duty or is required for legal reasons.

FRSs should consider the benefits of using consistent systems and formats to record information from all sources. Consideration should also be given to when access will be provided to information to support operational decision-making.

Information needs and the capacity of FRS staff to assimilate information will vary in proportion to the nature and size of the incident and what stage the operational response has reached. Arrangements need to be flexible and may be based on more than one system.

Further guidance on pre-planning will be found in *National guidance for the Provision of Operational Information*.

Specific pre-planning for this GRA includes the requirement for a written policy which outlines:

- how the FRS will deal with ACM incidents by using best practices for reducing the risk of contamination based on the principals of hierarchical control
- how the FRS is going to train their staff to raise awareness, reduce the risk of exposure and to protect themselves, the public and the environment
- the FRS's decontamination procedures

## Training

When formulating a training strategy a FRS should consider the following points:

- a FRS must ensure their personnel are adequately trained to deal with the hazards and risks associated with ACMs in order to protect themselves, the public and the environment
- the level and nature of training undertaken should be shaped by informed assessment of operational and individual needs in accordance with the FRS guidance on the integrated personal development system, national occupational standards and any internal training plan
- training and development should follow the principles set out in national guidance documents
- training and development programmes should generally be structured so that they move from simple to more complex tasks and from lower to higher levels of risk
- training and development will typically cover standard operational procedures as well as ensuring knowledge and understanding of equipment and the associated skills that will be required to use it

- training and development programmes should consider the need for appropriate levels of assessment and provide for continuous professional development to ensure maintenance of skills and to update personnel whenever there are changes to procedure, equipment etc.

Training outcomes should be evaluated to ensure that the training provided is effective, current and meets defined operational needs as determined by the FRS IRMP.

## **Command and control**

The Incident Command (IC) should follow the principles of the current national incident command system. Prior to committing personnel into any hazard area, the IC must take account of the actual information available to make operational decisions in what are recognised as sometimes dangerous, fast moving and emotionally charged environments.

A thorough safety brief prior to deployment of personnel within the hazard zone must be carried out.

## **Safety Officer(s)**

The early appointment of one or more Safety Officer(s) will help ensure that risks are either eliminated or reduced to an acceptable level.

A safety decision making model should be used to brief Safety Officers regarding the nature of the incident, the allocated task and prevailing hazards and risks. The IC should confirm that the Safety Officer understands:

- their role and area of responsibility
- allocated tasks
- lines of communication.

Those undertaking the Safety Officer role should:

- be competent to perform the role
- ensure personnel are wearing appropriate Personal Protective Equipment (PPE)
- monitor the physical condition of personnel and/or general or specific safety conditions at the incident in accordance with their brief
- take any urgent corrective action required to ensure safety of personnel
- update the IC or senior Safety Officer regarding any change in circumstances
- not be engaged in any other aspect of operations, unless this is required to deal with a risk critical situation.

The Safety Officer function can be undertaken by any role, but the complexity of the task, size of the incident and scope of responsibility should be considered by the IC when determining the supervisory level required.

Safety Officers should wear nationally recognised identification to indicate they are undertaking the Safety Officer role.

FRSs should ensure that training and other measures (such as aide-memoires) are in place and available to support those staff liable to undertake this role.

### **Specific control measures**

There are strict occupational exposure control limits which must not be exceeded. It is, however, difficult to measure the amount of asbestos fibres that may have been released during operational incidents.

It is therefore prudent for FRSs to assume, when carrying out their own assessment that all activities will require control measures e.g. respiratory protective equipment (RPE), even when any possible exposure to released fibres maybe below the exposure limits (e.g. ACMs in which the fibres are firmly embedded).

### **The Control of Asbestos Regulations 2006 (The Regulations)**

The Regulations apply to ALL work activities involving ACMs.

However the Health and Safety Executive (HSE) can in certain circumstances issue an exemption certificate from the requirement to comply with certain aspects of the regulations.

The HSE cannot issue an exemption from the whole regulations.

### **FRS exemption certificate**

The HSE has issued an exemption certificate against regulation 7 (Plans of work) and regulation 9 (Notification of work with asbestos) which permits ALL UK FRSs to undertake work with ACMs that requires a licence, without the need for a licence, if the work is necessary to safely deal with an operational incident.

The certificate is issued subject to a suitable method statement being agreed between Communities and Local Government and the HSE and adopted by FRSs.

The method statement can be viewed:

- electronic – <http://webarchive.nationalarchives.gov.uk/+http://www.communities.gov.uk/documents/fire/pdf/130136>.

Any significant local variation from the method statement must be agreed between the FRS and the HSE.

#### **NOTE**

The certificate does not exempt FRSs from their responsibilities to comply with the remainder of The Regulations e.g. duty to manage asbestos in their own properties.

## Buildings

The Regulations require “duty holders” to actively manage asbestos in non-domestic premises. To achieve this, they must prepare a written plan (commonly known as an Asbestos Register or Asbestos Survey Report) identifying where asbestos is or is likely to be present, and the measures taken to manage the risk. The plan should be readily available on site for anyone to examine.

The ‘duty holder’ is also required to ensure that information about the location and condition of any asbestos is made available to the emergency services.

*Guidance in The Management of Asbestos in Non-domestic Premises Approval Code of Practice (ACoP)<sup>2</sup> states:*

*“..... the FRS are the emergency service most likely to disturb or come into contact with disturbed asbestos and they should be contacted to see what information they want, in what form they would like it and if they would like the information sent to them”.*

Although the ACoP puts the emphasis on the dutyholder to contact the FRS, in practice this is unlikely to happen to an extent whereby the FRS is made aware of all the asbestos in its area.

FRSs should therefore consider augmenting information provided by duty holders by gathering data themselves. Examples of how data could be gathered would include:

- 7(2)(d) [etc] risk information visits
- fire safety inspections
- operational intelligence
- site exercises.

FRSs may want to consider a hierarchy of risk approach when responding to ACM incidents with e.g. the highest risk being where owner/occupiers of buildings built prior to 1999 do not provide the FRS with, in the opinion of the FRS, sufficient information when requested.

## Railway rolling stock (rail vehicles)

The HSE have issued an exemption certificate for rail vehicles leased to authorised train operators for use on the national rail network. The exemption stipulates that the vehicles must have been through British Rail’s programme for the removal of amphibole asbestos from the vehicle. If any such asbestos remains in the vehicle, it is protected, and cannot release any fibres during normal operation or routine light maintenance.

In addition the HSE has issued an exemption certificate to permit the use of bearings or housings containing a mixture of asbestos and phenol/cresilic formaldehyde resin.

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<sup>2</sup> <http://www.hse.gov.uk/pubns/books/l127.htm>.

Operators of railways whether:

- national rail
- preservation/historical lines
- underground and/or sub surface
- light rail/trams

should be able to provide details of any ACMs within their stock

## **Ships**

FRSs with waterfronts should liaise with their local port/docks authority for guidance on any specific ACM hazards and obtain information on the types of ships that routinely visit.

The likelihood of a FRS attending an incident at sea is low and those Services who have a coastline and also undertake offshore fire fighting should have in place plans that include, wherever possible, obtaining information on any specific hazards on board (which may include asbestos) prior to firefighters leaving port.

## **Considerations when dealing with ALL activities involving ACMs**

As part of the ongoing process to safely manage the incident, by balancing the risks to FRS personnel the public and the environment against the perceived benefits of their options the IC should:

- determine whether ACMs are likely to be present
- determine whether ACMs (if present) are in the form of asbestos cement or textured coating (lower hazard) or asbestos insulation or coatings (high hazard) at non-domestic premises. Consulting the building's asbestos register should assist the IC in determining the type and location of any ACMs
- determine whether any ACMs are involved or are likely to become involved e.g. the release of fibres when making an entry
- ensure that an appropriate safe system of work is adopted to reduce exposure of staff to fibres to the lowest level reasonably practicable and ensure that staff and equipment are appropriately decontaminated, if necessary

To achieve the above the following are control measures the IC should:

- once ACMs are suspected or confirmed inform all personnel of their presence
- keep numbers of personnel to the minimum required to safely deal with the incident
- allow only essential personnel to enter the risk area
- ensure appropriate RPE and PPE complying with all current relevant standards is worn
- consider, whenever circumstances allow, the use of chemical protective clothing (CPC) as this is more efficiently decontaminated

- avoid use of PPV fans unless to do so is imperative as they are more likely to release airborne asbestos fibres from any disturbed/damaged structure
- avoid disturbing ACMs (e.g. cutting away an area to gain access) unless it is absolutely essential. If essential, the area should be wetted and disturbance kept to a minimum
- hand not powered tools should be used as their use reduces the amount of potential fibre release
- keep to a minimum the movement of ash and debris (e.g. turning over) and ensure it is carefully carried out to prevent/reduce the amount of fibres that maybe released
- NOT intentionally break any ACMs into smaller pieces
- leave intact and undisturbed individual pieces of asbestos cement sheeting if the fire has disturbed and distributed it over a wide area
- if disturbed, ensure the ACMs are wetted, using a fine spray and moved as short a distance as possible (but still within the risk area) to a safe place with the safe conclusion of the incident
- instigate, when necessary, decontamination procedures
- contain any water run off/slurry
- ensure smoking, drinking or eating is not allowed in the risk area
- ensure equipment and PPE is washed down of prior to leaving the incident
- ensure good personnel hygiene both during and post incident.

On completion of the incident, handover of the incident ground to the responsible person, who normally (but not always) will be the owner/occupier.

#### **NOTE**

Although the Regulations require premises to be thoroughly cleaned before being handed back to the owner/occupiers following work with asbestos this requirement does NOT apply to the FRS whilst attending operational incidents.

## **The environment**

The responsibility for the environmental impact and site cleaning rests with the owner/ occupier of the premises. However, every effort should be made whilst dealing with the incident to mitigate the impact on the environment.

## **Fire investigation**

The presence, or not, of ACMs will usually have been established prior to fire investigation taking place.

If ACMs are confirmed or suspected, the control measures outlined above in *Considerations when dealing with ALL activities involving ACMs* should be considered by the Fire Investigation Team.

## Personal Protective Equipment (PPE)

FRSs must ensure that any PPE provided is fit for purpose and meets required safety standards. When choosing suitable protective garments, the standard of clothing worn beneath the specialist PPE should also be taken into account. Consideration should also be given to the selection of suitable sizes and gender specific requirements of PPE.

PPE should also take account of the need for rescuers to be visible against the operational background including night working and for the IC and other managerial and functional roles (defined in the national incident command system) to be distinguishable.

All personnel must use appropriate levels of Service provided PPE and Respiratory Protective Equipment (RPE) as determined by the safe system of work.

The FRS may want to consider sample testing of PPE to evaluate if their decontamination and laundering procedures are effective in maintaining the PPE's integrity and cleanliness.

## Post incident

The following measures should be considered to help eliminate or remove risks after an incident, as appropriate to the nature and scale of the incident:

- any: safety events, personal injuries, exposure to hazardous substances or near-misses should be recorded, investigated and reported in line with legislative requirements such as Reporting of Injuries Diseases and Dangerous Occurrence Regulations 1995, etc.
- arrangements should be in place to either remove all contamination from PPE or to ensure it's safe and appropriate disposal and to check that PPE maintains the agreed levels of integrity and protection for the wearer throughout it's lifecycle
- as appropriate ensure occupational health support and surveillance follow up
- conduct a de-brief to identify and record any "lessons learned" from the incident. De-briefs will range in complexity and formality, proportionate to the scale of the incident and in line with individual FRS procedures
- consider any changes required to safe systems of work, appliances or equipment in the light of any lessons learned from debriefs or from safety events
- consider the need to review existing information held on a premises or location, or the need to add a new premises or locations into future preplanning e.g. by adding a visit or inspection programme
- staff should be supported and monitored to identify whether they are experiencing any adverse affects and to check whether they would benefit from accessing counselling and support services
- consideration should be given to arranging for staff to make a contemporaneous written record of their actions. This information may be used to assist in any internal or external investigations or enquiries that follow any incident e.g. coroners court, public enquiry, etc.



## Health surveillance

A record must be made and retained for a minimum of 40 years from the date of the last entry for any personnel who have been exposed to asbestos fibres. In addition, when considered appropriate, regular health surveillance should be undertaken.

Technical references	
1	Control of Asbestos Regulations 2006
2	Health and Safety at Work Act 1974
3	Management of Health and Safety at Work Regulations 1999
4	Personnel Protective Equipment Regulations 1992 (as amended)
5	Work with materials containing asbestos (HSE ACoP L143)
6	The management of asbestos in non domestic properties (HSE ACoP L127)
7	HSE Exemption certificates 1:1995 and 2:1999.
8	HSE Exemption certificate 2:2003.
9	DCOL 2/2004 Item A – Asbestos method statement
10	FSC 35/2005 Certificate of exemption for work with certain asbestos materials and certificate of exemption 1:2005
11	E-Mail from HSE 1st May 2007 confirming continued validity of exemption certificate under the Control of Asbestos Regulations 2006
12	E-mail from HSE asbestos licensing unit confirming validity of exemption certificate 2009
13	Health Protection Agency asbestos tool kit
14	HSG 264 The Survey Guide

## SECTION 2

### Summary of GRA 5.9

#### Asbestos

#### Task – On Arrival – ALL Incidents

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
1	Asbestos confirmed	Fibres released into smoke plume	Contamination Inhalation of fibres	FRS personnel	Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE TB1/97 Approach from upwind Do not enter smoke/dust plume Essential personnel only and keep to minimum.
			Contamination	Public	Advise relevant statutory body Consider advising the closure of nearby windows.
		Intact ACMs	None unless damaged or disturbed	FRS personnel	Unless essential do NOT damage/disturb Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE.

## Summary of GRA 5.9

### Asbestos

#### Task – As it develops – ALL incidents

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
2	Asbestos either discovered or confirmed	Fibres released	Contamination Inhalation of fibres	FRS personnel	Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE Advise relevant statutory body Essential personnel only and keep to minimum Keep asbestos wetted using low pressure water spray Unless essential do NOT use PPV Decontamination.
		Intact ACMs	Contamination	Public (if smoke plume)	Advise relevant statutory body Consider advising the closure of nearby windows.
			None unless damaged or disturbed	FRS personnel	Unless essential do NOT damage/disturb Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE.

## Summary of GRA 5.9

### Asbestos

#### Task – As it develops – ALL incidents

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
3	Rupture of asbestos cement product – spreading debris	Possible fibre release	Low level contamination	FRS personnel	Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE Only move damaged ACM if essential and in risk area Do not move individual ACM pieces unless they interfere with safe conclusion of incident even if outside risk area Advise relevant statutory body Decontamination as per SOP.
			Unlikely to pose anything other than a low contamination risk	Public	Advise relevant statutory body Consider advising the closure of nearby windows.

## Summary of GRA 5.9

### Asbestos

#### Task – Working with ACMs in buildings

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
4	Cutting through ACM e.g. to gain access.	Damaging ACM and releasing fibres	Contamination Inhalation of fibres	FRS personnel	Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE Use hand tools Wetting by using a fine water spray DO NOT break into small pieces Only move cut/damaged asbestos if essential and contain in risk area Decontamination.

## Summary of GRA 5.9

### Asbestos

#### Task – Working with ACMs in buildings

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
5	Damping down turning over	Damaging or disturbing of ACM releasing fibres	Contamination Inhalation of fibres	FRS personnel	Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE Unless essential DO NOT disturb debris/ash Wet (do NOT over wet) dry asbestos Contain slurry from incident Only move damaged asbestos if essential but contain in risk area.

## Summary of GRA 5.9

### Asbestos

#### Task – Working with ACMs ships

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
6	Confirmed ACMs	Fibres already released but contained in ship	Contamination Inhalation of fibres	FRS personnel	Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE Essential personnel only and keep to minimum Decontamination.
			Contamination Inhalation of fibres	Ships' crew	Evacuation In house procedures.

## Summary of GRA 5.9

### Asbestos

#### Task – Working with ACMs ships

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
		Fibres released into smoke plume	Contamination Inhalation of fibres	FRS personnel	Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE Approach from upwind Do not enter smoke/dust plume Decontamination.
				Ships crew	Evacuation In house procedures.
			Contamination	Public	Advise relevant statutory body Consider advising the closure of nearby windows.



## Summary of GRA 5.9

### Asbestos

#### Task – Working with ACMs ships

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
		Confined space	Contamination Asphyxiation	FRS personnel	Standard Operating Procedures Incident Command Training to identify asbestos RPE MUST be worn.
		Intact ACMs	None unless damaged or disturbed	Ships crew	Evacuation In house procedures.
				FRS personnel	Unless essential do NOT damage or disturb ACMs Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE.

## Summary of GRA 5.9

### Asbestos

#### Task – Working with ACMs ships

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
7	Cutting through ACM e.g. to gain access	Fibre release	Contamination Inhalation of fibres	FRS personnel	Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE Use hand tools Wetting DO NOT break into small pieces Only move cut/damaged asbestos if essential and contain in risk area Contain slurry from incident.

## Summary of GRA 5.9

### Asbestos

#### Task – Working with ACMs Railway Rolling Stock

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
8	Cutting of carriages etc. to gain access or rescue	Possible fibre release	Contamination Inhalation of fibres	FRS personnel	Asbestos will only be found in “inaccessible” areas so unless severely damaged the rolling stock should not release fibres Standard Operating Procedures Incident Command Training to identify asbestos PPE/RPE Essential personnel only and keep to minimum Use hand tools on and around ACM Wetting DO NOT break asbestos into small pieces Only move cut/damaged asbestos if essential and contain in risk area Contain slurry from incident.

## Summary of GRA 5.9

### Asbestos

#### Task – Working with ACMs Railway Rolling Stock

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
				Passengers	Asbestos will only be found in “inaccessible” areas so unless severely damaged the rolling stock should not release fibres Use hand tools on and around ACM Wetting Consider RPE for “trapped” passengers DO NOT break asbestos into small pieces Only move cut/damaged asbestos if essential and contain in risk area Contain slurry from incident.
				Other emergency services	Asbestos will only be found in “inaccessible” areas so unless severely damaged the rolling stock should not release fibres Essential personnel only and keep to minimum Use hand tools on and around ACM Wetting DO NOT break asbestos into small pieces Only move cut/damaged asbestos if essential and contain in risk area Contain slurry from incident.

## Summary of GRA 5.9

### Asbestos

#### Task – Working with ACMs Railway Rolling Stock

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
9	Bearings or housings containing a mixture of asbestos and phenol/ cresilic formaldehyde resin	Fibre release Toxic chemicals	Contamination Inhalation of fibres Toxic chemicals	FRS personnel Passengers Other emergency services	Release of fibre or toxic chemicals is very unlikely.

#### Task – working with ACMs Fire Investigation

Ref. No.	Activity	Hazard	Risk	Persons at risk	Control measures
10	Fire investigation	Damaging or disturbing of ACM releasing fibres	Contamination Inhalation of fibres	FRS personnel	Standard Operating procedures for FI Training to identify asbestos PPE/RPE Essential personnel only IF IT IS ESSENTIAL TO DISTURB ACM Use hand tools on and around ACM Wetting DO NOT break asbestos into small pieces Only move cut/damaged asbestos if essential and contain in risk area Contain any slurry Decontamination.