RISK MANAGEMENT

MODULE 3
BUILDING ENVIRONMENT 2
ASBESTOS

MAXIMISING MINISTRY BY MINIMISING HARM

September 2007

SUMMARY

- This module covers the subject of asbestos-containing materials in our properties
- Asbestos is a particularly hazardous substance that requires special attention and treatment.
- Only persons competent in the identification of asbestos-containing material (ACM) are permitted to carry out the task of identifying ACM.
- From 2008 the Diocese has a program to have all parish properties inspected and an asbestos register prepared for each parish. The register will be prepared by the consultants who carry out the inspections.
- The register will include:
    - The identification and location of all ACM.
    - Risk assessment of each finding of ACM.
    - Control measures for ACM.
- If you consider that your parish may have an urgent problem, you should not wait for the Diocesan program to reach your parish, but contact the Manager, Property Strategy (9265 1633), the Manager, Clergy & Church Support Services (9265 1680) or your Archdeacon.
- Controllers of premises must establish an asbestos management plan which will include:
    - the register of asbestos containing material (ACM) and
    - a program to carry out any necessary remedial work.

INTRODUCTION

This is the third module in the Parish Risk Management Program. It needs to be read and applied in light of the previous introductory sections **'A Risk Management Program for Parishes' (Overview) and 'Developing a Risk Management Plan' (Plan).**

> "The Diocese has a program to have all parish properties inspected and an asbestos register prepared for each parish."

Asbestos is one of the hazardous substances that may be present in our buildings. Hazardous substances in general are covered in Module 2 of the Parish Risk Management Program. However, asbestos can cause very serious long term health problems and it may take many years for these health problems to become apparent. Materials that contain asbestos may not be readily identifiable and the condition of those materials may or may not pose an immediate health risk. Therefore, asbestos requires separate consideration from other hazardous substances.

We have all seen the level of media attention that is drawn when people have been exposed to contamination from asbestos. The Australian Government's National Occupational Health and Safety Commission code of practice [NOHSC:2018 (2005)], has been issued specifically to provide guidelines for dealing with asbestos.

Dealing with asbestos is essentially the same as dealing with any other risk. That is, we deal with asbestos because of our care for our ministry team, our volunteers, contractors, congregations and visitors. The process is broadly set out in the Risk Management Plan booklet, steps 3 to 7. That is:

- Identify the risks.
- Analyse the risks identified.
- Evaluate the risks.
- Treat and control the risks.
- Review and monitor.

> "Dealing with asbestos is essentially the same as dealing with any other risk..."

Location of asbestos-containing materials in buildings

Asbestos is a naturally occurring fibrous silicate material. It was mined in Australia until the early 1980's. These minerals were used extensively in the past because of their fibrous nature (providing structural strength in products like fibro sheeting), low heat conductivity (insulation on steel building structures, steam pipes etc), high electrical resistance (used in power boards and electrical fittings) and chemical inertness.

ACM may be found throughout many public and private buildings and structures, especially those built between the 1950s and the late 1970s to early 1980s.

It frequently had such uses as external cladding (walls), roofing, gutters, downpipes, drainage and conduits. Internally, it is frequently, but not exclusively, found around wet areas such as kitchens, bathrooms, laundries and garages mainly as walls or ceilings. It may be found in floor tiles, roof tiles and the backing of switchboards. It was quite frequently used in heat insulation around hot water pipes and boilers, mainly in commercial premises.

- **If you are uncertain as to whether an item is asbestos containing material or not, it is safer to presume that it is, until it can be checked.** If you have a particular concern contact the Manager, Property Strategy (9265 1633), the Manager, Clergy & Church Support Services (9265 1680) or your Archdeacon.

Is all asbestos containing material immediately harmful?

No! ACM that is "bonded" and in good condition is not an immediate health risk. Definitions of "bonded" and "friable" ACM are as follows:

Under NSW legislation, material that contains asbestos is referred to as either friable or bonded. Below are definitions of these two forms and some examples.

a) Bonded asbestos material

Bonded asbestos material is any material that contains asbestos in a bonded matrix. It may consist of Portland cement or various resin/binders and cannot be crushed by hand when dry. Asbestos cement (AC) products and electrical metering boards in good condition are examples of bonded asbestos material.

A large number of products made from asbestos cement are still to be found in Australian buildings. These products include:

- *Flat (fibro), corrugated or compressed asbestos cement sheeting*
- *Asbestos cement pipes such as electrical, water, drainage and flue pipes*

b) Friable asbestos material

Friable asbestos material is any material that contains asbestos and is in the form of a powder or can be crumbled, pulverised or reduced to powder by hand pressure when dry. Sprayed limpet, millboard, pipe and boiler lagging are examples of friable asbestos.

Asbestos inappropriately buried (i.e. not in accordance to any environmental legislative requirements) is considered friable asbestos material.

Any asbestos cement product, which has been subjected to weathering, severely damaged by hail, damaged by heat/fire or other mechanical action, or illegal water blasting is a friable asbestos product and an Asbestos Removal Contractor with an AS1 License for friable asbestos is required for its removal.

Source: *WorkCover: 'Your Guide to Working With Asbestos' March 2003*

Health aspects of exposure to airborne asbestos fibres

ACM which is in place and where there is no risk of the fibres becoming airborne (bonded), is not immediately harmful. Asbestos is harmful when fibres from the ACM are inhaled. To be inhaled they have to be airborne.

Therefore ACM can become harmful if it is disturbed. Any interference with bonded asbestos bearing materials can release asbestos fibres into the air. For example such actions as drilling, boring, cutting, filing, brushing, grinding, sanding, breaking, smashing, or blowing with compressed air. Moving crumbling material can have the same effect. A lawn mower or motor vehicle running over broken fibro pieces may cause asbestos fibres to become airborne.

A brief description of health problems follows:

Asbestos is a known carcinogen. The inhalation of asbestos fibres is known to cause mesothelioma, lung cancer and asbestosis.

Malignant mesothelioma is a cancer of the outer covering of the lung (the pleura) or the abdominal cavity (the peritoneum). It is usually fatal.

Mesothelioma is caused by the inhalation of needle-like asbestos fibres deep into the lungs where they can damage mesothelial cells, potentially resulting in cancer.

The latency period is generally between 35 and 40 years, but it may be longer, and the disease is very difficult to detect prior to the onset of illness.

Mesothelioma was once rare, but its incidence is increasing throughout the industrial world as a result of past exposures to asbestos. Australia has the highest incident rate in the world.

Lung cancer has been shown to be caused by all types of asbestos. The average latency period of the disease, from the first exposure to asbestos, ranges from 20 to 30 years. Lung cancer symptoms are rarely felt until the disease has developed to an advanced stage.

Asbestosis is a form of lung disease (pneumoconiosis) directly caused by inhaling asbestos fibres, causing a scarring (fibrosis) of the lung tissue which decreases the ability of the lungs to transfer oxygen to the blood. The latency period of asbestosis is generally between 15 and 20 years.

Asbestos poses a risk to health by inhalation whenever asbestos fibres become airborne and people are exposed to these fibres.

Source: *Code of Practice for the Management and Control of Asbestos in Workplaces [NOHSC:2018(2005)] page 15*

ASBESTOS MANAGEMENT PLAN AND ASBESTOS REGISTER

The steps in the **risk management process** for asbestos are the same, in principle, as dealing with any other risk. However, due to its particularly hazardous nature, separate records are to be kept for asbestos.

> "The register of ACM, work schedule and contractor's work log are to be kept by the churchwardens."

An asbestos management plan is to be developed for the parish. The **management plan** consists of:

- This module and the information that it contains
- **Work practice guides**, which are an appendix to this module
- The **register of ACM**, which will be prepared by the consultants who carry out the inspection of the parish's properties
- The **work schedule** that the parish will need to develop to implement the recommendations contained in the inspection report. A work schedule may be found on page 9. In addition there is a **contractor's work log** on page 10 to be used when a contractor is engaged to carry out the work.

The **register of ACM, work schedule** and **contractor's work log** are to be kept by the churchwardens. The register of ACM will cover:

- **Identification**
  - Date of the inspection, details of the competent person(s) who carried out the inspection.
  - Details of location, types (i.e. friable or non-friable) and condition (i.e. damaged or intact) and type of asbestos (i.e. blue, brown, white).
  - Details of any material presumed to contain asbestos.
  - Any inaccessible areas that are likely to contain ACM.
  - The results of any analysis that has confirmed that a material is, or is not, ACM.
- **Risk Assessment**
  - Findings and conclusions of the risk assessment for each identification of ACM.
- **Control Measures**
  - The control measures recommended as a result of the risk analysis.
  - Any maintenance or service work on ACM, including the Company or persons involved, the date and scope of the work and details of clearance certificates.

As stated above, the report prepared by consultants who carry out asbestos inspection, becomes the Asbestos Register. The exception is the last point under 'Control Measures', which is recording the actual work done on the ACM in response to the recommendations in the consultant's report. A record of work done is to be kept with the Asbestos Register. As stated above, the work schedule may be found on page 9.

Implementation of the Asbestos Management Plan

The inspection report prepared by the consultant will contain recommendations for dealing with each location of ACM. The report will include a risk assessment stating the priority for dealing with each location that has been identified.

The ultimate goal is to remove all ACM from parish premises. However, that may not be possible in the short to medium term. Therefore there will be a number of recommendations in the consultant's report:

- In many situations, such as fibro walls, the ACM will be in a non-friable (bonded) condition and only warning signs and labels will need to be attached.
- Some situations may require painting or a sealant to be applied or some other form of enclosure of the ACM.
- Some situations will require the ACM to be repaired or removed. Friable asbestos is only to be repaired/removed by a person holding a current friable asbestos removal license. Bonded asbestos of more than 50 square metres (10 square metres from 1 January 2008), is only to be repaired/removed by a person holding a current bonded or friable asbestos license or a demolition license.
- If any area contains friable ACM which is an immediate high health risk, it will be necessary to cease using that area, until the required remedial action is taken.
- Where ACM is located in gardens, grassed areas or carparks, the inspection report will recommend the corrective action to be taken. If the site is cleared of visible ACM, it will have to be regularly monitored for any more fragments that may work to the surface. In some situations it may be necessary to remove all contaminated soil/grass/gravel and replace with clean material.

Where building work is to be done, the opportunity should be taken to remove any ACM that is present in the area being worked on. **It must not be reused!**

Where bonded asbestos material of 50 square metres (10 square metres from 1 January 2008) or less is being removed or repaired, it must be done so as not to create any dust or loose fibres and the area must be thoroughly cleaned. Do not use vacuum cleaners unless they are fitted with High Efficiency Particulate Air Filters (normal vacuum cleaner filters will not filter out asbestos fibres) Controlled wetting of the asbestos waste should be used to minimise the possibility of dust during removal or disposal.

For transport the ACM must be labelled and sealed using heavy duty plastic bags or

leak proof containers and taken to a disposal site approved by the NSW Department of Environment and Climate Change.

See the NSW Waste Services website www.wasteservice.nsw.gov.au . Go to the search field at the top right of the page and type in 'asbestos' and select 'asbestos waste'.

Also refer to the Work Practice Guide in the appendix for details.

Communication

The register must be drawn to the attention of all who work on your site. Employees and volunteers are to be made aware of the location of any ACM, and the recommendations for treatment and/or maintenance. This is especially important for people who are carrying out cleaning or maintenance.

> "Where friable asbestos is present, people should be advised to remain away from the area until remedial action has been taken."

Contractors are to be shown the asbestos register before commencing work. This is part of the Contractor Safety Plan in Module 2 of the Parish Risk Management Program.

Warning signs and labels attached to the material will inform about ACM that is non-friable.

Where friable asbestos is present, people should be advised to remain away from the area until remedial action has been taken. If necessary, prevent access to the area by fencing off or using any other appropriate means, taking particular care to ensure that children cannot gain access to the affected area.

Warning Signs and Labels

Signs are to be placed onto asbestos roofs and labels attached to ACM in a place where the label is not necessarily obtrusive, but can be clearly seen.

Regular Inspections

Where ACM is left in place, or is treated/repaired and left in place, it needs to be inspected annually to ensure that its condition does not deteriorate and become friable. **Please refer to the Work Practice Guide No.10 for more information – page 36.**

PLEASE NOTE: the inclusion of the Work Practice Guides is not a recommendation for unqualified parish personnel to undertake remedial work on ACM. Please seek professional advice before any work commences.

Parish Asbestos Management Program - Work Schedule for treatment of Asbestos Containing Material

Parish .....

Site (if more than one schedule required for the Parish) .....

Please note: Information for the first 4 columns is to be taken directly from the table in the Consultant's report (Asbestos Register)

Location of ACM	Condition	Risk	Recommended treatment	Action plan What is to be done; who will do it; when will it be done?	Date work completed

Parish Asbestos Management Program - Contractors work log

To be used where a contractor is engaged to carry out work in accord with the recommended treatment of ACM in the Consultant's report (Asbestos Register)

Date	Description of work	Asbestos procedures followed as per documents in the register	Contracting Company	Contractor's Name	Contractor's Signature

WORK
Practice Guides

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CONTENTS

WORK PRACTICE GUIDE No. **PAGE NO.**

	DATE: July 07
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GUIDE No. 1	REFURBISHMENT OF BUILDING THAT CONTAINS ASBESTOS CEMENT

1. PURPOSE

To effectively manage the refurbishment of building areas that are lined with an asbestos containing material. This material is usually asbestos cement and may need to be removed because it is badly damaged, the building needs other repairs and to gain access the asbestos cement needs to be removed or modifications to the layout of a building are required and walls/ceilings are being removed. In all instances removal of asbestos cement means that this material is not able to be reused and needs to be disposed of in accordance with strict requirements.

This procedure provides a summary of how to go about removing asbestos cement.

Responsibilities for using this procedure are listed in the next section.

2. RESPONSIBILITIES

- Building maintenance contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

Removal of asbestos cement is not possible without small fragments of this material being released. This occurs where the clouts holding the sheets or cladding in place are removed. It also occurs where the claws of a hammer or jemmy bar are placed behind the sheets to loosen the sheet. Therefore exposure to airborne asbestos fibres will occur. These fragments contain bundles of asbestos fibres that are loose on the surface of the fragments. Containment of these are necessary as otherwise the building area will become contaminated with friable asbestos. Clean up of work areas is therefore a necessary step.

Removal of sheets without these cracking is a key objective but is also very difficult to achieve in practice hence there are a number of precautions that are used.

Regulatory Requirements

The regulatory requirements limit the quantity of asbestos cement that may be removed before using an AS2 licensed asbestos contractor in NSW. Chapter 10 of the OH&S Regulation 2001

limits the removal to 50 square metres before a licensed asbestos contractor is required. Amendments to this regulation are in place to reduce this quantity to 10 square metres commencing 1 January 2008 as the work practices in the past have been inadequate.

STEPS TO TAKE

These steps are required of any person undertaking or supervising the removal of asbestos cement materials from buildings.

- For external work close the doors and windows of the building within 10 metres of the defined work area.
- Rope or safety tape the work area around where sheets are being removed. This includes below a ceiling or roof where sheets are being removed.
- If it is an external work area do not undertake the work if it is windy or wet. The wind will cause the sheets to become dangerous to handle. If raining or surfaces, such as a roof, are wet the roof surface will be slippery. The wind will also disperse the fragments of asbestos cement before these can be vacuumed away.
- If working at heights take the precautions advised by WorkCover.

Before removal of the asbestos cement there are a number of precautions necessary:

- Put on the disposable coveralls;
- Put on a P2 dust mask or half face respirator as a minimum;
- Wear glasses;
- Wear safety shoes/boots. These need to be cleaned before leaving the work area;
- If roof sheets are being removed wear safety helmets as well as suitable full restraint devices;
- Practice safe lifting techniques as asbestos cement sheets are heavy;
- Have a roll of 200 micron builders plastic ready;
- Have asbestos warning tags for the bundles of plastic wrapped asbestos cement sheets, clouts and screws. Preferable to put the clouts and screws into asbestos labelled plastic bags (also 200 microns thick);
- Sealing tape for the wrapped bundles and plastic bags;
- Place the builders plastic on the floor or ground below where the work is being undertaken; and
- Make sure there are no bystanders within 10 metres or preferably anywhere on site – especially do not undertake this work and allow the site or building to be re-occupied before a thorough clean up has been undertaken.

A vacuum cleaner fitted with HEPA filters is needed for the vacuuming. Do not use household vacuum cleaners which do not have HEPA filters.

The Removal of the Asbestos Materials

- Where practical seal the surface of the asbestos cement with a PVA sealant in a spray bottle (e.g. a gardener's pesticide container with a manual pressurising hand pump) or using water.
- Wetting down a previously painted surface where the paint is in good condition is not absolutely necessary. If the sheets have rough or broken edges then these need to be wetted. If there are cracks these need to be wetted. PVA sealant is preferred to just water.
- Gutters need to be wet cleaned and all contaminated material collected into the asbestos waste plastic bags.
- Under no circumstances is high pressure water to be used at all.
- Remove the bolts, clouts and screws attaching the sheets and be careful the sheet does not come away. The sheets have sharp edges and are heavy. These can cause minor injury, back strain, accumulated dust and grit from behind the sheets can lodge in your eyes.
- Lay the sheets onto the builders' plastic set out for this purpose so the sheets can be wrapped. Note this is not the plastic sheet covering the floor or ground. The plastic sheet for wrapping needs to be large enough to completely cover the sheet. The sheets are not to be broken or thrown into bins or trailers.
- If using a building skip or loading directly into a truck or trailer, the internal surfaces need to be lined with the builders plastic (remember this is a minimum of 200 microns thick). This load needs to be securely covered with the builders plastic, strongly taped in place.
- For disposal, landfills need 24 hours notice.
- After removal clean any asbestos cement residue in the roof space, on any building surface especially joints in timber and under the floor if the floor is open. Do the cleaning and inspect. Re-inspect and then re-inspect a third time – experience has shown the author that three inspections are needed.
- Before leaving the work area as a completed job the ground sheet is wrapped up and put in the bin, trailer or truck, the tape sealing finished and then – and only then – remove your protective equipment and dispose of it in the asbestos waste bag. If using a half face respirator wipe this with a damp rag and place the rag in the bag.
- During the work period, if a tea break or lunch happens you need to strip off all the protective equipment before leaving the work area and put on new protective equipment. Your boots need to be wiped with a damp cloth or removed and left in the work area.
- The HEPA filter disposal – if the vacuum cleaner is a hired one, strictly hired for this purpose, arrange with the hire firm what they want done. If it is your own vacuum cleaner then it needs to have the HEPA filter element replaced and the vacuum cleaner wiped down with a damp rag, disposing of the rag in asbestos waste.

	DATE: July 07
PREPARED BY:	Benbow Environmental
GUIDE No. 2	REFURBISHMENT OF BUILDING CONTAINING VINYL TILES

1. PURPOSE

To effectively manage the refurbishment of building areas that are lined with vinyl tiles. These may need to be removed because they are badly damaged, the building needs other repairs and to gain access the vinyl tiles needs to be removed or modifications to the layout of a building are required and walls/ceilings all being removed. In all instances removal of vinyl tiles means that this material is not able to be reused and needs to be disposed of in accordance with strict requirements.

This procedure provides a summary of how to go about removing vinyl tiles.

Responsibilities for using this procedure are listed in the next section.

2. RESPONSIBILITIES

- Building maintenance contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

Removal of vinyl tiles is not possible without small fragments of this material being released. This occurs during removal of the vinyl tiles and therefore exposure to airborne asbestos fibres will occur. These fragments contain bundles of asbestos fibres that are loose on the surface of the fragments. Containment of these are necessary as otherwise the building area will become contaminated with friable asbestos. Clean up of work areas is therefore a necessary step.

Removal of sheets without these cracking is a key objective but is also very difficult to achieve in practice hence there are a number of precautions that are used.

Regulatory Requirements

The regulatory requirements limit the quantity of vinyl tiles that may be removed before using an AS2 based asbestos contractor in NSW. Chapter 10 of the OH&S Regulation 2001 limited the removal to 50 square metres before a licensed asbestos contractor is required. Amendments to this regulation are in place to reduce this quantity to 10 square metres

commencing 1 January 2008 as the work practices in the past have been inadequate.

STEPS TO TAKE

These steps are required of any person undertaking or supervising the removal of vinyl tile materials from buildings.

- For external work close the doors and windows of the building within 10 metres of the defined work area.
- Rope or safety tape the work area around where sheets are being removed. This includes below a ceiling or roof where sheets are being removed.
- If it is an external work area do not undertake the work if it is windy or wet. The wind will cause the sheets to become dangerous to handle. If raining or surfaces, such as a roof, are wet the roof surface will be slippery. The wind will also disperse the fragments of vinyl tiles before these can be vacuumed away.
- If working at heights take the precautions advised by WorkCover.

Before removal of the vinyl tiles there are a number of precautions necessary

- Put on disposable coveralls;
- Put on a P2 dust mask or half face respirator as a minimum;
- Wear glasses;
- Wear safety shoes/boots. These need to be cleaned before leaving the mask area;
- If roof sheets are being removed wear safety helmets as well as suitable full restraint devices;
- Practice safe lifting techniques as vinyl tiles are heavy;
- Have a roll of 200 micron builders plastic ready;
- Have asbestos warning tags for the bundles of plastic wrapped vinyl tiles sheets, clouts and screws. Preferable to put the clouts and screws into asbestos labelled plastic bags (also 200 microns thick);
- Sealing tape for the wrapped bundles and plastic bags;
- Place the builders plastic on the floor or ground below where the work is being undertaken; and
- Make sure there are no bystanders within 10 metres or preferably anywhere on site – especially do not undertake this work and allow the site or building to be re-occupied before a thorough clean up has been undertaken.

A vacuum cleaner fitted with HEPA filters is needed for the vacuuming. Do not use household vacuum cleaners which do not have HEPA filters.

The Removal of the Vinyl Tiles

- Prise up the vinyl tile without breaking it where possible and place the pieces into the asbestos waste bags
- Scrape the remanent pieces with a hand scraper until the floor surface is clean.
- Vacuum the surfaces clean using only a vacuum cleaner with HEPA filters.
- Spray any remaining cracked tile pieces or fragments on the floor or surface that the tiles are laid over.
- Before leaving the work area as a completed job the ground sheet is wrapped up and put in the bin, trailer or truck, the tape sealing finished and then – and only then – remove your protective equipment and dispose of it in the asbestos waste bag. If using a half face respirator wipe this with a damp rag and place the rag in the bag.
- During the work period, if a tea break or lunch happens you need to strip off all the protective equipment before leaving the work area and put on new protective equipment. Your boots need to be wiped with a damp cloth or removed and left in the work area.
- The HEPA filter disposal – if the vacuum cleaner is a hired one, strictly hired for this purpose, arrange with the hire firm what they want done. If it is your own vacuum cleaner then it needs to have the HEPA filter element replaced and the vacuum cleaner wiped down with a damp rag, disposing of the rag in asbestos waste.

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PREPARED BY:	Benbow Environmental
GUIDE No. 3	REFURBISHMENT OF SURFACES PAINTED WITH LEAD BASED PAINTS

1. PURPOSE

To effectively manage removal of paints that contains lead.

Lead in paint is a health risk as the paint can enter the body through contact and frequently with children through ingestion. If the paint is removed and not captured it can contaminate building surfaces, the soil and be carried off during rainfall into natural waterways where it accumulates as sediment. Examples of lead based paints that need removal are shown in these photographs.

2. RESPONSIBILITIES

- Building maintenance contractors
- Painting contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

For buildings where the painted surfaces are elevated or are small in surface area then the most practical and safe way is to use paint removing powered brushes connected to a vacuum system. The other alternative is chemical stripping.

Any paint that is removed needs to be collected and disposed of as a hazardous waste material using procedures similar to those outlined for asbestos waste.

STEPS TO TAKE

These steps are required of any person undertaking or supervising the removal of lead based paints.

- Close doors and windows of adjoining rooms;
- If the lead based paints are on external surfaces, close the doors and windows within 10m of the work area;
- Rope or safety tape the work area;
- If it is an external area, do not undertake the work if it is windy or wet; and
- If working at heights, take the precautions advised by WorkCover.

Before removal of the paint there are a number of precautions necessary.

- Put on disposable overalls, these are to be the hooded type.
- Put on a full-face respirator unless an assessment has been made using the respiratory protection program in accordance with AS/NZS 1715 has been appropriately undertaken.
- Ensure facial hair does not impede the fit up of the respirator.
- If a full-face respirator is not required, use safety glasses.
- Wear safety shoes/boots.
- Wear safety gloves.
- Place builders plastic on the surface below the work area. If working at height use a vacuum powered brush.
- Ensure there are no bystanders within 10 m.
- Do not allow the building areas or yard areas within the work zone to be re-occupied until a clean up has been conducted.
- Cleaning is best undertaken using a vacuum cleaner. This needs to be an industrial vacuum cleaner for particulates hazardous to health – refer to AS/NZS 3544.
  Advise the hire company that you are to use the vacuum cleaner for collecting lead based paint and ask how they require it to be returned to them.
  On completion of the work or at the end of the day, clean up the area, remove the plastic and place it along with the protective overalls into a heavy plastic bag. Use a damp cloth to wipe down the respirator, safety glasses and boots. Dispose of the safety gloves in the plastic bag. The plastic bag will be used to contain the vacuum cleaner filter if this is of the discarded type. Arrange with a waste contractor to remove the waste bag.
- During the work period, if a tea or lunch break happens, you need to strip off all the protective equipment before leaving the work area and put on new protective equipment when you return. Your footwear needs to be wiped with a damp cloth or removed and left in the work area. Wash your face and hands thoroughly especially before eating.

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GUIDE No. 4	REPAINTING OF AN ASBESTOS CEMENT SURFACE

1. PURPOSE

Asbestos cement surfaces can have the paint deteriorate and either bubbles form or the paint begins to flake. The repainting of the surface requires the damaged paint to be removed. Examples are shown below.

The danger in removing the damaged paint surface is in abrading/damaging the asbestos cement surface and causing the release of asbestos fibres. There is also the danger on buildings painted prior to 1976 that the paint may contain lead. If this is known or even suspected then refer also to Work Practice Guide No.3.

2. RESPONSIBILITIES

- Building maintenance contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

The damaged paint can be removed using three techniques:

- Vacuuming;
- Dry brushing with a nylon bristled brush; and
- Chemical stripping.

Vacuuming is expected to be the easiest technique.

If the paint is known to contain lead then there are additional safeguards required in Work Practice Guide No.3.

The surface of the paint can be smoothed using fine sandpaper, provided the undercoat surface is not penetrated.

If the asbestos cement surface has the cement lifting and asbestos fibres are clearly visible then the cladding will need to be replaced and not repainted as the risk of releasing asbestos fibres is high.

Removal of the flaking and damaged paint surfaces using high pressure water or air is not permitted by legislation.

The deteriorated paint surface can be made to present better if a sealing coat is used that will fill the broken surface of the previous paint. An alternative is to use a thin coating of a filling material.

Under no circumstances abrade the surface of the asbestos cement.

Use normal precautions for your personal safety, use at least the minimum personal protective equipment to protect your eyes and respiratory system.

If lead based paints exist, then use the personal protection outlined in the procedure that deals with lead based paints.

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GUIDE No. 5	DISPOSAL OF ASBESTOS CONTAINING MATERIAL

1. PURPOSE

To dispose of asbestos containing materials. Asbestos containing materials once removed from a building or the grounds of your site need to be safely stored until offsite disposal can be organised.

Small quantities if stored on site need to be kept safely in a sealed plastic bag and be clearly labelled. Larger quantities need to be sealed as discussed in Work Practice Guide No.1.

Asbestos containing materials are a hazardous waste and disposal is restricted to approved landfills.

2. RESPONSIBILITIES

- Building maintenance contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

The procedure starts with the asbestos containing material being sealed inside a labelled heavy plastic bag or wrapped and sealed in heavy plastic as discussed in Work Practice Guide No.1.

Landfills available for disposal can be found on th Waste Service NSW website www.wasteservice.nsw.gov.au . For information, the NSW EPA, have changed their name to the Department of Environment and Climate Change (DECC).

Telephone numbers for contact are:

- DECC – (02) 9795 5000
- Waste Service NSW – (02) 9934 7000

Local councils can also advise. A 24 hour notice is needed.

At the land fill you will be directed to the area dedicated for asbestos wastes. Your vehicle may require inspection before leaving the landfill site. When unloading the wrapped sheets make sure the plastic wrapping is not ripped or torn.

You will be issued with a tipping receipt. Maintain this in your business records as local councils and WorkCover may ask for proof of proper disposal.

	DATE: July 07
PREPARED BY:	Benbow Environmental
GUIDE No. 6	REMOVAL OF ASBESTOS CEMENT FRAGMENT FROM UNDER BUILDINGS OR IN THE GROUND

1. PURPOSE

To guide the safe removal of fragments, pieces and products containing asbestos cement from under buildings or in the ground.

Access to the underneath of buildings where these materials exist needs to be avoided due to the high hazard to health that exists. Until the asbestos containing materials are removed the access to the underneath of buildings needs to be prevented by a safety barrier.

Isolated pieces of asbestos cement found in the ground and in roadbased carparks can be removed without significant risk of exposure to airborne asbestos fibres, provided this procedure is followed.

The edges of the asbestos cement contain large numbers of free asbestos fibres and if disturbed can be readily released in a person's breathing zone. Gradual release of asbestos fibres occurs and can contaminate the building's surfaces and adjacent building surfaces with asbestos fibres.

2. RESPONSIBILITIES

- Building maintenance contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

This procedure is presented in two parts.

Part 1 – Removal of isolated pieces of asbestos cement

Isolated pieces of asbestos cement can be safely removed and placed in an asbestos waste bag through use of basic safety measures.

- Use disposable gloves;
- Use a P2 disposable dust mask;
- Remove the pieces of asbestos cement and immediately place it into the site's asbestos waste bag;
- Place the gloves and mask in the bag and seal it; and

- Maintain good hygiene practices.

Part 2 – Removal of redundant materials and numerous pieces of asbestos cement

It is very unlikely that the quantity found would exceed 10 square metres. If it does then an AS2 licensed asbestos contractor needs to be engaged to remove unbroken product.

If the asbestos containing material is damaged then an AS1 licensed asbestos contractor needs to be engaged.

WorkCover NSW has details of contractors who hold these licenses.

Removal must not be undertaken by yourselves under any circumstances.

At the land fill you will be directed to the area dedicated for asbestos wastes. Your vehicle may require inspection before leaving the landfill site. When unloading the wrapped sheets make sure the plastic wrapping is not ripped or torn.

You will be issued with a tipping receipt. Maintain this in your business records as local councils and WorkCover may ask for proof of proper disposal.

	DATE: July 07
PREPARED BY:	Benbow Environmental
GUIDE No. 7	MODIFICATIONS TO ELECTRICAL DISTRIBUTION BOARDS

1. PURPOSE

Electrical panels frequently have boards that contain asbestos fibres. Examples are provided below.

These boards need to have asbestos warning labels attached. This procedure assists in guiding your management of this issue.

2. RESPONSIBILITIES

- Building maintenance contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

Electrical contractors are provided with the attached procedure and this is the document to be followed.

NSW Electrical Industry Asbestos Awareness Committee (EIAAC)

Document No: EIAAC1 Amendment No: 0 Approved By: EIAAC Approval Date: 27th May 2002

INDUSTRY MODEL PROCEDURE No. 1	EIAAC 1 - ASSESSMENT OF COMMERCIAL AND RESIDENTIAL METERING/ ELECTRICAL PANEL INSTALLATIONS FOR POTENTIAL ASBESTOS CONTAINING MATERIALS

1.0 PURPOSE

The purpose of this Industry Model procedure is to document the legislative and operational requirements for the inspection of metering/ electrical panels at commercial and domestic premises to determine the presence of asbestos containing materials.

The procedure has been developed for works to ensure:

- potential asbestos containing materials are identified prior to the meter/ electrical panel works;
- the correct procedures for the handling of asbestos materials are followed to minimise the release of asbestos fibres and the possible exposure of personnel and the general public;
- compliance with the NSW Occupational Health and Safety Regulation 2001 made under the NSW Occupational Health and Safety Act 2000.

This procedure shall be known as the EIAAC Industry Model "Procedure for the Assessment of Commercial and Residential Metering/ Electrical Panel Installations for Potential Asbestos Containing Materials".

2.0 SCOPE

The following procedure is provided as an Industry Model for the Assessmet of Commercial and Residential Metering/ Electrical Installations for Potential Asbestos Containing Materials Any electrical mounting panel works required where the presence of asbestos containing materials is suspected or confirmed, will be conducted in accordance with the EIAAC Industry Model Procedure 2 "Minor Works on Asbestos-Based Electrical Mounting Boards for Domestic and Commercial Metering/Electrical Installations".

3.0 REFERENCES

- NSW Occupational Health and Safety Regulation 2001 made under the NSW Occupational Health and Safety Act 2000.
- The EIAAC Guidelines To Working On Electrical Meter Panels Identified As Containing

Asbestos, May 2002.

- Asbestos Code of Practice and Guidance Notes, August 1988:
  - Guide to the Control of Asbestos Hazards in Buildings and Structures [NOHSC: 3002(1988)], and
  - *Code of Practice for the Safe Removal of Asbestos* [NOHSC: 2002(1988)]. published by the National Occupational Health and Safety Commission (WorkSafe Australia).

4.0 DEFINITIONS

Asbestos means the fibrous form of those mineral silicates that belong to the serpentine or amphibole groups of rock-forming minerals, including actinolite, amosite (Brown Asbestos), anthophyllite, chrysotile (White Asbestos) crocidolite (Blue Asbestos) and tremolite.

Asbestos Work means work undertaken in connection with a construction work process in which exposure to asbestos may occur and includes any work process involving the use, application, removal, mixing or other handling of asbestos-containing material.

Bonded Asbestos Material means any material (other than friable asbestos material) that contains asbestos.

Bonded Asbestos Removal Work means work in which bonded asbestos material is removed, repaired or disturbed.

Friable Asbestos Material means any material that contains asbestos and is in the form of a powder or can be crumbled, pulverised or reduced to powder by hand pressure when dry.

Lebah, Zelemite, Ausbestos are trade names of panels manufactured from an asbestos/resin composite and used in electrical applications.

Meter/ Electrical Panels includes all work on Industrial, Commercial and Residential meter/ electrical panels.

5.0 SCOPE

The following procedure is provided as an Industry Model for the inspection of electrical metering installations at domestic and commercial premises for metering or electrical panel works. The inspection is required to make a qualitative assessment of the electrical mounting board and the lining and insulation materials inside the metering/electrical cabinet for the possible presence of asbestos containing materials.

Only personnel who have completed an approved "Asbestos Awareness Training Course" will conduct the works described in this procedure.

5.1 ACTIONS

Older electrical cupboards and switchboards may include electrical mounting boards that contain asbestos. The asbestos is typically chrysotile (white asbestos) and is bonded into the matrix of the material. In some installations, the internal face of the cabinet may also be lined with asbestos cement (AC) sheet or with asbestos millboard (a soft white cardboard type material that contains asbestos).

The following four parameters will assist with the qualitative assessment for the possible presence of asbestos materials:

- Age:
  The age of the installation (mounting boards, millboard and cement sheet products in pre-1988 installations are assumed to contain asbestos);
- Labelling:
  Any boards which are marked on the rear face with "Zelemite, Lebah, Ausbestos, etc." or with any signage indicating the presence of asbestos, are assumed to contain asbestos;
- Colour & Odour:
  Any older black mounting boards with a smell of bitumen or coal tar are assumed to contain asbestos (asbestos has no odour but the composite binder smells of coal tar).
- Other Materials:
  In addition to asbestos-based electrical backing boards, other asbestos containing materials may be encountered in electrical metering installations. Typically, these materials include: asbestos millboard and asbestos cement (AC) sheet. Any cement sheet (colloquially known as 'Fibro') products encountered will be assumed to contain asbestos. Any millboard materials (soft cardboard-like material) will be assumed to contain asbestos. Care should be taken to avoid disturbance of these materials.

Examples of typical asbestos materials that may be encountered at metering/ electrical installations are shown in the attached photographs.

Installations where any of the above mentioned parameters are present will be assumed to contain asbestos.

Note:
Any dust encountered inside the cabinets of pre-1988 installations is assumed to be contaminated with asbestos (asbestos boards may have been removed).

6.0 AUTHORITIES AND RESPONSIBILITIES

Employers have responsibility for ensuring that appropriate procedures and training are provided to employees for the Assessment of Commercial and Residential Metering/ Electrical Installations for Potential Asbestos Containing Materials.

This procedure is provided as an Industry Model.

7.0 DOCUMENT CONTROL

Content Co-ordinator - PENDING
Distribution Co-ordinator - PENDING

The NSW Electrical Industry Asbestos Awareness Committee (EIAAC)

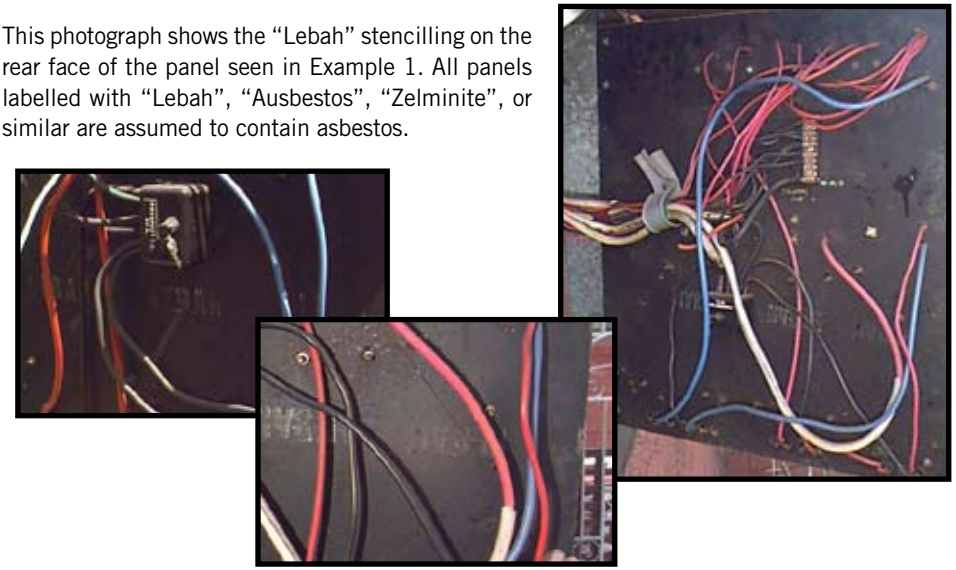
Chair: Eddie Caruana 0407 416058 **Secretary:** Paul Claridge- Integral Energy Ph (02) 9853 6751
Committee Members: John Lee - WorkCover, Steve Butler - ETU, Peter McPherson - ETU, Rod Iland - NECA, Robert Lee - Integral Energy, Bob Cook - Country Energy, Greg Paterson - Country Energy, Chris McGlynn - Energy Australia, Neil Denby - Energy Australia, Corresponding Member, Adrian Ray - Australian Inland Energy

ANNEXURE 1

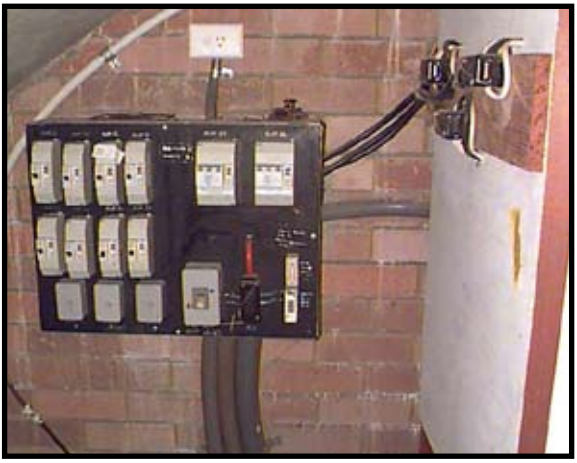
This photograph is an example of an asbestos-based electrical backing board in a typical domestic installation. Note the dust in the bottom of the cabinet and on the fittings. All dusts inside the cabinet are assumed to be contaminated with asbestos.

ANNEXURE 2

This photograph shows the "Lebah" stencilling on the rear face of the panel seen in Example 1. All panels labelled with "Lebah", "Ausbestos", "Zelminite", or similar are assumed to contain asbestos.



ANNEXURE 3



The top photograph shows an asbestos-based electrical backing board inside a cupboard at a commercial premises. The right-hand side of the cupboard is lined with asbestos cement (AC) sheet.

The bottom photograph shows a typical domestic meter box. Although the metering equipment is mounted onto a timber board, the internal faces of the cabinet are lined with asbestos millboard.

	DATE: July 07
PREPARED BY:	Benbow Environmental
GUIDE No. 8	SEALING BROKEN OR CRACKED SURFACES OF ASBESTOS CONTAINING MATERIALS

1. PURPOSE

Asbestos cement will be present in many Church buildings, halls and residences. This is a brittle material and can crack, edges can become damaged and holes accidentally made. This procedure assists with what to do if this occurs. The intention at all sites is to have no damaged surfaces untreated at any time.

2. RESPONSIBILITIES

- Building maintenance contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

Asbestos cement edges and surfaces need to remain in tact. Unpainted surfaces do not need to be painted. Damaged edges, holes and cracks need to be sealed with a membrane forming paint. Emerclad or equivalent is recommended for this purpose. Bunnings and Mitre 10 usually have small containers in stock. This coating, and similar alternative products, form a tough membrane that flexes with changes in temperature and have a long life. If applying the coating wear disposable coveralls and P2 disposable dust masks. The brush needs to be washed after use and disposed of. These materials are acceptable for disposal as domestic waste and alternatively can be kept in with any asbestos waste held in a plastic asbestos waste bag on site.

	DATE: July 07
PREPARED BY:	Benbow Environmental
GUIDE No. 9	REMOVAL OF ASBESTOS CEMENT FROM NATURE STRIPS OR FOOTPATHS

1. PURPOSE

Asbestos cement in building rubbish has frequently been used as a fill material in the past as it consolidates and packs well. Frequently this material may be found in footpath verges as a result. Broken pieces and sheets of asbestos cement are also being indiscriminately dumped to avoid landfill tipping costs.

This procedure provides guidance on what action to take if this occurs at your site.

It is important, as the asbestos cement is friable in this state, the fragments of asbestos fibres can spread onto your site and exposure to parishioners and visitors needs to be avoided.

2. RESPONSIBILITIES

- Building maintenance contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

Refer any such incident to your local council, also to the WorkCover NSW Asbestos Hotline 13 10 50 and if no action is being taken refer to the DECC. Document the date, time and contact person.

If these regulatory authorities take no action as a result of your telephone calls then it will be necessary to contact the Diocese.

	DATE: July 07
PREPARED BY:	Benbow Environmental
GUIDE No. 10	SCHEDULE FOR REINSPECTING BUILDINGS FOR HAZARDOUS MATERIALS

1. PURPOSE

Buildings and grounds that have been found to contain hazardous materials need to be reinspected to be aware of defects in the condition of these materials and the need for corrective steps to be taken.

Examples of relevant aspects are:

- Lead based paint is peeling;
- Asbestos cement cladding is cracked;
- Asbestos cement fragments are on the surface of the grounds or footpath verges; and
- Labels have peeled off.

The reinspection programme is a routine observation. Recommendations are provided in this procedure.

2. RESPONSIBILITIES

- Building maintenance contractors
- Churchwardens, Parish Councillors, Administrators, property maintenance personnel

3. PROCEDURES

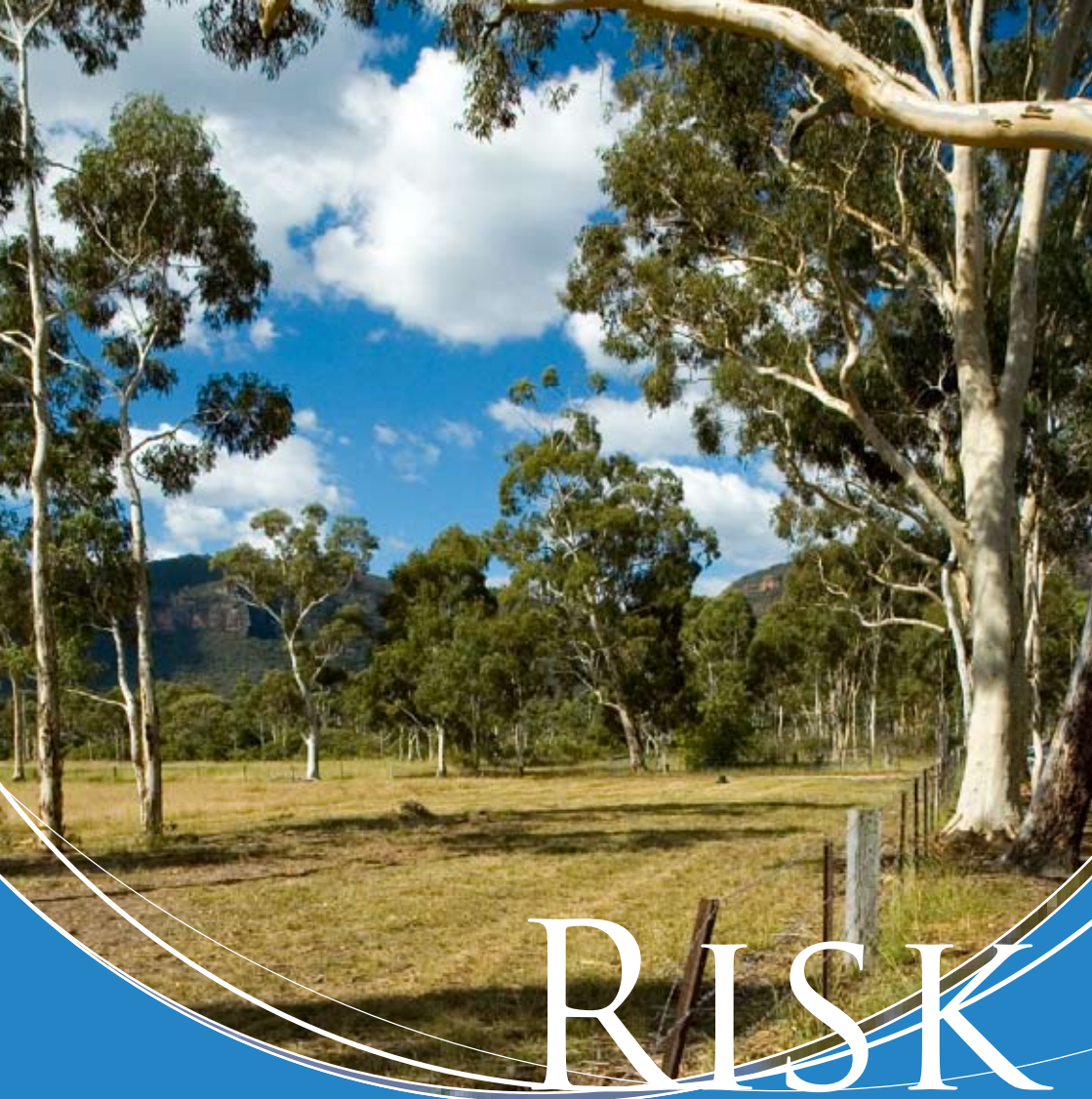
When to reinspect?

Reinspection needs to take place under the following circumstances.

- At least every three years or sooner if risk of a hazard existing is known. If a hazard exists then reinspection would be immediate.
- Likely hazards that can occur are shown in the hazardous materials audit report. The most likely ones are:
  - Asbestos cement cladding is cracked, damaged or a piece has come away;
  - Lead based paint is coming away from the surface;
  - Asbestos cement fragments found on grassed areas, verges along site footpaths in front of your site.
- On completion of a building refurbishment programme your site's hazardous materials

register needs to be updated. This will require the changes that have been made to be added to your copy of the register and also advised to the Property Trust.

- Photographs of the work completed are a most useful way of documenting the changes that have occurred. The date recorded on these again helps to record the essential information that is relevant.



RISK MANAGEMENT