



RISK

MANAGEMENT

MODULE 2

BUILDING ENVIRONMENT 1
HAZARDS - ELECTRICAL, LIQUIDS,
GLASS, NOISE

MAXIMISING MINISTRY BY MINIMISING HARM

July 2010

RISK MANAGEMENT

INTRODUCTION

This is the second 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).

“ A parish has a general duty of care to ensure ...
health, safety and welfare at work.”

This module looks at the risks and issues involved with:

- Electrical appliances, equipment and wiring
- Hazardous substances (e.g. chemicals, flammable liquids)
- Plate glass
- Managing contractors
- Noise

What is risk?

For our purposes, a risk or hazard is anything which potentially puts at risk:

- The health and safety of your ministry team (both paid and volunteers), contractors, members of the congregation, visitors, adults and children.
- The good order of our property and our equipment.
- Our financial well being.
- Our reputation and relationships with people inside and outside of our parish.

This module takes another step toward complying with current Occupational Health and Safety legislative requirements.

If you have already done work on these areas, this is designed to compliment that work. However, please check that you have covered all the subject matter discussed in this module and give appropriate attention to any outstanding items.

Reminder: A parish has a general duty of care to ensure, so far as is reasonably practicable, the health, safety and welfare at work for ministry staff, other employees, volunteers ministering in any way in our parishes and visitors to our site(s) or the functions that we run. This duty of care also extends to contractors and sub-contractors while they carry out work on our premises.

Step 3 to 7 of the Risk Management Plan

Please refer to the section in the Parish Risk Management kit entitled **‘Developing a Risk Management Plan’**. You will need to apply steps 3 to 7 with regard to the risk areas of electrical appliances, equipment and wiring, hazardous substances, plate glass, managing contractors and noise.

The Steps are:

3. **Identify** the risks
4. **Analyse** the risks identified
5. **Evaluate** the risks
6. **Treat** and control the risks
7. **Review** and **monitor**

For specific details please refer to pages 2 to 10 in the section **‘Developing a Risk Management Plan’**.

ELECTRICAL APPLIANCES, EQUIPMENT AND WIRING

Electrical hazards are one of the prime areas of risk that we face every day as we use our premises. Electricity should never be taken for granted. An electric shock from 240 volts can be fatal. Electrical faults are also a frequent cause of fire.

An electric shock can be as slight as a ‘tingling’ sensation that is felt when using electrical appliances, an outside tap or other metal fittings. This is often an indication of a much greater problem and must be investigated immediately.

Source: Integral Energy: Living Safely with Electricity

The parish has a duty of care to ensure that all electrical items are maintained and remain safe for use, and that any unsafe items are not used.

“ Electrical hazards are one of the prime areas of risk that we face every day... ”

Electrical work

Only allow licensed electricians – whether paid or volunteer - to work on electrical systems or appliances. Please make sure that they can provide evidence of their qualifications (i.e. a current electrical contractor’s licence) as well as their insurance cover (refer section Managing Contractors on page 14). The parish can also perform an online licence check at the web site of the Department of Fair Trading (www.fairtrading.nsw.gov.au) or by phoning the department on 133 220. Do not engage an unqualified or unlicensed person to undertake electrical work for the parish, as it may be illegal and the risk of an electrical accident is not worth the money that may be saved. If you have expensive sound or lighting equipment, engage a licensed electrician who has specific knowledge of these systems.

For a list of licensed electrical contractors, look under ‘electrical contractors’ in the Yellow Pages (www.yellowpages.com.au).

Do not carry out ‘patch-up’ work on appliances. Discard any appliances that cannot be professionally repaired. Again, saving a few dollars is not worth risking electrocution.

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Electrical wiring

Deteriorating electrical wiring causes many fires, as well as electrocution. It is recommended that the electrical wiring of your site(s) be inspected annually by a licensed electrician.

In consultation with your electrician, attention should be given to:

- Old buildings
- Wiring that has been added since the building was constructed
- External lighting
- Evidence of water leaks
- Changes to wiring since the last inspection
- Any increased electrical load on the system (i.e. power points, circuits and the switchboard)
- Condition of power points, light switches and switchboard
- Condition of fans and other electrical switches
- Changes to buildings or changes to grounds where electrical wiring is involved

Switchboards

Switchboards, switchrooms, control panels etc have live electrical components and must remain locked. Key access should be restricted, for example, to the wardens and the office administrator.

Safety switches (residual current device)

In the interest of electrical safety, it is strongly recommended that the parish install safety switches.

“ The best protection is usually gained by fitting the safety switch at the switchboard. ”

A safety switch or residual current device is an earth leakage device which is designed to protect people from electrocution by cutting the power in the event of a current flow to earth. Therefore it gives protection when a person comes into contact with a live electrical circuit that can occur as a result of faulty wiring, appliances or electrical leads.

The best protection is usually gained by fitting the safety switch at the switchboard. However, there may be a complication with some dimmers and certain types of lighting and it may be appropriate to install them on the power circuits. Please seek guidance from a licensed electrician.

Please note: A residual current device is quite different from an overload circuit breaker (fuse) which is designed to protect the electrical power distribution system. A person can still be electrocuted without the fuse blowing.

Child safety

While safety switches are designed to prevent electrocution, have plastic safety plugs inserted in power points where young children have access (e.g. crèches, parent's rooms, playgroup areas).

Surge protectors

Surge protectors are designed to protect electrical equipment from surges in power, including those caused by a lightning strike.

It is recommended that surge protectors are installed at least at the appliance level for all computer, video and musical equipment. For greater protection, consider installing a surge protector on the main switchboard.

Surge protector power boards may not provide total protection for your particular site and situation, so please seek guidance from a licensed electrician.

Electrical cabling

As electrical wiring and cables are usually placed in the cavities of walls and in ceiling spaces, care needs to be exercised if anyone needs to enter a ceiling space or cut a hole in an inside or outside wall. This also applies to the gas and water lines present in a building.

Underground cables, pipes and service easements

Be sure that you know the location of any underground electrical cables, gas and water pipes, sewerage and drainage lines. Have a diagram of your site with the location and description of the cables and pipes clearly marked so it can be drawn to the attention of anyone working on your site.

“ ...have plastic safety plugs inserted in power points where young children have access. ”

For assistance contact 'Dial Before You Dig' on 1100 or go to their website, www.dialbeforeyoudig.com.au. Alternatively, contact the various authorities who supply services to or past your site.

Please note: A contractor who is to perform digging or excavation on your site also has the responsibility of locating underground services and upon completion of the works should record the actual location on 'as built' drawings.

Power boards, extension leads and cables

Check the condition of power boards and extension leads regularly, discarding them if they are damaged in any way. To ensure the load on power boards does not exceed the capacity of the power point they are connected to, use power boards that have an overload cut-out mechanism.

Where possible, avoid using extension leads by installing additional power points. If at all possible, ensure extension leads are not spread across passageways. Where an extension lead is used, ensure that it is taped to the floor for its entire length to avoid it becoming a trip hazard. Other electrical leads, such as microphone cables, can also be a trip hazard and particular attention should be given to the area where musicians perform.

“ Check the condition of power boards and extension leads regularly... ”

Tip: If possible, feed all electrical leads and cabling underneath the floor of the building to avoid trip hazards.

Please note: If you have a heritage building, it will be necessary to consider the impact of any works undertaken on the building. If you have a building listed on the State Heritage Register, you should consult your heritage architect or contact the Property Trust before any work commences.

Inspection, testing and tagging

Regular testing and tagging is a statutory requirement for all electrical equipment that is used on any of your sites or used by you on a site that you do not own, where that equipment could be affected by a hostile working environment.

A hostile working environment is one in which an item of electrical equipment is, in its normal use, subject to operating conditions that are likely to result in damage to the item of equipment. This damage could be mechanical or exposure to moisture, heat, vibration, corrosive substances or dust.

Examples are electrical appliances used in kitchens and laundries, portable equipment such as sound systems, vacuum cleaners, floor polishers, outdoor lighting, electric mowers and blowers.



TO ENSURE THAT...

the load on power boards does not exceed the capacity of the power point they are connected to, use power boards that have an overload cut-out mechanism.

RISK MANAGEMENT

Inspection, testing and tagging (cont)

Testing and tagging must be carried out by a qualified person and records must be kept that detail:

- the name of the person who has performed the test
- the date of the test
- the results for each item inspected
- the date of the next inspection

Testing and tagging does not apply to electrical appliances in a non-hazardous environment such as an ordinary office where computers, photocopiers and printers are used.

If you are unsure whether or not the working environment is 'hostile', take the cautious approach and have the item tested and tagged. This could apply to such items as extension leads that are regularly set and then put away or portable heaters.

Even if there is no obligation to have appliances tested and tagged, you should conduct routine visual checks and have appliances repaired or replaced as required.

Please note: It is necessary to obtain documentation of any significant modifications to electrical circuits from the licensed electrician performing the work, and to keep this documentation available for any other licensed electricians who undertake work in the future.

Water and electricity

It is widely known that water and electricity do not mix, so it is important to pay particular attention to electrical appliances and cords near wet areas such as kitchens and bathrooms. Also, if the parish has external power points, ensure that they are waterproof and in good condition.

If an area floods so that power points are affected, **immediately** turn off the power at the main switchboard.

“...pay particular attention to electrical appliances and cords near wet areas.”

Serious electrical accidents

Serious electrical accidents must be reported by the wardens to the electricity provider or the Office of Fair Trading (unless it was an incident already notified to WorkCover - see Module 1). Serious electrical accidents include those where a person dies, suffers permanent disability, is hospitalised, receives treatment or is unable to work for a continuous period of seven days. You should not disturb the site of such accidents before inspection by an authorised inspector, unless you need to:

- make the area safe
- assist trapped or injured persons
- avoid injury or property damage.



IN AN EMERGENCY:

1. DO NOT touch someone who may be receiving an electric shock
2. TURN OFF the electricity at the source and unplug any leads
3. Unplug the appliance or extension cord the person is touching
4. Only attempt to assist the person if you are certain the electricity has been disconnected
5. Call emergency services

Source: Integral Energy: Living Safely with Electricity

HAZARDOUS SUBSTANCES

At first glance, a church may not seem to have many harmful substances or chemicals. However, on closer inspection, there may be more than originally thought. For example, mower fuel, gas bottles for the barbecue, toilet cleaning chemicals, dishwasher powder, washing detergent, cleaning agents, insect sprays (particularly surface sprays), garden poisons and fertilisers are all potentially hazardous if misused or stored inappropriately.

(Asbestos - another hazardous substance - will be dealt with specifically in Module 3.)

To fulfil Occupational Health and Safety requirements, every person who uses chemicals must know what they are, how they should be stored and, where necessary, what safety equipment to use.

Chemicals can cause harm through inhalation, ingestion, injection and / or absorption through the skin which could result in severe illness, disfigurement or death.

There are a number of safety measures to apply in managing the risks:

- **All chemicals, including all kitchen detergents and cleaning agents, must be kept out of the reach of children in a locked or high cupboard.** Many kitchens have cleaning materials under the sink for convenience but they are still accessible to children. While it is ideal for children to be always supervised in a kitchen, this does not always happen and harmful materials should therefore be locked or kept out of reach. The same applies for bathrooms and toilet facilities.
- **All substances must be clearly labelled.** The label contains essential information about the product, including warnings and what to do in an emergency. If a label falls off a container, either re-attach it so that the information is clear, or safely discard the container. It is extremely dangerous to have unlabelled containers in the kitchen, bathrooms or sheds.
- **Obtain a Material Safety Data Sheet (MSDS) for each substance from the product manufacturer.** This is a legal requirement in any workplace for employees such as ministry staff and other employed lay or administrative staff. The MSDS provides more detailed health and safety information on the substance. Keep these in a folder marked 'Material Safety Data Sheets' where the containers are stored (e.g. on the inside of a cupboard door). There is also an Australian website www.msds.com.au, where, for a fee, you can obtain MSDS for many common household chemicals.

Tip: Where practical, the same material should be used for a given task (e.g. use the same dishwashing liquid) as you only need to keep one MSDS. If you use different brands or variations, you should have a MSDS for each one.

- **Gas bottles** must be stored outside of buildings, as gas leakage in a confined space could result in an explosion, leading to serious injury or death and/or considerable property damage. The appropriate storage place is in a lockable wire enclosed space or in a well ventilated, lockable garden shed.
- **Petrol containers, garden poisons and sprays** must not be stored inside buildings where people meet. These should be stored in a well ventilated, lockable garden shed, on a high shelf, out of the reach of children.
- Use **protective clothing** as appropriate, particularly when using poisons and sprays. Some examples are gloves, enclosed footwear, long-sleeved shirts and trousers, head covering, gas and dust masks.
- Particular care needs to be exercised in **cleaning up spills** of hazardous substances. Avoid the generation of dust or aerosols and wear protective clothing as required.
- A **register** should be kept of all hazardous substances and be made available to any employee, contractor, volunteer etc working on your site.

“Petrol containers, garden poisons and sprays must not be stored inside buildings where people meet.”

Poisons information

Call the Poisons Information Centre on 131 126 from anywhere in Australia, 24 hours a day, 7 days a week for information on poisoning, drug interactions, bites and stings.

Gas leaks

If there is a smell coming from an appliance or from the piping near the gas meter, **immediately** turn off the gas at the meter and call a licensed gas fitter.

If the gas leak is coming from the meter, turn it off and contact your gas supplier **immediately**.

Gas and gas cylinders

If your parish uses gas for cooking and/or heating, it is recommended that gas connections and appliances be checked annually by a licensed gasfitter (many plumbers are also licensed gasfitters – look under ‘plumbers and gasfitters’ in the Yellow Pages - www.yellowpages.com.au).

Gas cylinders (including those used for barbecues) must be inspected and tested every 10 years. The last test date is stamped on the cylinder near the valve on the ‘collar’ or on the footing of some small cylinders. Records must be kept of testing.

PLATE GLASS

Plate glass is commonly found in swing doors, sliding doors or fixed walls at varying heights and large windows which start below waist level.

“ Plate glass must have presence-of-glass indicators... ”

Presence-of-glass markers

Plate glass **must** have presence-of-glass indicators (decals), or some other visual barrier across the panel to reduce the risk of someone mistaking the glass panel for an opening.

Presence-of-glass markers can be purchased from a hardware store or glazier, or you can have them fitted by a glazier or qualified locksmith.

Non-safety glass

Properties that are less than 10 years old will generally have safety glass installed in panels that people may impact. In any case, it is recommended to determine whether it is safety glass or not. Beware of any glass panel that has been replaced, even in very recent years, by volunteers who may have purchased the glass direct from a supplier without specifying safety glass.

On impact, non-safety glass can break into shards that could cause severe injury, possibly resulting in death. It is all too easy for someone to run into a glass panel or trip and fall against it. Even pushing a door open by the glass, or stopping a closing door by the glass, can result in breakage and shattering.

A number of legal cases have shown that property owners may be exposing themselves to the risk of litigation if glass on their property is found to be unsafe or non-compliant with mandated standards.

One way of managing these risks lies in Australian Standard AS 1288-2006. Under this standard all glass should be labelled with the Australian Standards marker 'AS/NZS 2208' accompanied by the commonly known Australian StandardsMark 'assurance of quality'. When replacing glass or inspecting your existing glass, look for these markings.

It may be necessary to arrange for a glazier to look at your site in order to determine whether or not you have safety glass and to make appropriate recommendations.



MANAGING THE RISK

1. Install safety glass
2. Attach safety film

RISK MANAGEMENT

Managing the risk

Install safety glass

Ideally, all non-safety glass should be replaced.

Current safety glass is either toughened glass or laminated glass. Toughened glass is generally heat-strengthened with a safety film on both sides. Laminated glass has a plastic film interlayer between two sheets of glass. The glass may break upon impact, but the pane is held together by the plastic interfilm.

When installing safety glass, remember that all glass should be labelled with the Australian Standards marker 'AS/NZS 2208' and accompanied by the commonly known Australian StandardsMark 'assurance of quality'.

Attach safety film

If replacement with safety glass is cost prohibitive, it is recommended that safety film be fitted.

Safety film can be retrofitted to existing glass panels. It is designed to hold shattered glass in place, thereby reducing the risk of injury, should the glass be broken. Please consult a glazier and ensure that the safety film supplied is certified under the Australian Standard AS/NZS 2208.

MANAGING CONTRACTORS

The parish has a general duty of care to take reasonable steps to prevent or minimise risks to the health and safety of people from parish property or activities. This includes contractors engaged to work on our sites from time to time.

Conversely, contractors (including sub-contractors) owe a duty of care to the parish and its members to carry out their work in a safe manner. It is therefore important to implement a system of risk management for the engagement of contractors, so that potential risks to health and safety are identified, assessed and controlled.

“ It is... important to implement a system of risk management for the engagement of contractors ”

Before a contractor commences work they are to be ‘inducted’ to your site(s).

Induction steps to be undertaken by the parish:

- Provide a copy of the parish’s Occupational Health and Safety Policy and relevant procedures
- Provide details of the emergency evacuation procedures
- Identify and describe any particular risks to health and safety where the contractor may be working which they would not be expected to know about.
- Advise the contractor of the general location of any water pipes, gas lines or cables that may be near where they are working
- Let the contractor see the asbestos register. (Please note: the subject of asbestos, including details of the register, will be covered in Module 3)
- Complete the Contractor Safety Plan (refer below)

Remember: It is the contractor’s responsibility to determine the exact location of underground cables and pipes.

Contractor Safety Plan

The Safety Plan includes a number of actions to be undertaken:

- Sight the contractors OH&S General Induction card for construction work in NSW. This is a credit-card sized card, usually white, issued by WorkCover and advises that the person has completed a required OH&S course.
- Obtain the name of their Workers Compensation insurer, policy number and indication that it is current (receipted renewal certificate or certificate of currency).
- Obtain details of the contractor’s public liability and contractor’s all risks insurance policies: name of insurer, policy number, amount of cover and indication that the insurance is current.
- Ask the contractor if they carry professional indemnity insurance. If so, obtain details of insurer, policy number, amount of cover and indication that the insurance is current.

Contractor Safety Plan (cont)

The Contractor must:

- Identify the specific risks associated with the contracted work.
- Specify how those risks will be controlled.

Tip: Most contractors will have details of their insurances readily available. If not, they should be able to obtain them quickly. Advise them that you will need these details when you arrange for the work to be done. If you use the same contractor from time to time, obtain their details, keep them on file and update annually.

- If they are a sole trader or member of a partnership, they do not need to carry workers compensation insurance. While not a legal requirement, they may carry personal disability (Income Protection) insurance and it would be prudent to obtain the name of their disability (Income Protection) insurer and the policy number. For anything other than short term “one off” contracts, it would be wise to ensure that they do carry disability insurance.

Other matters to consider:

- Will there be other activities going on at the same time? It may be necessary for the activity to cease or for the work to be rescheduled to another time.
- Wherever possible, work should not be carried out while there are children present. However, if work must be carried out while there are children present, ensure that there is also someone present who has completed the Diocesan-approved Safe Ministry Training.

REMEMBER

Before a contractor commences work they are to complete the Contractor Safety Plan.

Contractor Safety Plan

For use in Anglican parishes in the Diocese of Sydney

To be completed by the parish

1. Description of work to be carried out by the contractor
.....
.....
2. Name of parish representative responsible for managing the contractor's safety
.....
3. Contractor has been inducted to the site (refer to list on page 14) and contractor's OH&S General Induction card has been sighted
List risks identified
.....
.....

To be completed by the contractor

4. Name of the contractor
.....
5. Name of the contract manager (person in charge of the actual work)
.....
6. Name of workers' compensation insurer, policy number and expiry date or name of disability insurer and policy number, (whichever is applicable)
.....
7. Name of public liability insurer, policy number, expiry date and amount of cover
.....
8. Name of contractor's all risk insurer, policy number, expiry date and amount of cover
.....
9. **Risk assessment**
What specific risks are associated with the performance of the contracted work, including hot work and any hazardous substances to be used?
.....
.....
10. **Safety management**
How will the work be carried out to manage the risks identified above?
.....
11. Applicable Codes of Practice
.....

Acknowledgements and agreements

12. The contractor acknowledges and agrees that:
 - (a) the parish has identified the risks set out in this safety plan
 - (b) the contracted work will be carried out in accordance with this safety plan
 - (c) the contractor and each of the contractor's staff have been advised of the parish's emergency procedures, the location of any fire exits at which the work is to be carried out and has sighted the asbestos register

Signatures

.....
Name: _____ Name: _____
For the contractor Date / / Parish representative Date / /

RISK MANAGEMENT

NOISE

We are surrounded by sound all day, every day. It may be as soft as a ticking clock or as deafening as the noise of a jet aircraft!

“...consider how the sound or noise that we create can be harmful to Gospel ministry.”

Whether we consider it to be ‘sound’ or ‘noise’, pleasant or unpleasant, background or obtrusive, too soft or too loud will depend upon what we are doing at the time and our personal preference.

Before we talk about acceptable sound levels, it is worth remembering that what someone considers to be pleasant or unpleasant may have nothing to do with the volume of the sound. It may be more often the case, that it is their preference for the type of sound that makes it pleasant or unpleasant. For example, a person who loves classical music may like the volume turned up, however that same person may find rock music at the same volume unpleasant (and vice-versa).

Further, it is important to understand that sound or noise that is loud may not only be unpleasant for some but may cause actual physical damage to people’s hearing.

Therefore, the purpose of this section is to consider how the sound or noise that we create can be harmful to Gospel ministry and to seek to avoid that harm.

Noise Induced Hearing Loss

Hearing is one of our very precious senses and like sight, smell, touch and taste, good hearing is a major aspect of our physical, mental and emotional wellbeing. Hearing can be permanently damaged by excessively loud noise.

Just as we would not dream of deliberately harming someone’s sight by aiming a laser light into their eyes, so we must not harm their hearing, or our own hearing, by excessively loud sound.

How does Noise Induced Hearing Loss occur?

Noise induced hearing loss can be caused by exposure to loud sound or noise in a single occurrence. For example, being close to an explosion or a similarly loud sound can instantly cause permanent hearing loss. However, for most people, noise induced hearing loss occurs through repeated exposure to loud sound or noise. It is the combination of the loudness of the sound and the length of time exposed to the sound that will determine the extent to which hearing is damaged. The louder the sound, the shorter the length of time before hearing damage occurs.

“The louder the sound, the shorter the length of time before hearing damage occurs.”

The sensitive hair cells of the inner ear can be damaged and once destroyed, the hearing nerve and its sensory nerve cells do not regenerate. Noise induced hearing loss is usually gradual and painless, but unfortunately, permanent.

How is the loudness of sound measured?

Sound is measured in units called decibels. For example:

- a whisper is about 30dB
- a running refrigerator is 40dB
- normal conversation about 60dB
- city traffic can be 85dB
- power tools can be 90dB to 100dB
- loud music can be anything from 100dB to peaks of 140dB or more. This range also includes a jet aircraft on take-off, unsilenced jackhammers and firearms.

It is important to realise that decibels are measured logarithmically. That is, 40dB is not twice as loud as 20dB; it is actually 100 times as loud.

All sound levels over 80dB are potentially dangerous. The Occupational Health and Safety Regulation requires noise control measures for exposure to an 8 hour noise level equivalent of 85dB. An example of this is the requirement to wear earmuffs when using some power tools.

There should **never** be a 'peak' that exceeds 140dB for adults and 120dB for children. An example of a 'peak' could be using a nail gun or hitting a snare drum.

Noise induced hearing loss is usually experienced as reduced hearing ability at the mid frequencies of 2,000 to 4,000 Hz. It is often accompanied by a ringing in the ears called 'tinnitus'.

Quite a number of people have some hearing loss and do not realise it. They may have been listening to loud music over a long period of time and think that there is nothing wrong with their hearing. A hearing test may reveal that they do, in fact, have some loss of hearing at certain frequencies.

An example of the effect is difficulty in hearing conversation in a crowded room, which can be socially debilitating. It could result in an inability to hear subtle sounds, such as not hearing music the way it is actually played, but hearing instead your ear's distorted version. It may mean that some of the delights of life, such as the distant call of a bird, can no longer be heard.

Sensitivity to our neighbours

As followers of Jesus, our responsibility to the community includes respecting the rights of our neighbours to be able to enjoy their property without interference from us. Most churches have neighbours in close proximity, so we need to be aware of any sound that we generate which can be heard beyond our property boundary.

Excessive noise can leave your church open to prosecution, if your local council imposes a noise control notice. Your neighbour may also seek a noise abatement order from the local council or a noise abatement directive from the police.

“ As followers of Jesus, our responsibility to the community includes respecting the rights of our neighbours to be able to enjoy their property without interference from us. ”

Please consider these points:

- Use of noisy power tools, such as mowers, whipper-snippers, blowers, circular saws, grinders etc, early in the morning or late in the evening
- Cars entering or leaving your site early in the morning or late at night
- Loud talking and laughter in the grounds, particularly late at night
- Loud group activities
- Loud music and the general level of the sound system. Particularly in summer, when windows and doors are usually open, we can unconsciously be broadcasting our worship services and other activities to our neighbours, which may not be a helpful form of evangelism

Working with power tools

Earmuffs or ear-plugs should be worn when using power tools that create loud noise, such as:-

- | | |
|---------------------------|-----------------|
| ❖ Petrol whipper-snippers | ❖ Blowers |
| ❖ Lawn mowers | ❖ Circular saws |
| ❖ Chain saws | ❖ Sanders |
| ❖ Grinders | |

Some have the impression that wearing personal hearing protection is a sign of weakness. **It is not!** It is simply good stewardship of the gift of hearing.

Consideration should also be given to people who are near to the power tool that is being used, as the sound level for them may be harmful. If hearing protection cannot be supplied, they should be asked to leave the area. If that is not possible, the tool should not be used while they are present.



NOISE

Whether we consider it to be ‘sound’ or ‘noise’, pleasant or unpleasant, background or obtrusive, too soft or too loud will depend upon what we are doing at the time and our personal preference.

RISK MANAGEMENT

Loud music

Many churches have musicians who can produce very high levels of sound, given the style of music and the atmosphere of the service or event.

Loud music is an increasing cause of noise induced hearing loss. There are many who have permanent damage to their hearing that has been caused by attending concerts where the sound level is high, listening to loud music or playing a musical instrument. The style of music is not the issue; it is the loudness and length of time that causes damage.

Remember, a person's hearing can be damaged by loud sound or noise without the person realising it!

“ Loud music is an increasing cause of noise induced hearing loss. ”

The sound levels of our music need to be managed so that they are not likely to contribute to noise induced hearing loss.

This is a sensitive issue and may involve a considerable degree of discussion and understanding to achieve the outcome that is appropriate for your parish.

Pain and age

For some people, particularly those with existing hearing damage, loud sound can be uncomfortable and physically painful. Also, older people in your church can experience profound discomfort at volume levels that would normally not concern younger people.

Please be mindful of those in your congregation with existing hearing problems by finding ways to accommodate their needs.

Caring for your musicians

Remember: musicians will be exposed to loud sound for longer periods of time than the congregation. The practice time combined with the service or function time can easily reach dangerous volume levels for long periods. For example, it would be very easy to exceed 1 hour at 94 dB.

In addition, the musicians and singers are a lot closer to the source of much of the sound. This particularly applies to a drummer and anyone who stands near the drum kit or a loudspeaker.

Ideally, for their own protection musicians should be supplied with ear plugs that are designed for musicians.

Managing sound levels

The parish needs to manage the sound levels at services, youth and children's activities, special events etc. It is not good enough to hope that the sound level is OK. Managing sound levels brings personal preferences into play and most people have a view when it comes to the style and volume of the music.

The ministry team needs to develop appropriate strategies to deal with the various sound level issues that are present in the parish activities, giving due respect to the needs of the whole congregation - young and old.

Please consider adopting the following to manage sound levels in your parish:-

“ The parish needs to manage the sound levels... ”

- **Discuss the matter of sound levels with all interested parties.** Look beyond personal preference to make sure that people's hearing is not at risk.
- **Purchase a sound level meter.** They provide an accurate indication of the sound levels that are actually being produced. Most enable you to select A-weighting or C-weighting. A-weighting is used to measure sounds of various volume levels, while C-weighting is used to measure peak noise levels. You may find that C-weighting will give a higher reading than A-weighting for loud sound with bass components. To err on the side of caution, you may decide to **use C-weighting (C) for all music readings.**

If 'rock' music is a style used in your ministry, purchase a sound level meter which will measure impulse sound (instantaneous peaks). It will be more expensive, but will give more complete information.

- **Take sound level readings at various places around your church / venue,** not just at the sound desk. For example, if the sound desk is towards the rear of the venue, there may be considerably higher levels towards the front or immediately in front of speaker clusters.
- The ideal would be to operate at a **maximum sound level of 85dB(C)** – that is, real time or immediate level as measured on a sound level meter (not an 8 hour weighted average).



RISK MANAGEMENT

- Please remember that many people may be in a noisy environment before and after the service or event. They may be experiencing sound levels of 85dB or above for a considerable part of the day.

If 85dB(C) is not satisfactory for the needs of your music ministry, operate at no more than 90dB(C) (immediate as measured on a meter), with **peaks no higher than 95dB(C) absolute maximum**. Please realise that 95dB(C) is more than twice as loud as 90dB(C)! The perceived volume level approximately doubles for every 3dB. Remember, for some in your congregation, these levels may be very uncomfortable, even to the extent that they may not be able to continue attending.

“ Louder is not necessarily better.”

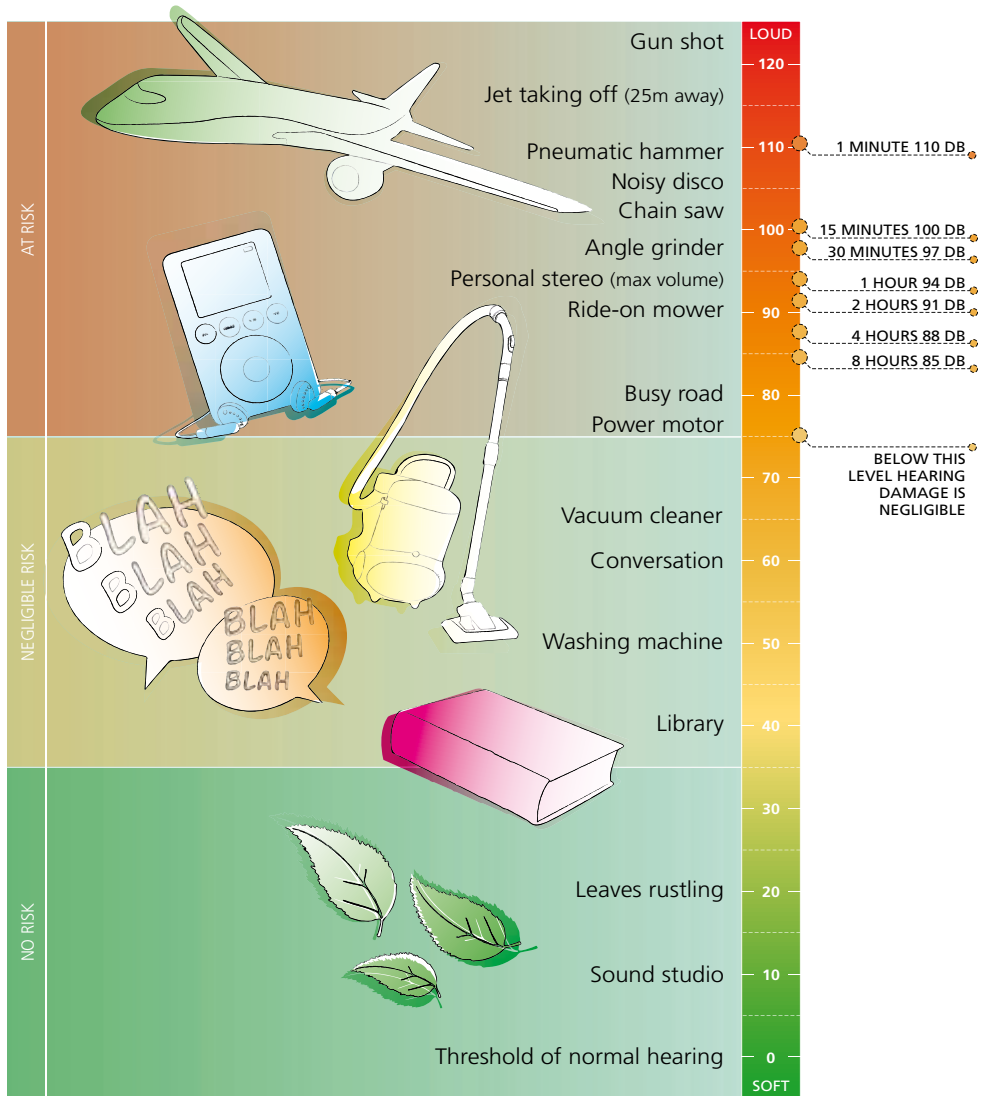
Without care, instantaneous peaks can easily reach 115dB or 120dB. While these may not be perceptible to the human ear, being of very short duration (perhaps 1/16 second), but they can still do damage. They must be managed and kept as low as possible.

- **Consider installing auto attenuation equipment to your sound system.** This equipment limits the volume that your system can produce and is an excellent way of managing peaks and sound desk operators who may forget the guidelines.

Additional points to consider...

- Many of our people may have existing hearing damage from work situations or from listening to loud music - we must try our best not make it worse.
- If you have become accustomed to loud noise, you have probably already suffered some hearing loss.
- There is a real problem in having sound levels controlled by people who already have partial hearing loss – they may turn it up to a volume that is great for them, but too loud for those with undamaged hearing. Therefore it is suggested that your music and sound teams have a personal hearing test. It may not help their ego, but it will help their ministry.
- Louder is not necessarily better.
- When people complain that loud music or some other activity is causing them distress (particularly physical distress), please care for them by taking the time to listen and address their needs.
- You cannot please all people all the time – but you can prevent harm from sound that is too loud.

MANY DAILY ACTIVITIES CAN BE CARRIED OUT WITHOUT CAUSING ANY DAMAGE TO YOUR HEARING, BUT EXPOSURE TO NOISE DURING OTHER ACTIVITIES STARTS CAUSING DAMAGE AFTER A LIMITED AMOUNT OF TIME.



THE NOISE LEVELS SHOWN ARE APPROXIMATE AND SHOULD ONLY BE TAKEN AS A GUIDE

NOISE LEVEL IN A WEIGHTED DECIBELS

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EXPOSURE TO LOUD NOISE CAN LEAD TO PERMANENT HEARING LOSS. YOU SHOULD TRY TO REDUCE THE NOISE WHENEVER POSSIBLE, OR LIMIT YOUR EXPOSURE TIME TO PROTECT YOUR HEARING.

How much noise is too much noise?

If you need to raise your voice or shout in order to be understood in background noise, then the noise is too loud. Either do something to limit the noise, such as turn it off or turn it down, or move away from the noise.

If your ears “ring” after you have been in loud noise, or the world sounds a little quieter, then the noise level was hazardous to your hearing.

Leisure and music

Don't imagine for a moment that it is only workplace noise that has an effect on your hearing.

If you attend discos, motor races or fireworks displays take earplugs with you. Learn to fit earplugs correctly, because they offer little protection if poorly fitted.

Take “time out” periodically in a quiet area, or limit the amount of time you spend there.

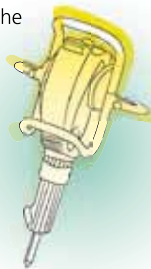
If you are listening to your personal stereo with your earphones and you don't hear someone speak to you, then the music is too loud. Personal stereos turned to hazardous levels are an increasing cause



of hearing damage, particularly amongst young people.

What can you do?

Damage to hearing due to noise exposure is cumulative. This means the higher the noise level and the longer the exposure, the greater the damage. It's like exposure to the sun and ultraviolet radiation. There is a degree of recovery during non-exposure time, but in the long term, the more exposure, the more damage.



- * Do not deliberately expose yourself to very high sound levels such as noisy machinery or loud rock concerts.
- * If your work place is very noisy, talk to your OH&S officer about making it quieter. It is an employer's responsibility to provide a safe work environment.
- * Limit your exposure by reducing the time of exposure and/or the loudness of the noise.

* If you cannot avoid loud sound, eg mowing the lawn, then you should protect your ears with earplugs or earmuffs. Earplugs are cheap and can be purchased at a pharmacy or hardware store. Cotton wool does not provide adequate protection.

* Sudden loud noise, such as explosions, gunfire, loud whistles or sirens can also cause instant and permanent damage to your hearing.

* You should give your ears frequent rest from noise.

* Be aware that the risk can increase if you are occupationally exposed to solvents or toxins or if you are taking certain drugs as well (particularly some powerful antibiotics).

* Remember CAT:

C – Cover your ears,

A – Avoid the noise,

T – Turn it down!

LOOK AFTER YOUR EARS. IF YOU DAMAGE YOUR HEARING, IT WON'T COME BACK.

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PARISH RISK MANAGEMENT PROGRAM

Sample check list for Module 2

Electrical Appliances, Equipment and Wiring

- | | Yes | No |
|---|--------------------------|--------------------------|
| • Are only licensed electricians allowed to work on parish electrical systems? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Has electrical wiring been inspected by a licensed electrician in the last 12 months? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is the switchboard / switchroom locked at all times? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Have safety switches (RCDs) been installed? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Have safety plugs been placed in the crèche, crying room, playgroup area etc? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Have surge protectors been installed? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Do you know the location of underground cables, pipes and service easements? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Are power boards and extension leads being used correctly and are they in good order? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Has electrical equipment, which is used in a hostile environment, been tested and tagged? | <input type="checkbox"/> | <input type="checkbox"/> |

Hazardous substances

- | | | |
|---|--------------------------|--------------------------|
| • Are all chemicals, including detergents and cleaning agents, kept out of the reach of children? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Are all chemical substances clearly labelled? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Do you have material safety data sheets for the products that you use? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Are gas bottles stored outside of buildings? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Is adequate protective clothing used by staff and volunteers? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Has a register of hazardous substances been established? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Have gas appliances been checked in the last 12 months? | <input type="checkbox"/> | <input type="checkbox"/> |

Plate Glass

- | | | |
|---|--------------------------|--------------------------|
| • Have presence of glass markers been placed on glass doors and panels? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Do you have non-safety glass in glass doors or panels? | <input type="checkbox"/> | <input type="checkbox"/> |

Noise

- | | | |
|---|--------------------------|--------------------------|
| • Are you managing your noise levels so that your neighbours are not adversely effected? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Do volunteers wear hearing protection when they use noisy power tools? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Have you purchased a sound level meter and are you using it? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Are you protecting your musicians from sound that could damage their hearing? | <input type="checkbox"/> | <input type="checkbox"/> |
| • Have you agreed on the maximum sound level that will be used at your services and events? | <input type="checkbox"/> | <input type="checkbox"/> |

For any questions where you have answered NO, please take corrective action.

Please note that this is not a comprehensive checklist for all parish contexts

Risk Identification Register – Electrical appliances, equipment and wiring

This register is to be completed by periodic inspection of your parish site/s. Risks and incidents reported by staff, volunteers and others on your parish site/s from time to time should also be included on the register. When completing the register you should keep in mind the following general OH&S duties:

- (a) ensure that your Parish site/s (including exits and entrances) are safe and without risks to health;
- (b) ensure that anything provided for use by your staff and volunteers at work is safe and without risks to health when properly used;
- (c) ensure that systems of work and the working environment of your staff and volunteers are safe and to take reasonable steps to prevent or minimise risks to the health and safety of people;
- (d) provide the information, instruction, training and supervision required to ensure the health and safety of your staff and volunteers.

Description of hazard identified A risk is anything which potentially puts at risk: <ul style="list-style-type: none"> ❖ The health or safety of staff or other persons at our site/s ❖ The good order of our property and equipment ❖ Our financial well-being ❖ Our reputation and relationships with people inside and outside of our parish 	Likelihood <ul style="list-style-type: none"> ❖ Almost certain ❖ Likely ❖ Possible ❖ Unlikely ❖ Rare 	Consequence <ul style="list-style-type: none"> ❖ Catastrophic ❖ Major ❖ Moderate ❖ Minor ❖ Insignificant 	Risk Rating Refer to matrix: <ul style="list-style-type: none"> ❖ Extreme ❖ High ❖ Moderate ❖ Low 	Action plan for eliminating (or controlling) the risk (include who, what and by when)	Outcome of action plan (include date risk eliminated or date to review effectiveness of risk controls)

Risk Identification Register – Hazardous Substances

This register is to be completed by periodic inspection of your parish site/s. Risks and incidents reported by staff, volunteers and others on your parish site/s from time to time should also be included on the register. When completing the register you should keep in mind the following general OH&S duties:

- (a) ensure that your Parish site/s (including exits and entrances) are safe and without risks to health;
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Description of hazard identified A risk is anything which potentially puts at risk: <ul style="list-style-type: none"> ❖ The health or safety of staff or other persons at our site/s ❖ The good order of our property and equipment ❖ Our financial well-being ❖ Our reputation and relationships with people inside and outside of our parish 	Likelihood <ul style="list-style-type: none"> ❖ Almost certain ❖ Likely ❖ Possible ❖ Unlikely ❖ Rare 	Consequence <ul style="list-style-type: none"> ❖ Catastrophic ❖ Major ❖ Moderate ❖ Minor ❖ Insignificant 	Risk Rating Refer to matrix: <ul style="list-style-type: none"> ❖ Extreme ❖ High ❖ Moderate ❖ Low 	Action plan for eliminating (or controlling) the risk (include who, what and by when)	Outcome of action plan (include date of risk eliminated or date to review effectiveness of risk controls)

Risk Identification Register – Plate Glass

This register is to be completed by periodic inspection of your parish site/s. Risks and incidents reported by staff, volunteers and others on your parish site/s from time to time should also be included on the register. When completing the register you should keep in mind the following general OH&S duties:

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Risk Identification Register – Noise

This register is to be completed by periodic inspection of your parish site/s. Risks and incidents reported by staff, volunteers and others on your parish site/s from time to time should also be included on the register. When completing the register you should keep in mind the following general OH&S duties:

- (a) ensure that your Parish site/s (including exits and entrances) are safe and without risks to health;
- (b) ensure that anything provided for use by your staff and volunteers at work is safe and without risks to health when properly used;
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Description of hazard identified A risk is anything which potentially puts at risk: <ul style="list-style-type: none"> ❖ The health or safety of staff or other persons at our site/s ❖ The good order of our property and equipment ❖ Our financial well-being ❖ Our reputation and relationships with people inside and outside of our parish 	Likelihood <ul style="list-style-type: none"> ❖ Almost certain ❖ Likely ❖ Possible ❖ Unlikely ❖ Rare 	Consequence <ul style="list-style-type: none"> ❖ Catastrophic ❖ Major ❖ Moderate ❖ Minor ❖ Insignificant 	Risk Rating Refer to matrix: <ul style="list-style-type: none"> ❖ Extreme ❖ High ❖ Moderate ❖ Low 	Action plan for eliminating (or controlling) the risk (include who, what and by when)	Outcome of action plan (include date risk eliminated or date to review effectiveness of risk controls)



RISK

MANAGEMENT