

# REVCOM

## Health and Safety

## Introduction

This document contains the REVCOM Health and Safety Statement, an overview of the risks involved with our activities and the main Health and Safety Guidelines.

It should be noted that you are required to carry out your activities within REVCOM in a safe manner. The law requires that you are responsible for carrying out your duties in accordance with the 1974 Health and Safety at Work Act. You are not exempt from the law just because you are not paid. You are considered to be at work even though REVCOM is not your employer, and you could be prosecuted under the Act if you act irresponsibly.

The Health and Safety at Work Act imposes rules upon you, and requires that you are given guidance in working safely. Normally this guidance would come from your employer, but as a member of REVCOM you will receive your guidance from this document, produced by the REVCOM National Executive Committee (NEC).

Rules are also imposed on your employer, or as a member of REVCOM, upon the NEC, to give guidance to those required to carry out their duties on behalf of the employer.

The Health and Safety at Work Act uses a specific term, the "Duty Holder", which defines who has the responsibility for ensuring the work is carried out safely. In practice, what this means is that for your part you must make sure you know how to do the work. In legal terms this is defined as "sufficient knowledge and experience". You are also obliged to follow the guidance given by the NEC.

The NEC is obliged to give you information and training necessary to carry out your duties safely. You may also be required to follow safety instructions given to you by an event organiser.

This means that if an accident occurs, YOU are liable if you fail to follow the guidance given, and use reasonable common sense and good practice.

## **Radio Emergency Volunteer Communication Group (REVCOM)**

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# Health and Safety Statement

**The National Executive Committee aim to promote safe working within REVCOM by:**

- 1) Making available to members a guidance document explaining good working practice.
- 2) Providing practical training sessions at team and National level.
- 3) From time to time publishing information in the Magazine explaining changes in the legislation
- 4) Providing the necessary training and information to the elected team Health and Safety representative.

## The Risks Involved

There are many and varied risks that may be encountered whilst carrying out your duties as a member of REVCOM.

These may include:

- 1) Trip hazards due to cables, guide ropes, generators and other ground hazards.
- 2) Burns from battery explosions, hot components of generators and petrol fires.
- 3) Injury from moving vehicles, including cars, trailers and bicycles, and caravan siting
- 4) Injuries from contact with horses
- 5) Electric shock from the use of generators and other electricity supplies
- 6) Gas explosions from the use and storage of gas containers
- 7) Exposure due to working outside in cold weather
- 8) Brain damage from the use of portable radios and telephones.

You are required to minimise these risks to yourself and others.

The next section gives guidance on how to carry out your duties safely.

**Remember. this is not a document issued by the NEC to make your life difficult. It is an interpretation of existing legislation set out in a manner that applies to REVCOM activities.**

You are obliged to carry out your duties safely. This obligation is a legal one. This document fulfils the duties of the NEC in giving you guidance, and assists you in understanding the law.

Where you see **bold type** in the guidance notes, then the instruction is mandatory.

# **REVCOM**

Health and Safety Guidance Notes

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## REVCOM Health and Safety Guidance Notes - Section 1 - Road Traffic

Almost all REVCOM activities will involve the presence of road traffic at some point. You are expected to use common sense in your dealings with road traffic. Road traffic in this sense includes vehicle movements on the public road and on private land being used for an event.

### Duties by the roadside.

Take care not to become distracted from watching for dangers from traffic whilst on roadside check points. Checkpoints must be setup and operated so as not to increase the risk of an accident. Signs warning of horses crossing, for example, should be placed far enough before the checkpoint/crossing to give drivers adequate warning of the danger. Take account of expected road speed, and have the signs checked from a car to ensure they are clearly visible.

### **High visibility jackets must be worn when operating by the roadside**

**Any vehicle used by a REVCOM member must be roadworthy, properly insured and in all ways conforming to the requirements of the law.** Vehicles that are parked whilst the driver is performing REVCOM duties must be parked legally and safely, and particularly, should not present a hazard to other road users.

### Directing Traffic

**In most instances you should refuse to perform any duty which is wholly or mostly directing traffic.** There are considerable risks involved with directing traffic. This is a job that should be left to the police for public road duties, or the event organisers. An accident between vehicles that you have directed could lead to you being sued by one or both of the owners.

Where you are directing a REVCOM member to a parking space or similar activity, then ensure that the path that the vehicle is to take is clear of people and obstructions.

### Carriage of Equipment

Any equipment carried in the body or boot of a car should be secured firmly so that it cannot present a hazard to the occupants. Gas containers should be securely closed and leak tested, before being fitted to a proper transport cradle.

Spare lead acid batteries must be carried in a cradle that will prevent them from tipping during transit. A solid wood or plastic top should be fitted to prevent accidental shorting.

Any items carried on a roof rack must be securely tied down and the weight must be within the limit of the roof rack. Remember that a car with a weighted roof rack will be noticeably less stable and must be driven at reduced speed.

## REVCOM Health and Safety Guidance Notes - Section 2 - Electrical Hazards

This section is divided into part 1, risks from arcing, burning and explosion, and part 2, risks from electric shock.

### Part 1

The Electricity at Work Regulations 1989 introduced the distinction between the risks involved from electricity causing sparking, arcing, burning and explosion, dealt with in this part, and the risks from electric shock.

It is the use of loose batteries that presents the greatest risk. A car type lead acid battery is capable of producing enough current to vapourise a piece of 2.5mm copper wire. It is possible to cause a fire from sparks caused by a short circuit. Burns may also result from overloaded cables. Burns to the skin and eyes may be caused by a battery exploding and propelling sulphuric acid into the air.

To use a battery safely it should be placed in a cradle to prevent it from tipping. The base of the cradle should be at least twice the base area of the battery. Fit a wood or plastic top to the cradle to prevent metallic parts falling on to it and causing an explosion. Adequate ventilation should be provided to prevent a build up of gases. Explosive gases are released as a battery is charged.

A fuse should be fitted in the +ve lead as close as possible to the battery terminal. This is to minimise the risk of a short circuit in the unprotected part of the wiring. The correct fuse should be used to provide proper protection. It is reasonable to use a 5 amp fuse for powering a PMR. Use a separate fuse for each appliance connected to the battery. Do not connect multiple devices to a single fuse otherwise a fault on one of the devices may result in a fire rather than blowing the fuse.

Generators may also present a risk of burning and explosion. Cables leading from the generator should be kept in good condition and properly terminated. Never leave cable coiled in use. A coiled cable may heat up and melt. Excess cable should be laid in a random pile, never a neat coil. Never refill a running generator. There is a great risk of fire. Always use a funnel or petrol can with integral spout. Most generators have an exposed hot exhaust. Petrol may well ignite if spilt on these hot surfaces.

**Keep generators away from tents, cars and caravans to avoid a fire risk.** A powder extinguisher should be placed near the generator on the side nearest your place of operation. Never use water on a petrol fire, it will cause very rapid burning if put on a petrol fire.

Never put spare petrol close to a generator or vehicle. Keep petrol cans apart and well marked. Do not store two cans in the same location.

### Part 2

Risks of electric shock.

Car batteries can cause many problems, but a single car battery will not give you a shock. The voltage is too low. Generators and other supplies above 60 volts represent a risk of electric shock. It is for this reason that building site power tools are used with a 55 - 0 - 55 volt transformer.



## REVCOM Health and Safety Guidance Notes - Section 2 - Electrical Hazards

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### Part 2

Risks of electric shock.

Generator leads must be kept in good condition and the cable clamps on the plugs should be checked for tightness before use. An earthing lead should be properly connected to the generator frame earth and then to an earth spike. Make sure the spike is pushed well into damp earth.

**To reduce the risks of shock from portable appliances used in conjunction with a caravan fed from a generator, an RCD should be fitted to the caravan.** Ideally an RCD should be fitted at the generator, this gives protection for the caravan and the cable feeding it.

**RCD's should be tested as soon as power is applied.** Press the yellow test button and the RCD should trip. The system should not be used if the RCD does not trip. Replace the RCD if it fails to trip.

Where a caravan is fitted with a 12 volt circuit as well as a mains circuit then the two systems should be kept separated. Do not run 12 volt system cables close to mains cables. The power converter used to provide the 12 volt power from the mains supply, should be mounted in accordance with the manufacturer's instruction. Ensure proper ventilation for the power converter. Make sure that the power converter system terminals and components are protected from contact. The regulation require an IP (Ingress Protection) rating of at least IP20. This means there must be no hole in excess of 12.5 mm present in the case of the power converter box.

Make sure that the 12 volt output of the power converter system is properly fused. The fuse should be selected to suit the cable running from the power converter, and the output of the converter. Never use a fuse too large for the cable or power converter.

Make sure that any cable carrying voltages above 60 Volts is rated to do so. Most cable will carry the voltage rating on the outer sheath.

Cables that are going to be laid on the ground should be protected from vehicles and pedestrians. Where the cable runs over grass, cut a slit trench to protect the cable from damage. Where the cable is to run over a hard surface then a protective covering must be used. A purpose made rubber trunking is available for this purpose from electrical wholesalers. This product will have been seen when you pass over cables used with temporary traffic lights.

## **REVCOM Health and Safety Guidance Notes - Section 3 - Trip Hazards**

### Trip Hazards

On outside events this is a common problem. It is often necessary to run cables around and to erect poles with guide ropes. To minimise risks to REVCOM personnel and members of the public these cables and ropes need to be safely positioned and marked.

Events in winter time often mean operating during the hours of darkness. To minimise risks, bury cables in slit trenches and mark guide ropes and pegs with fluorescent and luminescent materials. Provide lighting for hazardous areas if possible. Rope lights fixed to guide ropes near to ground level will make the presence of guide rope very obvious. Do not fix rope lights below a point 24" from the ground to avoid damage to them that could then turn into a risk of electric shock.

Site generators away from walking areas, and use orange cable from the generator to the caravan or mobile installation. Other colours of cable are not so clearly seen.

On EHPS events, take care when walking amongst the horse transporters. Horse owners often leave ropes and nosebags around and these present a trip hazard.

## **REVCOM Health and Safety Guidance Notes - Section 4 - Hazards with Horses**

### Hazards with horses

Horses are large and heavy and can kill a person with one kick. A well behaved horse in a calm state is never a problem. but horses spook easily, and an injured horse may be very dangerous.

Horses do not like being approached from the side or behind. At events they are usually tethered to a vehicle side so give the rear end a clear berth when passing. Keep at least ten feet from the rear end.

Riders of horses may exercise them prior to an event so take note of where they are riding and keep well away.

At endurance rides you may well find yourself and your vehicle in close proximity to horses and riders. Do not move vehicles while horses are present at the check point. Always avoid load noises or rapid movements. Do not sound your horn at a horse and rider. Do not shine torches towards horses approaching you.

When horses approach your checkpoint, make your presence known early, and stand still, let the riders approach you.

Do not attempt to feed horses, whether the rider is present or not.

You may find that support teams will attend your checkpoint to provide refreshments for the horse and rider. Do make sure that support teams park their cars safely, and do not create a safety hazard.

## REVCOM Health and Safety Guidance Notes - Section 5 - First Aid

### First Aid

Due to the risks involved with administering first aid, it is now REVCOM policy not to administer first aid.

What you should do in the event of an accident occurring during an event is to get the relevant details back to control as fast as possible. You will need to pass to control the following:-

- 1) Location
- 2) Name of person requiring attention
- 3) Brief details of injury

Call control with the message prefix PRIORITY

Example message:-

This is REVCOM 421 calling control, priority call.

Repeat every 10 seconds until control responds. In the event that control does not respond, you may use a mobile phone to call 999 and alert county ambulance. You should only do this if control does not respond, as normally, the event ambulance would arrive before county ambulance.

When you have passed this information to control you should talk to the patient and reassure them that help is coming. Try to obtain an address and write it down. Pass this information to control and hand the details to the ambulance crew when they arrive. This may be vital information should the patient lose consciousness before the ambulance arrives.

**It essential that you do not administer anything by mouth, even water, or apply anything to the skin.** You may apply a blanket or similar if the patient shows signs of shivering due to shock.

**Do not move the patient in any way unless their situation is really life threatening.** There must be imminent danger to the patient to justify moving them. Accident victims have been known to sue the very people who helped them. Such is the nature of society.

## REVCOM Health and Safety Guidance Notes - Section 6 - Gas Containers

### Gas Containers

Many teams use caravans. If gas is used for cooking or heating, then do not touch gas supplies unless you have been shown how to do it properly. A leaking gas cylinder can cause a severe explosion. Keep all flammable material away from naked flames.

Gas containers should be either secured firmly outside the caravan or fitted to an approved cupboard either at the front of the caravan or in the side in some newer models.

Do not carry gas containers inside the caravan. The caravan could become very unstable on the road should the gas container roll around. Also, it may result in gas leaking from the container and an explosion may result. **Gas containers should either be transported in the cupboard or locker on the caravan designed for the purpose, or carried in the boot of the car in a secured cradle.**

On very hot days keep the container out of direct sunlight.

## **REVCOM Health and Safety Guidance Notes - Section 7 - Operating in Cold Weather**

### Operating in Cold Weather

Not many REVCOM events occur during the severe winter months, but when they do it is necessary to be prepared. You may often be required to remain in one location for many hours and it is not always practical to run a car's engine to keep warm. Total failure of your car's electrical system would leave you cold and unable to summon help from control.

#### Preparation

Take sufficient warm clothing to survive outside. A hat is very effective at keeping you warm. Around one third of your body heat is lost through the head. Do not rely on the car to keep you warm. Take warm drinks and a sleeping bag. Take a bright coloured flag or similar to aid rescuers locating you. Take a spare blanket in case you have a casualty at your checkpoint.

Keep a full tank of petrol, this may keep you warm if trapped.

#### Prevention

Organisers of winter time events should ensure that welfare calls are made to outstations at least every 30 minutes. This will alert you to an outstation with problems. You should arrange for an immediate visit to an outstation that does not respond to a welfare call. Before the start of the event control should record all REVCOM members who have mobile phones, and note their numbers. Members arriving at their checkpoint should inform control if they have a mobile that has insufficient signal to function. Remember that text messages will often succeed where a call will not. A much lower grade signal is required for a text message.

#### Rescue

In the event of electrical failure, control should detect this by the next welfare call. Always remain with the vehicle. Do not go off to look for a phone.

In the event that you are stopped by heavy snowfall, then raise a flag or other brightly coloured object as far above the car as possible then keep warm in the car. Do not go to sleep with the engine running, as it is possible to get exhaust gas entering the car if the exhaust pipe is not able to discharge into the air. You should sleep until the cold wakes you, then check the exhaust before running the engine again.

## REVCOM Health and Safety Guidance Notes - Section 8 - Brain Damage

### Brain Damage

Much has been written about the dangers of using mobile phones. There is fairly conclusive evidence to show that some people are affected by long term heavy use of mobile phones.

When you consider that hand held mobile phones have .25 Watt outputs, and we may use hand held radios with 2 watts output, then we should consider that there is a risk involved in the long term use of hand held radios.

The length of time that we use these radios for is small, but you should still minimise the risks involved by using a vehicle mounted aerial if possible, or by varying the aerial position and side of the head it is held to. Only transmit where absolutely necessary, and keep transmissions short.

The lower frequencies that we use are less of a problem, but many of us also use mobile phones, and the effects of the combined use have not been evaluated.

## REVCOM Health and Safety Guidance Notes - Section 9 - Caravans

### Caravans

The caravan should be sited in a safe area where the door opens out into an area where vehicle movements do not occur. This allows the team to move in and out of the caravan safely.

The caravan uses legs at the corners to support some of the floor load and stop the caravan tipping up. These legs should be lowered onto a hard surface until they only just start to lift the caravan. Use plastic or wood plates when siting on grass, these stop the legs sinking into the grass. The legs are then adjusted to level the van front to back only, any left/right tilt should be corrected using a wheel ramp.

The hand brake must be applied, and wheel chocks used if the caravan is to be sited on a slope. The chocks should be placed under the wheel on the downhill side, then the brake should be slightly released to allow the wheels to put pressure on the chocks. This stops them being accidentally knocked out of place while the caravan is in use.

Whenever mains supply or generator supply is to be used in a caravan, it should have the chassis connected to ground via an earth spike. This is very important as a caravan sited with plastic or wood under the legs will have no contact with the earth.

When the tow vehicle is removed, the caravan tow hitch should be covered with something bright to reduce the risk of someone walking into it.

Do not undo the jockey wheel clamp unless the caravan is hitched to a car, or the weight is being taken by the front corner stays. You may receive a crushed foot if you ignore this.

### Gas Appliances

Caravans frequently have gas cookers fitted. Where these are to be used it is essential to check the air vents. Look under the seats and cupboards to make sure that the vents are not obstructed.

The gas system should be checked annually for leaks and corrosion. It is best to have an approved caravan centre do a pressure test on the gas system.

Check the condition of the tyres before travel. Make sure that the walls of the tyres are not cracked, and that they are inflated to the correct pressure.

### Carrying Loads

**You should not overload a caravan.** Many caravans are only designed to carry a small additional load. Check the manufacturer's information to see what your van can safely carry.