



The British Association for Shooting & Conservation

**HEALTH AND SAFETY  
RISK ASSESSMENT FOR SETTING UP A  
CLAY SHOOT**

## **CONTENTS**

<b>INTRODUCTION</b>	<b>2</b>
<b>HEALTH AND SAFETY</b>	<b>2</b>
WHY?	2
WHERE TO BEGIN	2
<b>RISK ASSESSMENT</b>	<b>2</b>
RISK ASSESSMENT – WHAT IS IT?	2
DEFINITIONS – HAZARD AND RISK	3
WHAT IS AN ASSESSMENT?	3
<b>HAZARDS</b>	<b>4</b>
<b>ASSESSMENT OF RISKS</b>	<b>5</b>
<b>CONTROL MEASURES</b>	<b>6</b>
<b>PROCEDURES</b>	<b>6</b>
<b>CONCLUSION</b>	<b>8</b>
<b>Hazard Identification Criteria Reminder</b>	<b>9</b>
<b>Hazard Identification Reminder Checklist</b>	<b>10</b>

## INTRODUCTION

This purpose of this document is to provide clay shooting organisers with:

- an introduction to the principles of risk assessment; and
- guidance on the areas of risk that need to be considered, mainly in relation to clay shooting activities, but the principles are relevant to all forms of shooting activity.

## HEALTH AND SAFETY

### WHY?

We are all aware that businesses have responsibilities in relation to issues of health and safety because of legislation, such as the Health and Safety at Work Act 1974 etc, But, the need for health and safety awareness is not driven by government alone. To secure or contain the cost of cover, insurance companies require policyholders to demonstrate that they have sound risk management procedures in place. Landowners, wishing to satisfy themselves that their tenants are responsible, are also requesting sight of health and safety documents. However, a word of comfort, although the financial logic may not at first sight be apparent, businesses which invest the most in good health and safety tend also to be the most successful.

### WHERE TO BEGIN

Underpinning all that a business does in relation to health and safety, should be a health and safety policy. This does not have to be complex and it will certainly state the obvious, nevertheless, as a starting point it is important it should:

- Identify who holds overall responsibility for health and safety;
- Make it clear who is to do what if any of the responsibilities are to be delegated;
- Emphasise that health and safety obligations extend to everyone, not just to those with defined areas of responsibility.

## RISK ASSESSMENT

### RISK ASSESSMENT - WHAT IS IT?

Risk assessments are a legal requirement for work activities since the introduction of legislation in the UK in 1992. However, the concept is not new - we have been doing them informally for years, devising safe ways of working as a consequence. The legislation now requires us to specifically conduct assessments and record any significant findings. The reasoning behind all this is to demonstrate that businesses are doing all that is reasonably practicable to ensure the health, safety and welfare of all people, whether or not they are employees, who may be affected by its activities, thus avoiding prosecution and litigation.

The main purpose is to demonstrate that the business is being conducted in a safe and controlled manner. The consequences of not doing this could be criminal prosecution and civil proceedings – bearing in mind that **individuals** may be singled out.

The mechanism for achieving and demonstrating control is **risk assessment**.

### Don't panic!!

We all conduct risk assessments every day without knowing it. Let's do one -

Imagine that you are carrying two heavy bags of shopping, and that you are waiting to cross a busy trunk road with a 70-mph speed limit. You look both ways and see two speeding lorries approaching on both sides of the carriageway. Both are about 25 yards away from you. Do you step out to cross the road?

The sane ones amongst you will have answered “no” to this question, but why? The reason is simple. You know that if you step out onto the road, the chances of being hit by a lorry are very high indeed. You also know that the consequences of impact do not bear thinking about. You have put the two together and decided that the risk is too high. You have done a risk assessment.

## DEFINITIONS - HAZARD AND RISK

Before we proceed, we need to be absolutely certain about two very important definitions, namely those of HAZARD and RISK.

A HAZARD is defined as SOMETHING WITH THE POTENTIAL TO CAUSE HARM. In the previous road-crossing scenario, a speeding lorry is therefore a hazard since it *could* run someone over or cause damage in some other way.

A RISK is a combination of two things. It is defined as the LIKELIHOOD that harm will be caused by the hazard, together with the SEVERITY of the outcome. In doing your risk assessment above, you’ve concluded that the likelihood of being hit by a lorry is very high, and that the outcome is likely to be your death. Crossing the road in this situation is therefore a high risk.

If you find yourself with two heavy bags of shopping, standing by the same road on a quiet Sunday, the situation may be totally different. You look both ways again, and the only vehicle you see is a slow-moving bicycle approaching you, and it’s about 200 yards away. Do you cross the road? Of course you do, because you have decided that the likelihood of being hit by the bicycle is very low, and even if it did hit you, your life insurance policy is hardly likely to be called on to pay out. It’s a low risk situation, isn’t it?

## WHAT IS AN ASSESSMENT

An assessment is therefore a judgement, and it’s important to realise that not everyone has the same opinion on the exact level of risk, since this is founded on experience and other personal factors. It is also important to realise that in life, there is no such thing as a risk-free situation. Risks have to be evaluated and controlled, the high risk ones taking priority in terms of the time, effort and expense needed to control them. This is the basis of the term ‘reasonably practicable’, and this is the defence in both criminal and civil proceedings. We need to show that we have evaluated the risks from our activities and are working to control these risks on a priority basis – the trivial risks may not even warrant specific action to reduce them. Hence the law requires us to document ‘the significant findings’ of our assessments and what we are doing to reduce them. Once these actions have been put into effect, we then document that they are being controlled. It is not an exact science, and in our situation, it’s not rocket science either - we are probably managing our risks during our activities anyway, it’s just a matter of proving that we are.

It is important not to over-complicate things and generate too much paperwork. From what has been written above, you may have noticed that if there are no hazards present in a given

situation, it follows that there are no resultant risks, doesn't it? Therefore the first stage in *avoiding* having to do risk assessments is to identify and remove hazards at source. For instance, a deep hole in a clubhouse access road is a hazard (someone could trip or damage occur to a car), but by filling in the hole there and then, a documented risk assessment is avoided. This highlights the importance of **regular hazard spotting tours/inspections**. Do you carry these out?

The identification of hazards is therefore crucial to everyday hazard removal. If they cannot be removed, then this identification forms the basis of risk assessment and the evaluation of the level of risk. We can prioritise our actions to introduce control measures to reduce the level of risk to an acceptable level.

## HAZARDS

As we have seen, a hazard is something with the *potential* to cause harm. Again, whether it actually *will* because harm depends on the circumstances.

The world is full of hazards, but let us concentrate on those inherent on our sporting activities.

A team approach is a powerful aid in hazard identification, and it is often useful to consult a categorised checklist as an aide-memoire. Therefore, possible hazards and hazardous operations in relation to our activities can be grouped as follows -:

Access/egress	Vehicles
Topography	Electricity
Participants	Members of the public
Gun handling	Alcohol/drugs
Trap operation	Noise
Improper instruction	Inadequate supervision
Waste disposal	Target debris and shot fall
Emergencies	Weather conditions
Handling of loads	Cartridge safety/storage
Use of chemicals	Machinery
Catering	Personal protective equipment

The categories above are by no means exhaustive. A more detailed hazard checklist is set out on pages 11 and 12.

You will also have noticed that there are organisational hazards in addition to physical hazards. This will be dealt with later.

## ASSESSMENT OF RISKS

The next step in the risk assessment process is to identify who could possibly be harmed and how. This entails the evaluation of the risk posed by the hazards that cannot be dealt with on the spot or soon after. It is a good idea to break down activities/hazards into groups, as above, and assess these in turn.

We need to ascertain whether the risk is certain, likely, possible, unlikely or remote, so that a priority action plan can be drawn up. The evaluation has to take into account the adequacy of controls already in place. A form for the documentation of assessments is given on page 13. This can be photocopied for use.

We have seen that risk is a combination of the likelihood of the hazard being realised, together with the foreseeable severity of the outcome. A useful tool for evaluating the level of risk is a matrix diagram which combines them such as the chart below

Risk Matrix								
Risk rating guidance	Likelihood (L)	5 - certain	5	10	15	20	25	Likelihood (L) x Severity (S) = Risk Rating (RR).
		4 - likely	4	8	12	16	20	
		3 - possible	3	6	9	12	15	
		2 - unlikely	2	4	6	8	10	
		1 - remote	1	2	3	4	5	
			1 trivial injury	2 minor injury	3 notable injury	4 major injury	5 fatal	
Severity (S)								
Acceptability of risk guidance	<b>High-risk: 15 – 25</b>		High-risk activities should cease immediately. Further effective control measures to mitigate risks must be introduced.					
	<b>Medium-risk: 8 – 12</b>		Medium-risks should only be tolerated for the short-term and only whilst further control measures to mitigate the risks are being planned and introduced.					
	<b>Low-risk: 1-6</b>		Low-risks are largely acceptable. Where it is reasonable to do so, efforts should be made to reduce risks further.					
Guidance. When completing a risk assessment, you should:	<ol style="list-style-type: none"> <li>1. Identify the persons at risk and the significant hazards.</li> <li>2. Calculate an initial RR for the activity.</li> <li>3. Identify risk control measures that reduce the risks to an acceptable level.</li> <li>4. Calculate a revised RR - you should consider how much safer the task will be if the control measures are followed. Here, you should consider changing both the likelihood (L) and the severity (S) ratings.</li> </ol>							
<b>Note.</b> Ideally, you should look to reduce the risks so that the task can be classified as “low-risk”.								

## CONTROL MEASURES

It may well be that you decide that more needs to be done, apart from developing documented ground safety protocols and guidance, to control other risks.

The selection and implementation of the most appropriate method of risk or hazard control is a crucial part of the risk assessment process. It is important to remember the term '**reasonably practicable**', which is effectively a cost benefit analysis - the higher the risk level, then the more expense in terms of time, money and effort may need to be spent on reducing that risk. Hence trivial risks may sometimes be ignored.

There is an order of priority of control measures/precautions, often called the hierarchy of controls. These are set out in the list below and it is always preferable to start at the top even if you know, in many cases, that the preferred control will be somewhere in the middle or near the bottom. In many cases there may be more than one control option available for a similar degree of control of risk. In many cases more than one control option will be the correct choice. The hierarchy of precautions are:

<i>Item No.</i>	<i>Hierarchy of Precautions</i>	<i>Comments</i>
1.	Elimination	i.e. Do we need to do this at all or do we need to do it this way? Can we get rid of it?
2.	Substitution	By something less hazardous or risky
3.	Enclose	Enclose it in a way that eliminates or controls the risk
4.	Segregation of People	
5.	A Safe System of Work that reduces the risk to an acceptable level	
6.	Written Procedures that are known and understood by those affected.	
7.	Adequate Supervision	
8.	The identification of Training Needs	
9.	The Provision of Information and Instruction such as signs, handouts etc.	
10.	Personal Protective Equipment	

4 to 9 of the above can be seen as representing shoot safety control procedures. They can also be used as risk control measures for other risks, such as control of members of the public at events, site transport/vehicle movement etc. You may be wondering why they are positioned below where you'd expect them in the hierarchy, given all that's been stated previously. The reason is simple - human behaviour. Procedures, supervision and the like are only effective if they are put into effect.

## PROCEDURES

Remember that the evaluation process takes into account the adequacy of control measures already in place. For example, you may identify that there is a risk to the public from approaching too near to guns, where the likelihood of being shot may be high and the severity of the outcome similar. But in reality, what's the risk? No doubt you'll have arrangements in place to prevent this, such as supervision, identification of safety areas and the like, and these can be taken into account when assessing the adequacy of existing control measures. These control measures have probably been put into effect over the years to ensure that this aspect of your ground is safe.

But is this a formal system or ad-hoc? How do you organise this aspect? Is there a formal safety protocol, contained within a written procedure or rule book which not only states what needs to be done but also designates specific responsibilities for ensuring that it is done? Or is it less safe, based on custom and practice, where you *expect* people to know what to do?

Organisational hazards were mentioned beforehand and will be a crucial factor in the risk assessment process. The methods by which you control safety are, in effect, risk control measures which in many cases may be well understood but informal. Remember, you have to *prove* that risks are controlled. It is therefore anticipated that a major outcome of shoot risk assessments will be *the documentation of safety procedures and guidance*, together with written responsibilities for administering them. The action/recommendation section of the risk assessment form can be used to state whether or not this is required. A blank template for a risk assessment form can be found on page 13.

A suggested framework for the documentation of procedures follows. It is not exhaustive, but a key issue for you will be in deciding specific responsibilities for their management. You will see that they bear a resemblance to the list of hazards and hazardous operations given previously.

### Items for consideration -:

#### Shoot Days -

- ◆ “Club”/private events – attenders may be expected to have a better knowledge of the ground and the regulations but they may be more relaxed about following them.
- ◆ Open events and competitions– larger numbers of people and vehicles may be present and awareness of your rules may be limited

<i>Operational matters e.g.</i>	<i>Public information, e.g.</i>
◆ Conduct & frequency of risk assessments	◆ Access routes and restrictions
◆ Equipment maintenance and testing	◆ Speed limits and parking controls
◆ Safety instructions and training	◆ Control of children and dogs
◆ Equipment operation and training for use	◆ Security of guns and ammunition
◆ First aid	◆ First aid and emergency procedures



◆ Fire safety	◆ Permitted users of facilities
◆ Accident management and reporting	◆ Permitted hours
◆ Security	◆ Range officers
◆ Firearms control	◆ Signs and signals
◆ Welfare, smoking, alcohol and/or drugs	◆ Gun handling
◆ Catering	◇ General gun safety
◆ Vehicles and load handling	◇ Use of gun slips/cases
◆ Waste disposal	◆ Cartridges
◆ Contractors	◇ Types to be used
◆ Supervision of participants and others	◇ Waste disposal
◆ Barriers, fences and signage	◆ Access to shooting lines
◆ Signals and communications	◆ Direction of guns
◆ Consultation and suggestions	◆ Alcohol

As previously stated, the list is not exhaustive but can also be used as a hazard framework to start your risk assessments in conjunction with the hazard/hazardous operations list.

## CONCLUSION

Risk assessment is nothing to be frightened of. A common sense, simple approach works best. The process need not be bureaucratic or time consuming, but it is necessary to demonstrate that you have paid adequate attention to safety.

One final point – remember to review your assessments if any significant changes to your business occur. It's good practice to review them every year or so in any case.

## **HAZARD IDENTIFICATION CRITERIA REMINDER**

The following checklist should be used to structure the responsibilities and arrangements for ensuring that your ground and the events taking place on it run as safely as reasonably practicable. It will form the basis for the compilation of your health and safety file. It is not exhaustive but should effect good planning and communication.

In most cases, only the agreed procedures/methods to effect safety under each heading need to be written down. However, should investigation reveal that risks are **SIGNIFICANT**, then such findings, together with the appropriate control measures to reduce these risks to the lowest level reasonable practicable, also need to be documented under the relevant heading. For instance, it may be that tower scaffolds are initially planned to be erected adjacent to overhead power lines, or that a deep unfenced pool of water exists on site into which children could fall. In these cases, write down the risks i.e. electrocution, drowning, together with the anticipated likelihood of the hazard being realised (the severity of the outcome in both cases must be considered high). Then think about how to reduce the risk, e.g. relocate the tower scaffolds and securely fence off the pool unless it can be drained. This will show that we have actually assessed the significant risks and done something about them.

The resultant document(s) arising from the consideration of the form will need to be entered in the Health and Safety File, together with agreed responsibilities and action dates. Completion of these actions should be signed off.

### HAZARD IDENTIFICATION REMINDER CHECKLIST

<b>Access e.g. -</b>	<b>Topography e.g. -</b>
Slip/trip	Ground conditions
Fall of person	Condition of roads and car parks
Fall of object	Proximity of public footpaths
Obstruction	Proximity of livestock
Projection	Barriers / fencing / signage
Confined / enclosed space	Weather effects – ice, flooding, fire risk
Poor housekeeping	
Separation of vehicles and pedestrians	<b>Electricity e.g. -</b>
Access by emergency vehicles	Damaged wiring / poor switches
<b>Services e.g. -</b>	Portable equipment
Overhead / underground electrical supply	Use in hazardous environment
Gas	Access to live equipment
Water supply – pipework, valves etc.	Poor maintenance
Surface water drains	Not tested
Foul pipes, drains and septic tanks	Exposure to weather
Telephone cables	
	<b>Transport e.g. -</b>
<b>Organisational e.g. -</b>	Collision
Poor training / instruction	Poor layout
No procedures	Signage
Poor supervision	Condition of roads
No line of command	Parking
Discipline	Speeding
Accountability	Vehicle suitability
	ATVs
<b>Office e.g. -</b>	Trailers – loading and manoeuvre
Workstations (VDU)	Driver competence
Electrical appliances (PATS testing)	

Alarms and extinguishers	<b>Noise e.g. -</b>
	Proximity of neighbours
<b>Gun safety e.g. -</b>	Effect of wind direction
Loading and unloading	Guns
Use of slips / cases	Vehicles
Range control protocols	
Supervision	<b>Security e.g. -</b>
New and young shots	Guns
Alcohol / drugs	Ammunition
Disciplinary procedures for unsafe shooters	Cash
<b>Trap operation e.g. -</b>	<b>Fire / explosion e.g. -</b>
Operator training	Waste accumulation
Access and egress	Ammunition storage
Operator protection – noise, debris and shot fall	Fuels and flammable liquids
Electrical mechanisms and wiring	Chemical storage
Loading (weight carrying / trapped hands)	Welding / grinding
Signals	Maintenance / contractors
Working at height	Smoking
<b>Handling of loads e.g. -</b>	<b>Target and shot fall e.g. -</b>
Too heavy	Cartridge cases
Awkward postures	Broken clays
Repetitive movement	Unbroken clays
Stooping / twisting	Lead pollution
Poor grip	
No mechanical assistance	<b>Protective equipment e.g. -</b>
Awkward / bulky	Unsuitable
	Not worn
<b>Tools e.g. -</b>	Not maintained

Unsuitable	Incompatible
Modified	
Not maintained	<b>Emergencies e.g. -</b>
Training for use	Communication / notification
	Responsibilities
<b>Waste disposal e.g. -</b>	Control point
Bins at firing points	Contact numbers
Briefings	public address / notification
Collection of waste from firing points	
Disposal of cartridge cases	<b>Catering e.g. -</b>
Toxic waste and fumes	No hygiene training
	Food storage
<b>Welfare e.g. -</b>	Cleanliness
Toilet provision	Personal hygiene
Washing / drying facilities	Temperature control
Disabled facilities	Raw / cooked food storage
Drinking water	Selection of caterers
First aid provision	Washing facilities
Accident reporting	

The above list is presented as a guide, it is not comprehensive and should be considered in the context of your ground and the activities taking place on it.

**RISK ASSESSMENT - BLANK**

<b>Risk assessment - topic/area covered</b>	
Location(s):	
Department/staff:	
Tasks/activities:	
Other information:	









<b>Risk assessment sign off</b>					
Prepared by:		Signature:		Date:	
Reviewed by:		Signature:		Date:	
Date for review:	This risk assessment should be reviewed if additional risks not covered in this assessment are identified or if there is any reason to suggest that the control measures are deemed to be insufficient.				

<b>Document issue record</b>				
Amendment number	Issue date	Date amended	Person amending	Remarks

<b>Distribution schedule</b>				
Registered number	Issue number	Date	Name	Designation

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Risk Matrix								
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Guidance. When completing a risk assessment, you should:	5. Identify the persons at risk and the significant hazards. 6. Calculate an initial RR for the activity. 7. Identify risk control measures that reduce the risks to an acceptable level. 8. Calculate a revised RR - you should consider how much safer the task will be if the control measures are followed. Here, you should consider changing both the likelihood (L) and the severity (S) ratings.							
<b>Note.</b> Ideally, you should look to reduce the risks so that the task can be classified as “low-risk”.								

Personal protective equipment (PPE) assessment								
In many instances, you will be able to reduce risks further by asking staff/others to wear/use PPE. You should identify which items are required for the task here:								
Type of PPE:								
	Head (BS EN 397)	Foot (BS EN 345-1)	Eye (BS EN 165:2005)	Hand (BS EN 420:2003)	Hearing (EN 352-1)	Hi-Visibility Vest (BS EN 471)	RPE	Fall Arrest (BS EN 361)

Additional requirements (list here):	NA
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**Note.** PPE must only be considered as, when other control measures, such as guarding, local exhaust extraction, preventing noise at source, eliminating the need to work at height etc. are not possible. PPE should always be considered as a last resort option. PPE should only be worn when there is reasonable justification for doing so.

Risk assessment									
Activity	Persons at risk	Significant hazards	Initial			Risk control measures	Residual		
			L	S	R		L	S	R