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| **Risk Assessment** |
| **Risk Assessment for the activity of** | **Firing .22 Calibre Target Rifles at Stationary Targets from a Prone Position** | **Date** | **09/06/2020** |
| **Club or Society** | **Southampton University Rifle Club** | **Assessor** | **Matthew Crossley** |
| **President or Students’ Union staff member** |  | **Signed off** |  |

| ***PART A***  |
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| **(1) Risk identification** | **(2) Risk assessment** | **(3) Risk management** |
| **Hazard** | **Potential Consequences** | **Who might be harmed****(user; those nearby; those in the vicinity; members of the public)** | **Inherent** |  | **Residual** | **Further controls (use the risk hierarchy)** |
| **Likelihood** | **Impact** | **Score** | **Control measures (use the risk hierarchy)** | **Likelihood** | **Impact** | **Score** |
| Sound from firing of rifles | Hearing Damage-a .22LR rifle can produce a muzzle report of 140dB, which is loud enough to cause permanent hearing damage | Those in the range while firing is in progress | **5** | **4** | **20** | Anyone in the range while firing is in progress is to wear hearing protection | **1** | **2** | **2** |  |
| Ricochets from fired rounds | Impact from bullet fragments ricocheting from downrange can cause injury (injury likely to be minor due to very low velocity of bullet fragments after ricochet) | Those in the range while firing is in progress | **3** | **2** | **6** | The backstop consists of a wooden frame (which cannot cause ricochets) and a steel plate angled downwards such that ricochets should be mitigated. Items stored downrange are kept to a minimum and kept to the sides of the range | **2** | **2** | **4** |  |
| Inhalation of harmful substances, smoke from gunpowder and lead dust | Health problems from inhalation of harmful substances | Those in the range while firing is in progress | **4** | **3** | **12** | Extraction fan and vents must be in operation at the firing point while the range is in use | **2** | **1** | **2** |  |
| Out of battery detonation from ‘hangfire’ (round failing to detonate as desired, then detonates after being removed from chamber) | Injury from case fragments expelled by detonation.  | Shooter and those in immediate proximity to shooter | **3** | **4** | **12** | All shooters made aware of misfire procedure (leave misfired round in chamber for at least 30 seconds to ensure that a hangfire does not occur), new shooters to be assisted by experienced shooters initially. | **1** | **4** | **4** | Any batch of ammunition found to be misfiring excessively to be checked and discarded if appropriate. Coaches at range to assist if needed. |
| Negligent or inappropriate discharge of firearm | Being shot, fatal injury possible | Anyone on premises, though practically only those in the range | **3** | **5** | **15** | Shooters are not permitted to shoot without being given safety instruction by an experienced club member. New shooters will not be given direct access to ammunition until accompanying experienced club member is satisfied they are competent. All members will be required to read and sign the range safety document before being allowed to shoot.Members are instructed to only load handle a rifle on the firing point when the range is clear, and only load the rifle when they are aiming at the target and ready to fire. They are instructed to unload the rifle if they need to stop pointing the rifle at the target for any reason. This is clearly stated on signs by each firing point to remind members of this requirement.  | **1** | **5** | **5** | The utmost care and attention will be paid to ensuring that breaches in range safety protocol do not occur, and any errors may lead to the member involved being prevented from shooting until the committee is satisfied that they can follow all required procedures. Trained coaches (several coaches qualified for 2020 year) will be present with two always at range when open.  |
| Handling ammunition | Lead poisoning | Any member handling ammunition | **3** | **3** | **9** | Members to be instructed to wash hands after having handled ammunition, consumption of food in clubroom to be discouraged | **1** | **3** | **3** |  |
| Slip/Trip hazards | Injuries from falling onto floor or other objects | Anyone in the range/clubroom | **3** | **3** | **9** | All objects that may prove to be a trip hazard to be kept away from possible walkways in the range building, or clearly marked where needed. Liquid spills in range to be cleaned up as soon as possible.  | **1** | **3** | **3** | First aid kit accessible in range, NHS 111 or 999 will be called in the unlikely event of moderate/serious injuries. |
| Contact with harmful substances during cleaning of equipment | Harm from solvents and cleaning oils | Members cleaning equipment, and those in the vicinity while cleaning is taking place | **3** | **2** | **6** | Members to be trained on correct procedure for cleaning rifles prior to doing so. When solvents are being used the door is to be kept open to allow adequate ventilation  | **2** | **2** | **4** | First aid kit accessible in range. NHS 111 or 999 will be called in the (unlikely) event of moderate/serious injuries. |
| Injury whilst shooting as a result of improper shooting position | Muscle strains and joint injuries in arms, especially wrists and hands | Members shooting with jacket/sling | **3** | **3** | **9** | Members to receive thorough coaching in first sessions to ensure that their shooting position does not cause undue strain on their arms, hands or wrists. Advice and coaching to be made available to all members regardless of experience who feel that their shooting position is causing discomfort or harm | **2** | **3** | **6** | Train club members to higher standard of coaching (possibly NSRA Club Instructor or Club Coach standards) to improve chance of preventing members from being in harmful positions.Trained coaches (several coaches qualified for 2020 year) will be present, always 2 at range. |
| Injury from sharp objects | Cuts and scrapes | Those handling objects in range and clubroom | **3** | **2** | **6** | Objects that are required to be rough or sharp (scissors/knives for cutting cleaning cloths, screwdrivers, other tools) are to be stored in a toolbox when not in use, and only those who are aware of the risks are to use them. If an object is damaged or wears in such a way that it becomes sharp it will be fixed immediately | **2** | **2** | **4** | First aid kit accessible in range, in the case of heavy bleeding which does not cease, further medical assistance will be sought (e.g. NHS 111).  |
| Detonation of ammunition from mishandling (mostly being dropped) | Injury from fragments of bullet casing and ammunition box | Anyone in the range/clubroom | **2** | **4** | **8** | Danger of ammunition detonating if dropped to be expressed to members, advise that ammunition should be carried as little as possible | **1** | **4** | **4** | First aid kit accessible in range for minor injuries, NHS 111 or 999 will be called in the (unlikely) event of moderate/serious injuries. |
| Injury from equipment malfunction | In most severe cases, a breech explosion could cause severe injury or death. This is extraordinarily unlikely however. | Shooters, those in the immediate vicinity | **1** | **5** | **5** | Regular inspection of equipment by experienced members to be carried out, any questionable equipment to be removed from use and inspected by a qualified gunsmith. Rifles are to be visually inspected for safety issues before each use, with a more detailed inspection to be carried out at least once a month. | **1\*** | **5** | **5** |  First aid kit accessible in range for minor injuries, NHS 111 or 999 will be called in the (unlikely) event of moderate/serious injuries. |
| Malicious use of firearms | Someone with malicious intent could use firearms and ammunition to cause severe injury or death | Anyone in the range/clubroom, potentially those in surrounding area | **3** | **5** | **15** | Per legal requirements, anyone who the committee deems to be unsuitable to be around firearms is not to be permitted to shoot. The information of each member is passed to Hampshire Police upon joining, and should they pass on concerns over any member they will not be permitted to continue membership of the club. Committee are required to prevent access to the firearms of anyone that displays concerning behaviour, while taking an abundance of caution in this matter. Some guidance on this matter is given in the document from the Home Office entitled “Approval of Rifle And Muzzle-Loading Pistol Clubs”.The firearms and ammunition are locked in secure cabinets separately per legal requirements. Access to the keys to those cabinets is to be limited to the committee (or a subset thereof). During taster sessions the ammunition and rifles are to be kept separate until required by the accompanying experienced members. A committee representative responsible for the mental health and wellbeing of members will work to mitigate the risk of malicious firearm usage. Existing (or new) members who are thought by the committee to be a danger to themselves or others will have their access restricted, and Hampshire Police may be informed in the most extreme cases. | **1** | **5** | **5** |  |
| Incident/injury during committee meeting or club meeting | Trips/ slips/ overcrowded rooms resulting in injury  | Club members or committee at meeting | **2** | **3** | **6** | Hold meetings in large pre-booked rooms at Highfield. Point out any slip/trip hazards. | **1** | **2** | **2** | At the start of meetings, ensure pointing out of fire exits  |
| Incident during social events | Injury to participants in social activity  | Club committee and members/ those nearby | **3** | **2** | **6** | Appointed social secretaries and committee members ensure to point out fire exits/risks at start of social event, with regular checks that no new risks have presented themselves through the event.  | **2** | **1** | **2** |  |

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| ***PART B – Action Plan*** |
| **Risk Assessment Action Plan** |
| **Part no.** | **Action to be taken, incl. Cost** | **By whom** | **Target date** | **Review date** | **Outcome at review date** |
|  | Tidy range/clubroom to remove or mitigate possible trip/slip hazards | Club committee | (before general opening of range) | (before general opening of range) |  |
|  | Annual check of first aid kit to ensure first aiders and committee members know location and that contents are still in date | Club committee/Equipment secretary | (before general opening of range) | (before general opening of range) |  |
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| Responsible committee member signature: | Responsible committee member signature: |
| Print name: MATTHEW CROSSLEY | Date: 23/09/2020 | Print name: KACPER WLODARCZYK | Date: 23/09/2020 |

**Assessment Guidance**



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| 1. Eliminate
 | Remove the hazard wherever possible which negates the need for further controls | If this is not possible then explain why |  |
| 1. Substitute
 | Replace the hazard with one less hazardous | If not possible then explain why |
| 1. Physical controls
 | Examples: enclosure, fume cupboard, glove box | Likely to still require admin controls as well |
| 1. Admin controls
 | Examples: training, supervision, signage |  |
| 1. Personal protection
 | Examples: respirators, safety specs, gloves | Last resort as it only protects the individual |

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| **LIKELIHOOD** | 5 | 5 | 10 | 15 | 20 | 25 |
| 4 | 4 | 8 | 12 | 16 | 20 |
| 3 | 3 | 6 | 9 | 12 | 15 |
| 2 | 2 | 4 | 6 | 8 | 10 |
| 1 | 1 | 2 | 3 | 4 | 5 |
|  | 1 | 2 | 3 | 4 | 5 |
| **IMPACT** |

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| Impact | Health & Safety |
| 1 | Trivial - insignificant | Very minor injuries e.g. slight bruising |
| 2 | Minor | Injuries or illness e.g. small cut or abrasion which require basic first aid treatment even in self-administered.  |
| 3 | Moderate | Injuries or illness e.g. strain or sprain requiring first aid or medical support.  |
| 4 | Major  | Injuries or illness e.g. broken bone requiring medical support >24 hours and time off work >4 weeks. |
| 5 | Severe – extremely significant | Fatality or multiple serious injuries or illness requiring hospital admission or significant time off work.  |

Risk process

1. Identify the impact and likelihood using the tables above.
2. Identify the risk rating by multiplying the Impact by the likelihood using the coloured matrix.
3. If the risk is amber or red – identify control measures to reduce the risk to as low as is reasonably practicable.
4. If the residual risk is green, additional controls are not necessary.
5. If the residual risk is amber the activity can continue but you must identify and implement further controls to reduce the risk to as low as reasonably practicable.
6. If the residual risk is red do not continue with the activity until additional controls have been implemented and the risk is reduced.
7. Control measures should follow the risk hierarchy, where appropriate as per the pyramid above.
8. The cost of implementing control measures can be taken into account but should be proportional to the risk i.e. a control to reduce low risk may not need to be carried out if the cost is high but a control to manage high risk means that even at high cost the control would be necessary.

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| Likelihood |
| 1 | Rare e.g. 1 in 100,000 chance or higher |
| 2 | Unlikely e.g. 1 in 10,000 chance or higher |
| 3 | Possible e.g. 1 in 1,000 chance or higher |
| 4 | Likely e.g. 1 in 100 chance or higher |
| 5 | Very Likely e.g. 1 in 10 chance or higher |