



United Fire Brigades' Association

WATERWAYCHALLENGE

GENERAL CONDITIONS, REQUIREMENTS & SPECIFICATIONS for Waterway Challenges

August 2014

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ENTRY REQUIREMENTS

BRIGADES

Brigades shall:

- Be eligible to enter a composite team **providing that team members are all from the same province (as determined geographically by Provincial Fire Brigade Association's). All composite teams will be subject to Technical Panel approval.** ~~provided that prior written approval has been obtained from the Officer in Charge of both brigades.~~ If the **composite team** entry is for a National Waterway Challenge, the team must have competed in a Regional or Provincial Waterway Challenge in the 12 month period prior to the date of the National Challenge.
- Be eligible to enter one four-person team and/or one two-person team per brigade into the UFBA National Waterway Challenge provided the team has competed in a Regional or Provincial Waterway Challenge in the 12 month period prior to the date of the National Challenge. **Any additional brigade teams will be considered on a case by case basis by the Technical Panel, with the final decision being that of the Technical Panel convenor.**
- Ensure team members are a full member of a brigade, before they are allowed to compete at a UFBA National Championship Challenge.

PROVINCIAL ASSOCIATIONS

Provincial Secretaries shall:

- Submit to the UFBA office before the close of entries to the National Challenges, the summary of officials' competencies.

THE UFBA

The UFBA ~~Chief Executive Officer~~ **Events Team** shall:

- Advise all teams entered of their acceptance.
- Advise team funding as per UFBA funding Policy.

TEAM REQUIREMENTS

TEAMS

Teams shall:

- Comprise of a maximum of five persons for a four person team and three persons for a two person team.
- No person can compete in both two and four person sections at the same UFBA funded challenge.
- Assemble for the roll call, an inspection and the official opening of the challenges. Any team not attending this inspection may be disqualified.
- Be permitted a maximum of three minutes from the time it is called to the track until the start of the event.
- ~~• Face disqualification upon entering the challenge area if not competing or picking up gear.~~
- Ensure they compete in all relevant events i.e. four person teams must compete in all events from No 41 to No 49 inclusive, and two person teams must compete in all events from No 21 to No 28 inclusive, and Event No 28.
- Ensure they comply with the requirement to be fully dressed, including helmets, before entering the track to prepare prior to actually competing.
- ~~• Stand at the start mark facing fire appliance properly at attention with both heels on ground and arms at side of body.~~
- Ensure that the Field Secretary is advised as soon as possible if a team member becomes ill, injured or incapacitated for any reason and if required, produce a medical certificate as proof of the incapacity.
- Notify the Field Secretary prior to the starting time giving their reason for not being able to compete in any event.
- Face disqualification for use of disrespectful language or behaviour during or between any event.
- Reassemble on the start line after being recalled following starting break. The team will be readdressed only if there is a starting malfunction (see marshall/starter).
- Have 15 minutes to lodge a protest from the completion time as indicated on the run card. Any protest against a referee's ruling must be lodged with the Field Secretary.
- Submit any protest in writing on the prescribed form accompanied by a cash deposit of \$40.00.
- Be entitled to use a substitute that meets the approval of the UFBA if a team member becomes ill, injured or incapacitated during events. The competitor who has been substituted may resume their position in the team when able to do so and, if necessary, be able to produce a medical clearance.
- ~~• Be disqualified if any team member adjusts any equipment before the challenge has officially started.~~
- ~~Teams shall~~ Have one person present in the protest room only to present evidence in support of the protest enquiry and speak on behalf of the team's written submission.
- Ensure that only the team members physically competing in each particular event enter the challenge area to stow the appliance prior to each event (i.e. the third / fifth team member cannot assist). Failure to comply may result in a "No Test" for that event.
- Comply with the requirements to be fully dressed, including helmets, during each event.

TEAM CAPTAIN

The Team Captain shall:

- Ensure the team registration card is correctly completed and submitted to the Field Secretary prior to the challenge commencing.
- Attend the Team Captains' meeting with the Technical Panel prior to the challenge commencing.
- Have the right to object to the Referee if it is considered a Judge is compelling the team to place gear contrary to the printed conditions.
- Respond to the Marshall immediately the team is called.
- Approach the Referee for interpretation of the event being run if required.

TEAM UNIFORM

- At all challenges held under the auspices of the UFBA, team members will run in the approved team uniform during all events.
- The approved uniform will consist of full-length sleeves and full-length trousers. Sleeves shall not be rolled up nor will they be taped up at the cuff. Trousers may be tucked into the socks and no tape is to be used above knee height.
- Where Service-type jackets are worn during challenges, then no belt is to be worn around the waist.
- New Zealand Fire Service approved safety glasses (including tinted) can be worn during the event. Sunglasses are not to be worn.

FOOTWEAR

- No spikes e.g. cricket or golf sprigs or athletic spikes to be worn.
- Branch person on tower must not wear football boots or footwear with similar hard sprigs. Level one boots or touch shoes are suitable.

HELMETS

- ALL helmets must be manufactured to meet the minimum standard **EN 397 AS/NZS 1801 Type 32**.
- Helmets shall be worn during all events. **In the event of a helmet falling off, that member must take immediate action to put it back on.**

SPONSORSHIP

- Sponsorship is not to be displayed on Fire Service protective clothing.

OFFICIALS

UFBA

UFBA Events Team shall:

- Take minutes at the Team Captain's meeting and make copies available for collection from the Field Secretary's office.
- Provide up-to-date and accurate rules/guidelines cards to each Track Judge.

~~UFBA Chief Executive Officer shall:~~

- Call for nominations from brigades for potential officials for Regional and National Challenges.
- Advise officials of their positions prior to the due date for challenge registrations.

Technical Panel shall:

- ~~Make recommendations to the UFBA CEO as to who should be appointed as~~ **Appoint** officials to run the National **and Regional** Challenges.
- Approve the track setup with the equipment that is available on the day.

OFFICIALS

Officials shall:

- Meet the Technical Panel at a directed time and location prior to the ~~competition's~~ **challenge** commencing.
- Attend the Team Captain's meeting.
- Dress for challenges to comply with Fire Service dress regulations or wet weather gear including Fire Service or UFBA approved caps or sun hats. **Shorts are not an acceptable form of dress.**
- **Have judged or refereed in a Regional or Provincial Waterway Challenge in the 12 month period prior to the date of the National Challenge in order to be considered as a judge or referee at any National Event.**
- **The referee and Marshall / Starter shall be clearly identifiable.**
- ~~Wear colour coded jerkins or hat covers to identify appropriate positions:~~

~~Referee ————— orange~~

~~Judges ————— red~~

~~Marshall / Starter ————— blue~~

- NOT use cell phones on the track during challenge.
- NOT use individual stop watches during challenge.
- NOT smoke on the track.
- Approach the Referee if seeking interpretation of the event being run.
- Only allow competitors competing or picking up gear on to the track.

REFEREE

The Referee shall:

- Be the designated safety officer in charge of that event.
- Have the authority to stop an event in the likelihood of any person or persons being injured or if any equipment is in danger of being damaged. Such a stopped event will result in a 'No Test'. The time will be recorded as the slowest time for that event plus 10 seconds.
- Be responsible for the placing and management of the officials on the track.
- Sign all time cards and record the appropriate penalties (Field Secretary to total run time).
- Determine and approve a re-run if requested by the Team Captain where appropriate.
- Have the sole rights of imposing penalties after considering reports from Judges.
- Give an interpretation of the event being run if requested.
- In the event of a re-run, change a team's draw position in consultation with the Marshall.
- Disqualify any team whose members practice with or adjust any equipment without authority once the challenge has officially started.
- Be responsible for the security of equipment during any breaks and at the conclusion of the challenge.
- Not allow the removal of any equipment from the track at the conclusion of an event, pending any protests.
- Advise track officials of any pending re-runs.

JUDGES

Judges shall:

- Be assigned to a position by the Referee and shall remain in that same position until the completion of that particular event.
- Be responsible for fair and accurate judging of all events that they are assigned to officiate at.
- ~~Ensure teams comply with the requirements to be fully dressed, including helmets, at the conclusion of each event.~~
- **Ensure all team members are FULLY DRESSED, including helmets, when they enter the track to place equipment in the appliance prior to the commencement of an event.**
- ~~Teams will be inspected by the Judge in the handiest position at the conclusion of the event.~~

MARSHALL / STARTERS

The Marshall/Starter shall:

- As far as possible, ensure that teams compete in the order of the draw.
- Call a team three times and if there is no response, the team may be disqualified.
- Allow three minutes from the time a team is called to assemble their gear in the appliance until the start of the event.
- Before the start of each event, inspect each member of the team to ensure they are correctly dressed.

- ~~Ensure all team members are FULLY DRESSED, including helmets, when they enter the track to place equipment in the appliance prior to the commencement of an event.~~
- Assemble the team on the start line.
- Face the team when addressing them but be in front of and to one side of the team.
- Signal by whistle to the timekeepers to ensure they are ready for the start of the event.
- Bring the team properly to attention and then ask the Team Captain if he is satisfied with the gear.
- After the Marshall has addressed the team and the Team Captain has replied, the Marshall will call “set”, and then start the event by means of some type of audible mechanism.
- Re-address the team in the event of a starting malfunction. (See team requirements)
- Arrange for a team being granted a re-run, to run **again when practicable** ~~after the conclusion of the fifth consecutive team.~~
- See the event is run as near to the programme as possible.
- ~~Use a whistle~~ **Use a long horn blast** to recall a team when a malfunction has occurred. Team reassembles at start mark and will be readdressed.
- Check with the timekeepers after a malfunction has occurred.
- If a team breaks and a malfunction has not occurred, then the team is still in the hands of the Marshall/Starter and will NOT be readdressed.

TIMEKEEPERS

The Chief Timekeeper shall:

- Manage the timing equipment on the designated track.
- Record the team name and completion time on each card.
- Check all watches where used, record all times on the time card and give a run time by averaging the times from each watch.
- Ensure that all stopwatches are checked to the satisfaction of the Technical Panel before the commencement of the challenge. Any time taken during an event that is 0.50 seconds below or above either of the other two watches will not be counted in the average time.
- Where electronic timing is used, record the run time on the card.
- Use a whistle to recall a team following a malfunction.

JUDICIAL COMMITTEE

The Judicial Committee shall:

- Consist of the Chair of the National Challenge Committee or nominated representative and the National Technical Panel.
- Be appointed to hear protests.
- Assemble as soon as practicable to conduct an enquiry into any protest lodged by any team.
- Consider all evidence, including video film, and make a decision as quickly as possible. Such a decision shall be final and no further discussion shall be entered into.

- Have the power to disqualify any team found using disrespectful language or behaviour.
- Ensure that any member of the committee having a pecuniary interest in a team lodging a protest shall retire from the hearing until after a decision has been made.
- Advise the Referee and Field Secretary of the outcome.

EQUIPMENT OFFICER

Equipment Officers shall:

- Be responsible for ensuring all equipment to be used meets specification, is correctly adjusted and maintained.
- Adjust any equipment only when requested by the Referee during the challenge.
- Ensure that there is adequate fuel available for pumps for the duration of the challenge.
- Ensure the security of equipment during any breaks and at the conclusion of the challenge.

FIELD SECRETARY

The Field Secretary shall:

- Manage the secretarial resources.
- Make available a “protest form” to any team on request.
- Ensure they receive all protests and a \$40.00 cash deposit within 15 minutes from the completion of the team’s run as recorded on the time card.
- Call the Judicial Committee together as and when required.
- Return the deposit to the team if their protest is won.
- Retain the deposit for the UFBA’s funds if the protest is lost.
- Sight a medical clearance before reinstatement of any team member following sickness or accident where medical consultation was obtained.
- Ensure an accurate record of the results is posted at frequent intervals during the competition for public viewing.
- Ensure adequate printouts of the results are available at day’s end.
- Prepare a full summary of results including trophies and awards ready for presentation.
- Receive, total and record time cards.

EQUIPMENT

EQUIPMENT GENERAL

- All equipment shall **conform** with the current New Zealand Fire Service standard.
- As the challenge is conducted on grass, Penalty 2 on penalty cards, including throwing equipment, shall be interpreted in a reasonable manner and shall be applied at the discretion of the Referee.

FAULTY EQUIPMENT

- Should the Referee's attention be drawn to any faulty equipment, then the Referee has the power to replace that equipment at their discretion and without protest or re-run from any previous team except the team drawing attention to the faulty equipment.

BRANCHES

- Controlled branches to be used on all events and placed in the appliance locker or attached to flaked hose, in the closed position.
- **Nozzle tips to be 12mm ID.**

BREECHINGS

- When a breeching is used it will be placed in the appliance locker with both valves in the closed position.

COLLECTOR HEAD

- **Collector heads must be the twin head type.**
- Where a collector head is fitted to the pump at the commencement of a run, the twin water inlets shall sit on the horizontal plane.
- **If a blank cap is available, this may be fitted to the collector head at the team captain's request.**

FLAKED HOSE

- Flaked hose is to be flaked neatly from side to side or front to back in the appliance flake locker. This can vary depending on appliance type
- ~~Direction of flaked hose is optional.~~
- No flake is to be tucked behind any other flake.
- All flaked hose in a locker shall be coupled until it is required for use. The last flake in any length of hose may be shortened to allow the coupling to finish on the near side of the tray.
- Hoses must be flaked separately
- If at the commencement of a run the branch is connected to a length of flaked hose, then it ~~may face in or out~~ **must be in the same orientation as the flaked hose. Branch may sit on top of the flaked hose.**

- Where two or more lengths of flaked delivery are used, part of the second length to be behind the centre coupling to allow for advancement when target is broken. Providing ~~that~~ the flake loop is formed prior to the hose being charged in two person events, a penalty will not be applied. Flake loop may be either side of the delivery. ~~Branch may be sitting on top of the flake.~~

HOSE BECKET

- Hose becket must be locked on the hose and connected to the ladder before the order is given.
- In the event of the charging of the hose **dislodges** the becket, a penalty will not apply providing it was originally hooked to the ladder with good intent.
- Hose becket must be stowed in an equipment locker.

HOSE CONDITIONS

- The minimum length of all hose used at UFBA challenges shall be 24 metres.
- Disabled hoses to have knot tied in male end before run completed. Knot to be considered tied when the visible metal of the coupling is clear of the loop. **When forming a knot in a disabled hose**, hands are to be clear of hose before target is broken.
- Charging is defined as water entering the hose.

HOSE ON THE BIGHT

- Hose on the bight shall be placed on the appliance, standing **with the couplings facing outward**.
- The **f**emale coupling must be on the bottom or outside of the coil.
- ~~• The couplings are not to touch and the male coupling shall be longer on the outside loop.~~
- Couplings may be either on top or underneath the bight.
- Hose must be clear of locker before bowling.

HOSE ON THE COIL

- Hose on the coil shall be placed on the appliance, standing **with the coupling facing outward**.
- Couplings may be either on top or underneath the coil.
- Hose on the coil is to be neatly rolled with the female coupling at the centre of the coil.
- Coiled hose must be run off the front underside of the coil.
- When running coiled hose, the hose must be run with both hands on the lugs while moving and run under the arm. Penalty 2 applies.
- Both the member receiving the male coupling for the purpose of coupling to the appliance, and the person running out the coil, must be within the designated 2.5m area at the pump panel.
- All feeder coils must be taken to the hydrant area before being run out.

HOSE REEL

- Hose reel is to be wound up under pressure. Pressure is to be released once stowed
- Hose is to be under arm when striking target.
- Hose reel valve may remain open throughout the run.

KEY AND BAR

- The standpipe and key and bar shall be placed in the standard fire appliance fittings, unlatched.
- Member taking key must take bar.
- Hydrant cover must be opened with bar of hydrant key.

KNOTS

- The line end must be pulled completely through to complete the knot and hands are to be clear of the line before target is broken.
- Line to be tied off only to areas specified by Referee.
- A total of two metres of line will be available to secure the ground monitor.
- No knot is to be pre-formed.

ORDERS

- All orders must be complete and given in a clear and distinct manner.
- **Orders must not overlap.**

PUMP CONDITIONS

- In the event of an air lock, the pump primer may be used to clear without penalty.
- If a pump is fitted with a relief valve, it will be set at 900 kpa.
- ~~If a Low Pressure delivery outlet pressure~~ **the Main Pump Pressure gauge** exceeds 1050 kpa for more than 3 seconds a 20 second penalty will be incurred.
- Prior to the commencement of the events, the Main ~~Low Pump~~ **Pump** Pressure gauge is to be marked with a red line at 1050 kpa.
- The throttle shall be set on idle and all valves in the closed or off position. The blank cap is to be set by the judge to finger tight and the relief valve to be set as above.
- In all appliances, the pump is to remain in volume (parallel) mode where fitted, for all events.
- No valves or throttle to be handled prior to the start of an event by any team member. **Failure to comply may result in a "No Test" for that event.**

PUMP OPERATOR DUTIES

- The pump operator's duties shall include opening the delivery valves, tank to pump valve where required and operating the primer and the throttle. They may assist in the connection of hoses, and removal of hoses from lockers.
- Deliveries may be run from any outlet.
- Primer must be off before any target is struck.
- Where there is an electronic throttle fitted, the idle button can be used.
- **Pump operator must not leave the designated area 2.5m from the centre of the pump panel in any direction whilst delivery valves are open, or pump is not at idle.**

- Appliance pump is not to be accelerated until water reaches inlet or tank to pump valve is open.
- Primer is not to be used until the strainer is in the water and all suction couplings are connected.

RUN CONDITIONS

- The placing of non-permanent markers on hose and the track is allowed.
- An uncompleted event will result in a 'No Test'. The time will be recorded as the slowest time for that event plus 10 seconds.

STANDPIPE

- In all events, the standpipe will be fitted with an unchained blank cap, or integral controlled valve.
- Member shipping standpipe must tighten the standpipe to the hydrant. If standpipe loosens off during run, key and bar person may tighten. The definition of a loose standpipe is half a turn (180 degrees).
- Couplings broken out of standpipe and pump while under pressure must be held.
- The setting of the standpipe prior to the event is to be done by only one team member and a maximum of three times.

SUCTION LINE

- The suction line shall be 11 metres x 14 mm general purpose line and be placed in the appliance locker, coiled.
- On an Iveco appliance, examples of tie off points are the towing eye and the rail of the hose locker. Light masts are not acceptable tie off points.

SUCTION SPANNERS

- ~~Where the use of spanners is stipulated,~~ When using a single spanner, the hole in the spanner jaw must fit completely over the lugs so that the lug is clearly visible when the spanner is applied.
- Where the use of double spanners is stipulated, the holes in the spanner jaws must fit completely over the lugs so that both lugs are simultaneously visible when spanners are applied.
- Suction spanners will be placed in the appliance locker.

SUCTION STRAINER

- Suction hose will be placed in the normally stowed position on the appliance with strainer attached and tight.

SUCTION SUMP

- The area of the suction sump opening for suction events shall be equivalent to 1 metre in diameter.
- In the event of a below ground sump being unavailable, a suitable dam will be provided with approximate dimensions of 1800 mm diameter x 600 mm deep. ~~A water supply to be provided to keep this dam full during runs.~~
- With below ground sumps, no outside assistance will be given to holding the B-Type or Suction lengths. For above ground dams, an official will hold the B-Type or Suction lengths at the same position that it is left in by the competitor.

TRACK CONDITIONS

CENTRE LINE OF TRACK

- The centre line of the track shall be through the centre of the hydrant **or sump where applicable.**

FIRE APPLIANCE

- An appliance with standard hose reel fitted will be positioned 20 metres from the hydrant to the centre of the pump panel and 2 metres to the right of the centre line. The appliance will be positioned so the pump panel is facing the centre line of the track.
- Locker doors in use on appliance shall be open prior to start of run. Equipment and hose lockers shall be stipulated by the Referee.
- Motor shall be started and pump engaged prior to start of run **except in events 27 & 47.**
- Designated Pump Operator Area to be marked by an arc with a 2.5m radius from the centre of the pump panel.

HYDRANTS

- Screw down hydrants to meet ~~NZ Standard specification~~ **NZS/BS 750:1984** will be set to clear the lid with a false spindle fitted and the key fitted behind the standpipe.
- The hydrant cap shall be fitted with a chain, which will be attached to the hydrant.
- There shall be a minimum clearance of 100 mm underground between the hydrant and the hydrant box on all sides to allow the cap to fall.
- The specification of the hydrant box will be to NZ Standard 750:1984, with a wooden cover painted yellow and a slot 30 mm x 20 mm in each end.

PROTECTIVE MATTING

- Protective matting 2.5 metres square will be placed around the hydrant with the hydrant as centre.
- In all events where couplings are to be made and in areas surrounding all pumps, sufficient protective matting should be provided.

TARGETS

- Steel targets, painted bright yellow, shall be hinged at the base with a striking area measuring 350 mm x 250 mm.
- Standards will be made to a height to ensure the top of the target when erect is approximately 3 metres high.
- Target for Extinguisher event will be at a lower level, 1 metre in height.
- The target shall be placed as appropriate for the track and depending on climatic conditions.

- Target placed at one hose length plus 4-6 metres unless otherwise stated.
- All targets must be knocked flat to be completely broken.
- Note: target distances on diagrams are set at 25 metres plus 5 metres.

TOWER

- Tower platform should be between 2 and 3 metres in height.
- The tower MUST be fitted with two 'outriggers' angled from the top of the tower to the ground, on the opposite side of the tower to the ladder to ensure the tower cannot tip over.
- A full safety harness must be used whilst on the tower. Only sternum attachment point to be used.
- Tower lanyard is not to exceed 600mm in length.
- A minimum of a double action karabiner is to be used.
- All tower lanyards / karabiners and other ancillary equipment is to comply with AS/NZS 1891.

WATER PRESSURE

- Suitable water pressure and flow rates shall be available to allow correct operation of all equipment.
- Mains will be charged to a maximum of 600 kpa.

RESULTS AND PRESENTATION

ALLOCATION OF POINTS

- The points for aggregate trophies shall count as follows for the first six places: 12, 10, 8, 6, 4 and 2.
- In the event of an overall winner dead heat, the team with the lowest aggregate time will be the winner.

PRESENTATION OF AWARDS

- The UFBA shall present certificates to the three teams gaining the highest aggregate points in the Four and Two Person events. Teams gaining points down to sixth place in every event will receive certificates by post.
- Gold Medals or Bars will be presented to the winning team for EVENTS No 41 to 49 inclusive, and Gold Medals or Bars will be presented to the winning team for EVENTS No 21 to **28 inclusive**. ~~26 inclusive, and Event No 28.~~
- To be eligible for medals, each team member has to run in at least one event.

PHOTOS



Delivery with loop back to allow for advancement.



Ground monitor with deliveries correctly run and lashed to intake pipe using a round turn and 2 half hitches.

Hoses must lie across legs of monitor, **with the line tight** and be tied so as to be held in place. Hoses can go either under or over.



Harness to be fastened and clipped to the appropriate place on the tower. **Only sternum attachment point to be used.** Tower lanyard is not to exceed 600mm in length. A minimum of a double action karabiner is to be used.





**Figure 7 Low Pressure Delivery
Aloft by means of a Ladder:
Source NZFS 2006**



'B' Type ejector pump



Correct use of spanners



Hose and Equipment may be stored in the same locker, providing it is stored in separate compartments within that locker.

Note: Breathing Apparatus Sets and Hose Reel lockers are not to be used at any time for storage of hose or equipment during waterway challenge runs.



EVENT No 41:

REPLACE BURST LENGTH (4 competitors – allotted duties draw for place)

An appliance with standpipe, key and bar stowed, flaked feeder consisting of 1 x 70mm hose stowed in flake locker.

Delivery consisting of 2 x coiled 70 mm hose and 1 x coiled 45 mm hose stowed in hose locker. 1 x controlled branch stowed in equipment locker.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open. The tank to pump valve must remain closed during the event. Teams to commence the event from the start line 2m to the front of the appliance. Hose must be clear of the locker before charging feeders or deliveries.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open and/or pump is not at idle.

No 1 takes coiled 70mm hose, plugs into delivery outlet, establishes delivery to 1st target, plugs in branch, **then** gives order for water on delivery. After 1st target is broken, calls for water off delivery, **then** breaks out branch, becomes branch operator on extension, **connects branch then** gives order for 'water on delivery', hits 2nd target. After burst length is replaced, hits 2nd target again.

No 2 takes flaked feeder & plugs in at pump. **Orders water on feeder after feeder is connected to pump.** May open feeder inlet valve if fitted, takes feeder to standpipe, **and** plugs in **after hydrant is flushed.** Becomes assistant branch operator at target 1. Assists No 1 and **After 1st target is**

broken, takes hose from No 4 and connects to make extension. Returns to pump and **after** 2nd target is broken, takes replacement 70mm coiled hose **and** gives male **coupling** to pump operator, replaces burst length and connects couplings, then orders water on delivery.

No 3 takes standpipe, **gives repeats** order for 'water on feeder' **from No 2 and sinks standpipe fully down,** goes to pump, repeats order for 'water on delivery', may open feeder inlet valve (if fitted), **then** turns on delivery. Repeats **order** 'water off delivery' from No 1, **then** turns off delivery. Repeats **order** 'water on delivery' from No 4, **then** turns on water to extension, repeats **order** 'water off delivery' from No 4, **then** turns off delivery. Replaces delivery, ties knot in disabled length **before target is broken,** repeats **order** 'water on delivery' from No 2, **then** turns water back on to delivery.

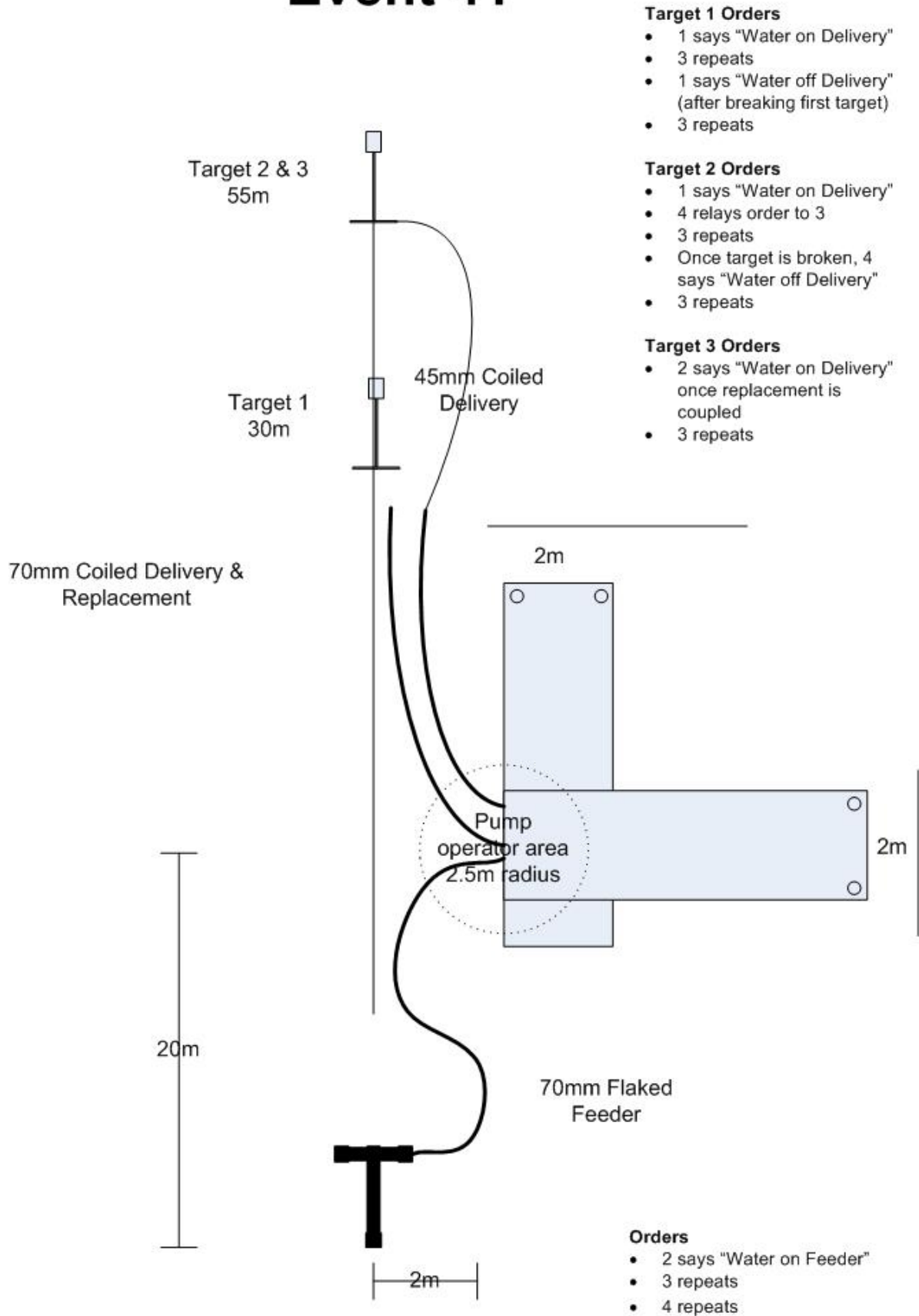
No 4 takes key and bar, **repeats water on feeder from No 3,** clears hydrant, flushes standpipe, **repeats water on feeder from No 3,** turns water on feeder. Returns to appliance and once 1st target is broken, takes 45mm extension and extends delivery. Relays water on delivery from No 1 to No 3. Calls for water off delivery once 2nd target is broken. Breaks out middle coupling ready to replace length.

Note: orders must be completed by pump operator before pump delivery valves are operated. ~~Orders may overlap. However, the onus is on teams to give 'clear and concise orders' to remove any ambiguity and confusion if they choose to overlap.~~ **Orders must not overlap.**

PENALTIES – EVENT No 41

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
9	Opening the tank to pump valve at any time during the event.	10
11	No assistant branch person when water shown. No assistant branch person when target broken.	5
13	Not carrying out allotted duties including clear and concise orders.	5 each breach
14	Not tying correctly stipulated knots	5 each breach
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
20	Handling additional equipment before required.	10 each breach
21	Charged hose in locker	10
22	Exceeding 1050 kpa main pump pressure	20

Event 41



Drawings are NOT TO SCALE

EVENT No 42:

HOSE REEL AND FLAKED DELIVERY (4 competitors)

An appliance with standpipe, key and bar stowed, flaked feeder consisting of 1 x length 70 mm hose stowed in flake locker.

Flaked delivery consisting of 1 x length 70 mm hose and 1 x length of 45 mm hose with controlled branch all pre-connected and stowed in flake locker. Hose must be clear of the locker before charging feeders or deliveries.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle**.

The tank to pump valve must be closed immediately after first target has been broken.

Flaked delivery can be connected to any outlet.

Team to commence the event from the start line 2 metres to the front of the appliance.

Team will get to work using tank supply, one member running hose reel out and striking the first target.

Standpipe, key and bar are taken and standpipe is to be fully screwed down and flushed before connecting feeder. Feeder is run to pump and water is turned on. Flaked delivery is to be run out as per diagram once first target has been struck and tank to pump valve closed.

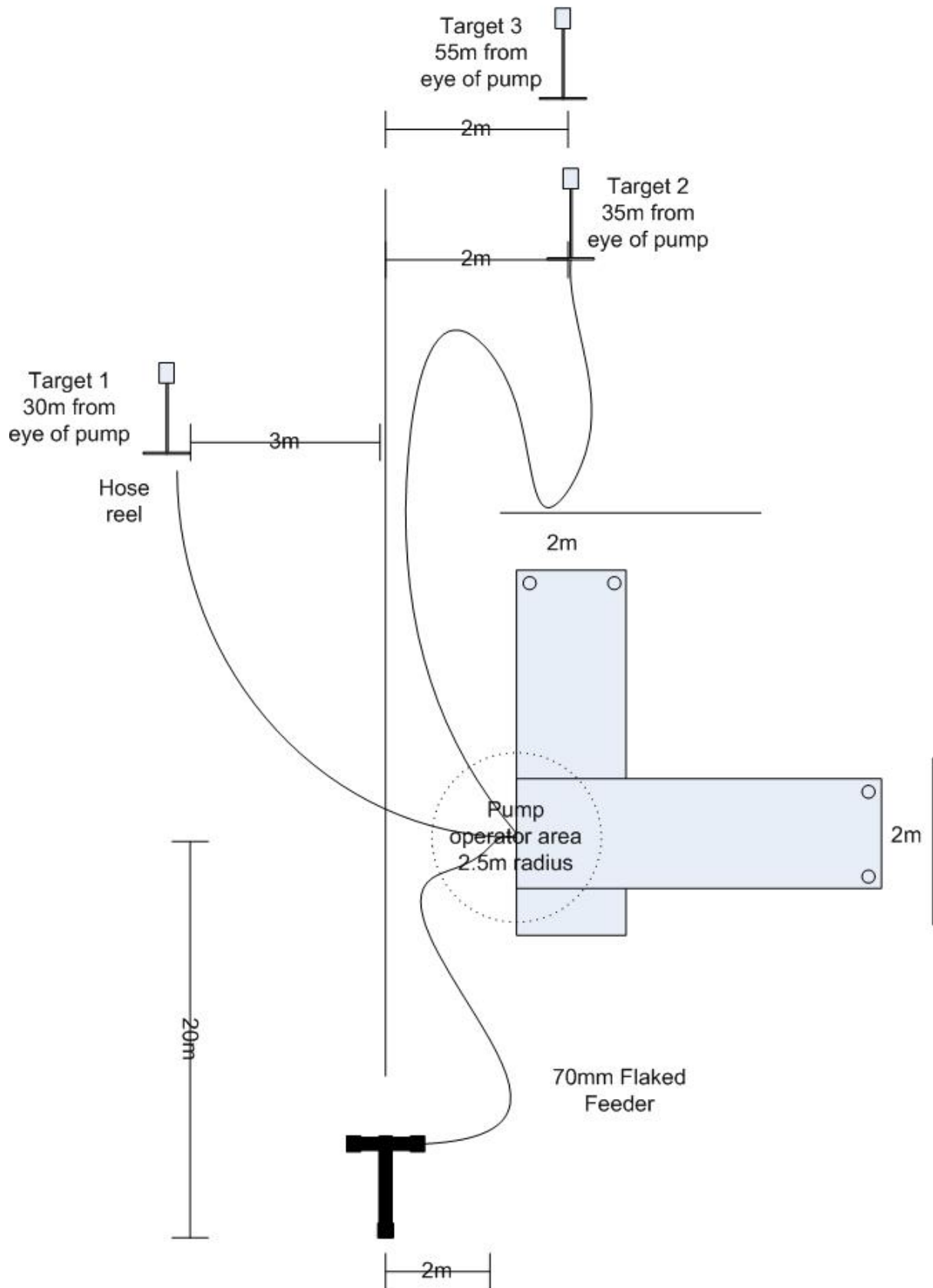
Second target to be broken with no hose to be in front of or past the second target. The delivery is then advanced to shoot 55 metre third target. Third target broken ending run. The flaked loop can be either side of the delivery.

Note: Hose reel valve may remain open throughout the run.

PENALTIES – EVENT No 42

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
3	Failure to close tank to pump valve as prescribed.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle .	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
20	Handling additional equipment before required	10 each breach
21	Charging hose before clear of locker.	10
22	Exceeding 1050 kpa main pump pressure	20

Event 42



Drawings are NOT TO SCALE

EVENT No 43: EXTINGUISHER AND DELIVERY (4 competitors)

An appliance with standpipe, key and bar stowed, flaked feeder consisting of 1 x length 70 mm hose stowed in flake locker.

Flaked delivery consisting of 1 x length 70 mm hose and 1 x length of 45 mm hose with controlled branch all pre-connected and stowed in flake locker. 1 x length 45 mm bight hose stowed in hose locker. 1 x portable extinguisher stowed in equipment locker as size of locker dictates.

Hose must be clear of the locker before charging feeders or deliveries.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle**. The tank to pump valve must remain closed during the event.

Team to commence the event from the start line 2 metres to the front of the appliance.

Team will get to work with one member taking extinguisher and striking first target with nozzle of extinguisher. Extinguisher must be left standing upright after target has been struck. **The member taking the extinguisher may not handle, or assist with, any additional hose or equipment until extinguisher duties are complete.**

Standpipe, key and bar are taken, clear hydrant. Standpipe to be fully screwed down and flushed before connecting feeder, feeder is connected to pump, water is turned on, flaked delivery is run out once 1st target is struck as specified and the second target broken.

Branch is broken out and 45 mm hose replaced using 45 mm bight hose and third target broken ending run.

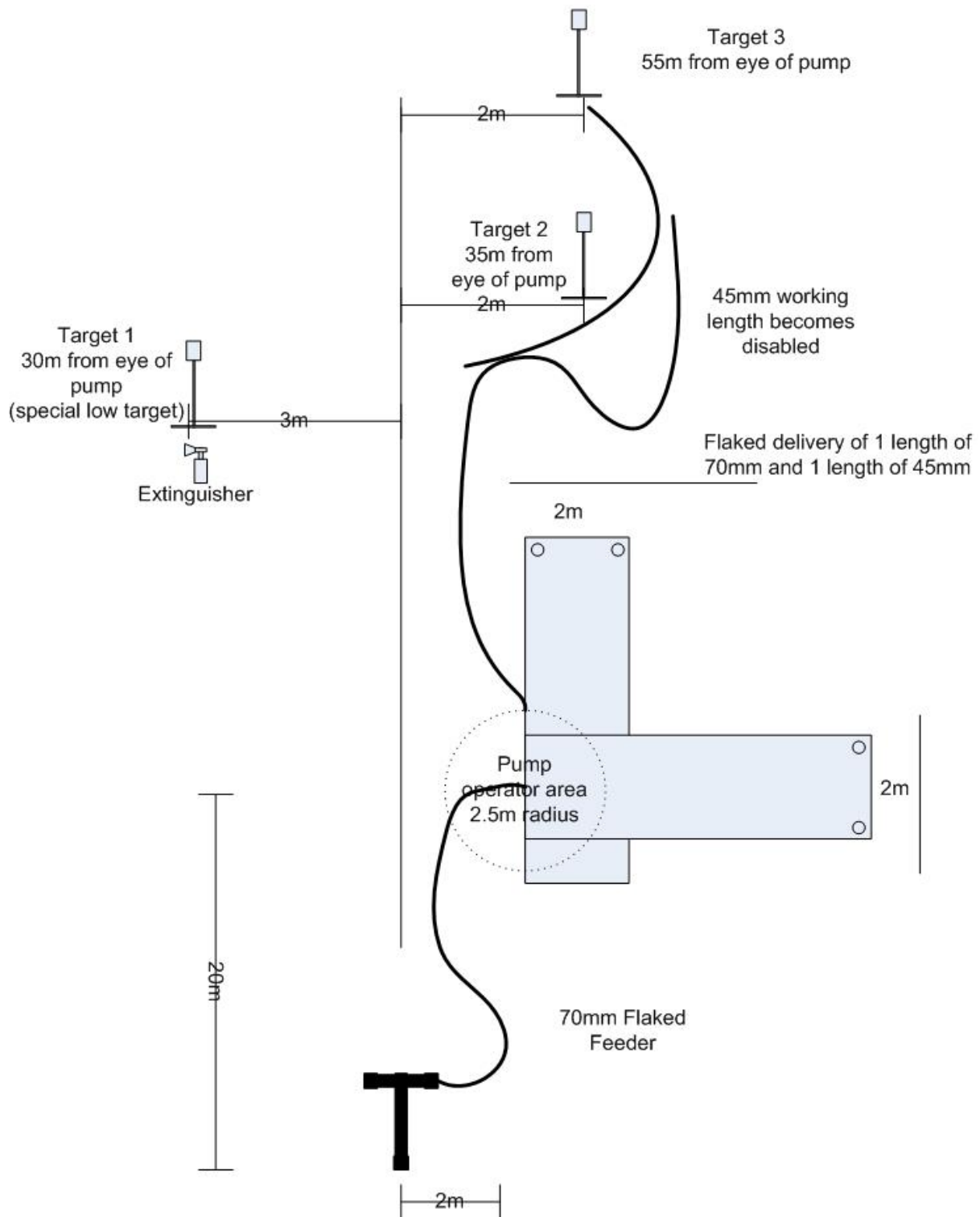
The flaked loop can be either side of the delivery.

NOTE: The replacement bight hose cannot be touched until second target is broken. Knot must be tied in disabled delivery.

PENALTIES – EVENT No 43

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle .	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
8	Extinguisher not left in a stable upright position, prior to leaving target.	5
9	Opening the tank to pump valve at any time during the event.	10
14	Not tying stipulated knots	5 each breach
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
20	Handling additional equipment before required	10
21	Charging hose before clear of locker.	10
22	Exceeding 1050 kpa main pump pressure	20

Event 43



Drawings are NOT TO SCALE

EVENT No 44:

APPLIANCE WITH SUCTION (4 competitors)

An appliance with 2 x lengths of suction hose correctly stowed, strainer attached. 1 x length of 70 mm coiled hose stowed in hose locker. 1 x length of 70 mm bight hose stowed in hose locker.

1 x controlled branch, suction line and 2 x suction spanners stowed in equipment locker.

The delivery can be connected to any outlet.

A sump or portable dam will be located as per measurements on drawings.

Team to commence the event from the start line 2 metres to the front of the appliance.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open and/or pump is not at idle.

Suction line to be fastened with clove hitch to incorporate ~~or touch any part of~~ the strainer, and the other end attached to the appliance with a round turn and two half hitches. ~~Spanners to be correctly applied to suction.~~ **Centre coupling to be**

double-spannered. Pump coupling to be single-spannered.

Pump operator not to use primer until strainer is in water and all suction couplings connected. Pump operator not to accelerate pump until pressure is shown on the main pressure gauge.

Delivery to be established and assistant branch operator to be within 1 metre of branch operator when water shown and 1st target broken. Replacement delivery established and 1st target struck again. Assistant branch operator to be within 1 metre of branch operator when water shown and second target struck ending run.

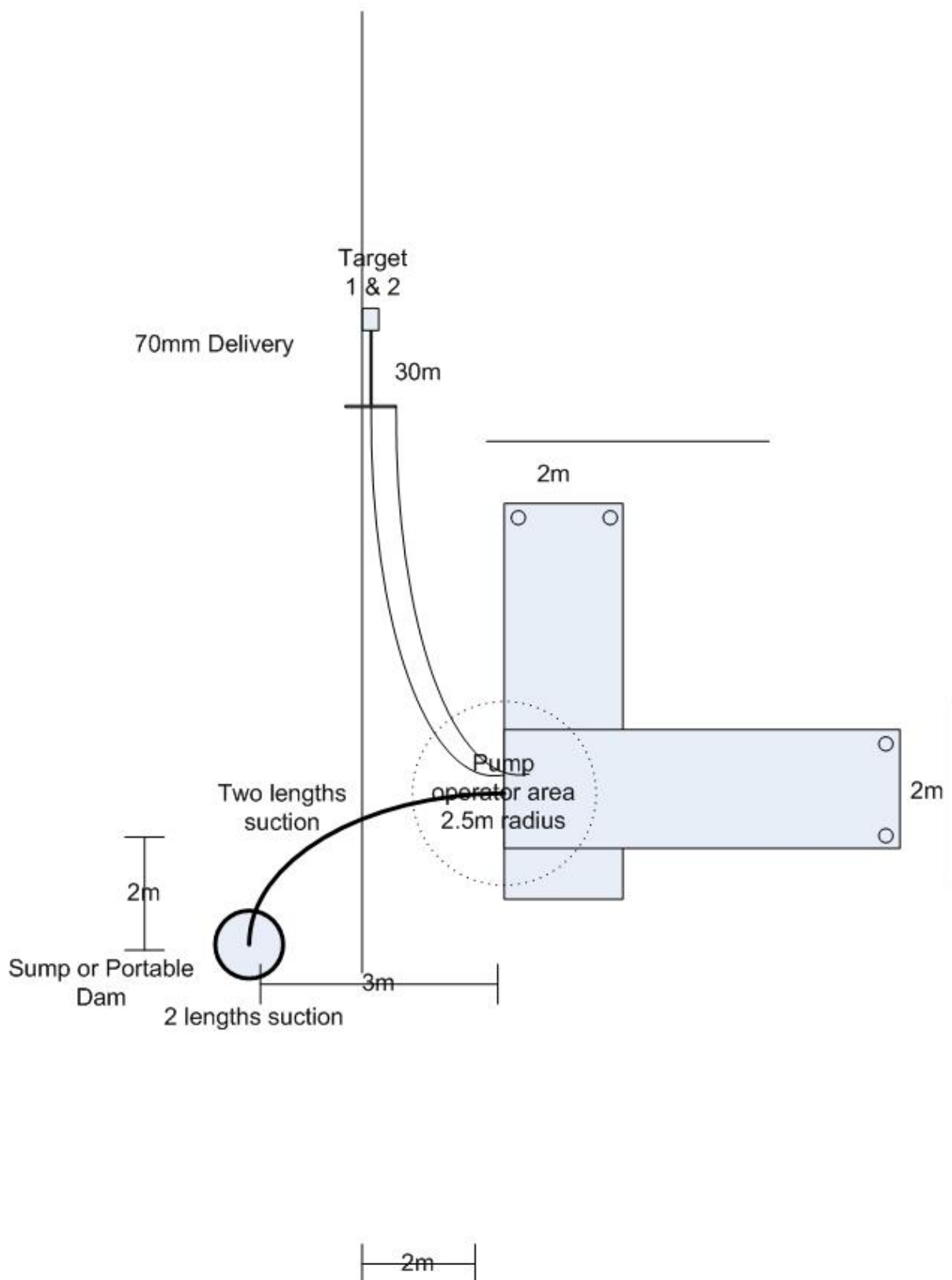
At conclusion of event a Judge will lift the suction lengths from the sump by the line for examination by the Judges and may be assisted by the pump operator. No team member may touch line at this stage.

NOTE: Hose can be used in any order. Knot to be tied in disabled delivery.

PENALTIES – EVENT No 44

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
9	Opening the tank to pump valve at any time during the event.	10
10	Tightening any equipment or disconnecting couplings after last target is broken or couplings not made when last target is broken.	10
11	No assistant branch person when water shown. No assistant branch person when target broken.	5
12	Not using applying spanners correctly.	5 each breach
14	Not tying correctly stipulated knots.	5 each breach
20	Handling additional equipment before required	10 each breach
22	Exceeding 1050 kpa main pump pressure	20
23	Primer not to be used until strainer is in the water and all suction couplings connected. Appliance pump not to be accelerated until the pump gauge indicates pressure.	10 each breach

Event 44



Drawings are NOT TO SCALE

EVENT No 45: TOWER AND GROUND DELIVERIES (4 competitors)

An appliance with standpipe, key and bar stowed, coiled feeder consisting of 1 x 70 mm coiled hose stowed in hose locker. 1 x 70 mm hose as replacement feeder on bight stowed in hose locker.

Delivery consisting of 1 x flaked 45 mm hose with controlled branch attached stowed in flake locker and 1 x 70 mm coiled hose stowed in hose locker. 1 x controlled branch and 1 x hose becket stowed in equipment locker. 1 x safety harness for branch operator going aloft.

Hose must be clear of the locker before charging feeders or deliveries.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle.**

. The tank to pump valve must remain closed during the event.

Team to commence the event from the start line 2 metres to the front of the appliance. Ladder to be climbed using manner prescribed in photos at the beginning of rules.

Standpipe, key and bar is taken, clear hydrant.

Standpipe to be fully screwed down and flushed before connecting coiled feeder. Feeder is to be connected to pump,

water can be turned on at any time. 45 mm delivery is run out and connected to pump, branch operator climbs ladder on to platform. After both feet are on the platform, attaches hose with hose becket to ladder on a round above platform level, attaches safety harness and has branch in hand prior to giving order "Water on delivery".

Order is repeated by pump operator prior to opening delivery valve and tower target is broken.

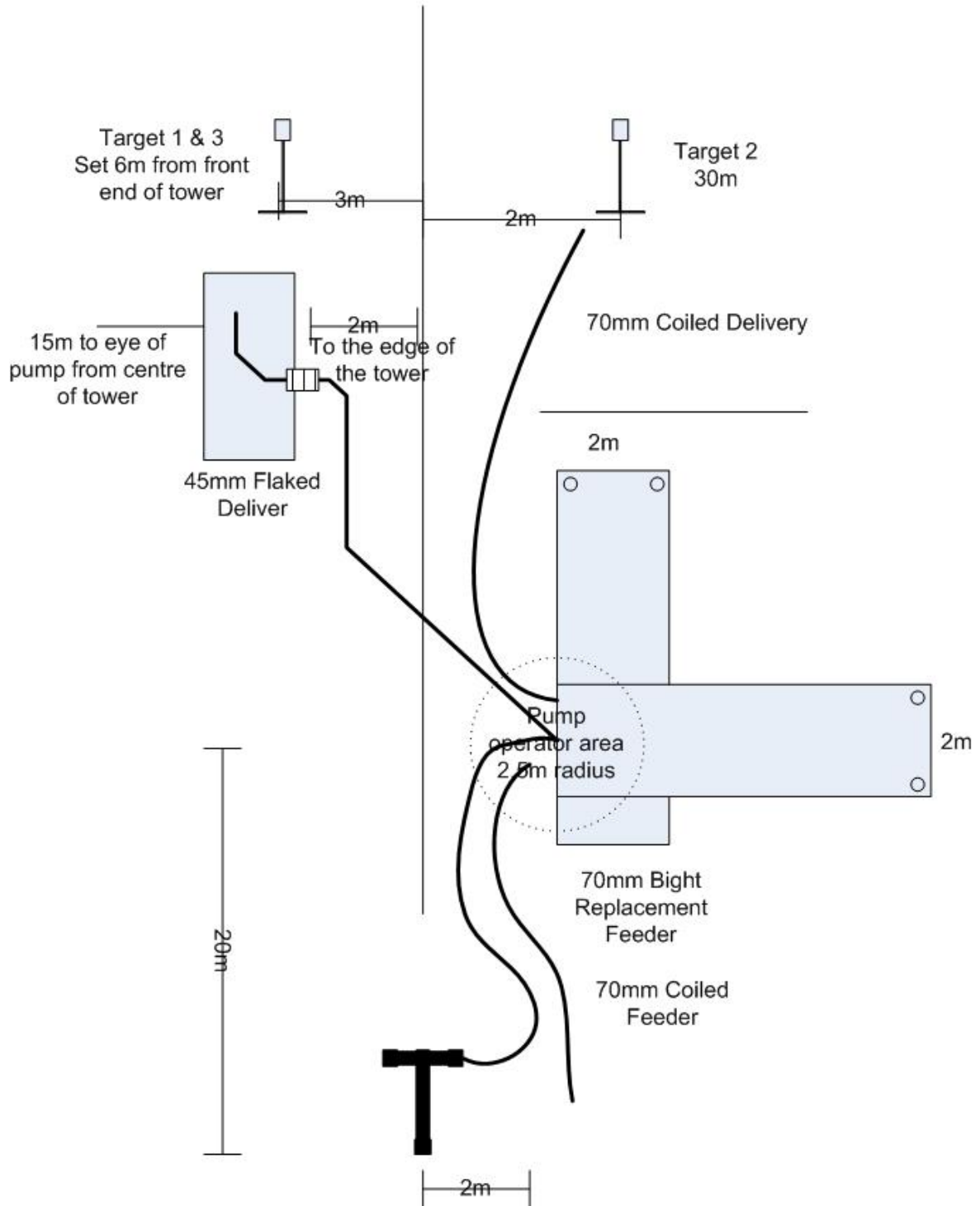
Coiled delivery is run out and ground target broken. Assistant branch operator to be within 1 metre of branch operator when water shown and target broken. Once both targets are broken, the replacement feeder is to be established, a knot tied in the disabled length and the tower target struck again ending run.

NOTE: Ground target and tower target may be struck in any order. Harnesses to be fitted before the commencement of the run. Tower branch is to remain open after target 1 is struck. ~~Orders may overlap. However, the onus is on teams to give 'clear and concise orders' to remove any ambiguity and confusion if they choose to overlap.~~ Ground branch is to be in the closed position if left unattended. **Orders must not overlap.**

PENALTIES – EVENT No 45

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
6	Not attaching hose becket or harness correctly or branch not in hand prior to giving order "Water on".	5 each breach
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
9	Opening the tank to pump valve at any time during the event.	10
11	No assistant branch person when water shown. No assistant branch person when target broken.	5
13	Not carrying out allotted duties including clear and concise orders.	5 each breach
14	Not tying correctly stipulated knots	5 each breach
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
18	Stepping off the ladder from below the platform.	10
20	Handling additional equipment before required	10 each breach
21	Charging hose before clear of locker	10
22	Exceeding 1050 kpa main pump pressure	20

Event 45



Drawings are NOT TO SCALE

EVENT No 46: APPLIANCE WITH EJECTOR PUMP (4 competitors)

An appliance with 2 x lengths of 70 mm coiled hose and 2 x lengths 45 mm coiled hose stowed in hose locker.

1 x controlled branch and 'B' Type ejector pump stowed in equipment locker.

The deliveries can be connected to any outlet.

A portable dam or sump will be located as per measurements on drawings.

Target delivery valve must not be opened before return water from ejector pump has reached the eye of the main pump.

Team to commence the event from the start line 2 metres to the front of the appliance. **The pump operator to be within the 2.5 metre designated area whenever delivery valves are open and/or pump is not at idle.**

Ejector pump to be set up into water supply with 1 x coiled 70 mm hose from pump outlet

and 1 x 70 mm coiled hose as return to pump collector head inlet. ~~Note the ejector pump is to be set up and water is to be supplied to the collector head inlet from the B-type ejector within 25 seconds from the start of the run, or penalty seconds will be added to the run time at the rate of 1 second for every second longer than 25 seconds.~~

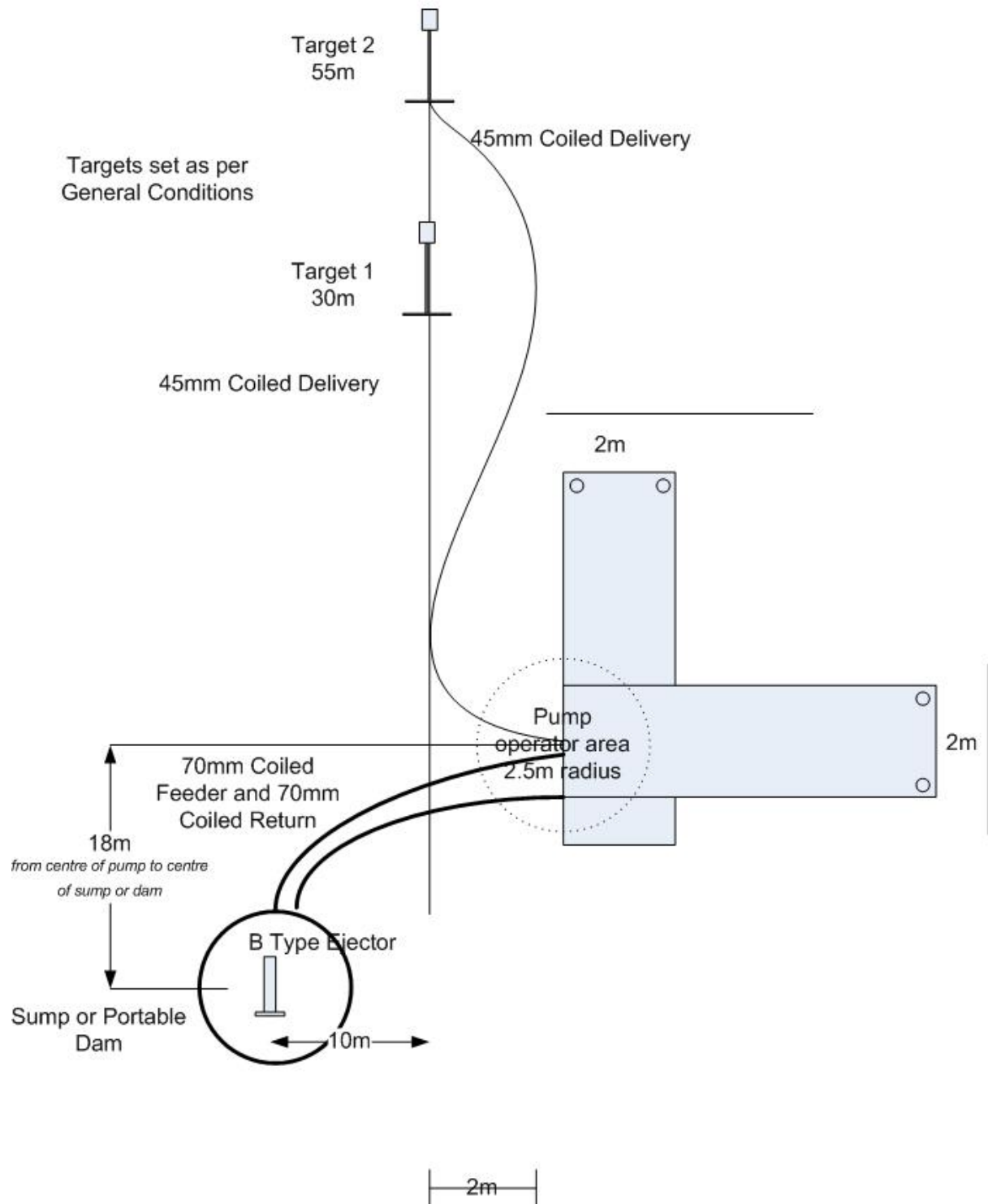
Delivery of 1 x 45 mm coiled hose to be run out and 1st target struck. **Tank to pump valve must now be closed.** The delivery is to then be extended using 1 x 45 mm length and the 2nd target struck **using water supply from the 'B' Type**, ending run.

Tank to pump valve must be closed, and remain closed before opening delivery to second target. If pressure is lost, delivery valve must be re-closed before opening tank to pump valve again.

PENALTIES – EVENT No 46

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
15	Not having return water to inlet collector from B-type within stipulated time.	1 second for every second over stipulated time
15	Having extension delivery (46) / replacement delivery (26) valve open concurrently with tank to pump valve	30
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
19	Opening target delivery valve before return water from ejector pump has entered eye of main pump. Not opening pump inlet valve fully, before and while delivery valve is opened.	20 each breach
22	Exceeding 1050 kpa main pump pressure	20

Event 46



Drawings are NOT TO SCALE

EVENT No 47:

APPLIANCE WITH PORTABLE PUMP (4 competitors)

An appliance with 2 x lengths of suction hose correctly stowed strainer attached. 1 x length of 70 mm coiled hose and 2 x lengths of 45 mm coiled hose stowed in hose locker.

2 x controlled branches, suction line and 2 x suction spanners stowed in equipment locker.

The deliveries can be connected to any outlet.

Portable pump on stand with blank cap fitted. The main pump is to be disengaged.

A portable dam or sump will be located as per measurements on drawings.

Team to commence the event from the start line 2 metres to the front of the appliance.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open and/or pump is not at idle.

Both suction lengths to be removed from appliance before making couplings.

Suction line to be fastened with clove hitch to incorporate the strainer and the other end attached to the pump stand or pump with a round turn and two half hitches.

Spanners to be correctly applied to suction.

Portable pump operator not to use accelerator or primer until strainer is in water and all suction couplings connected.

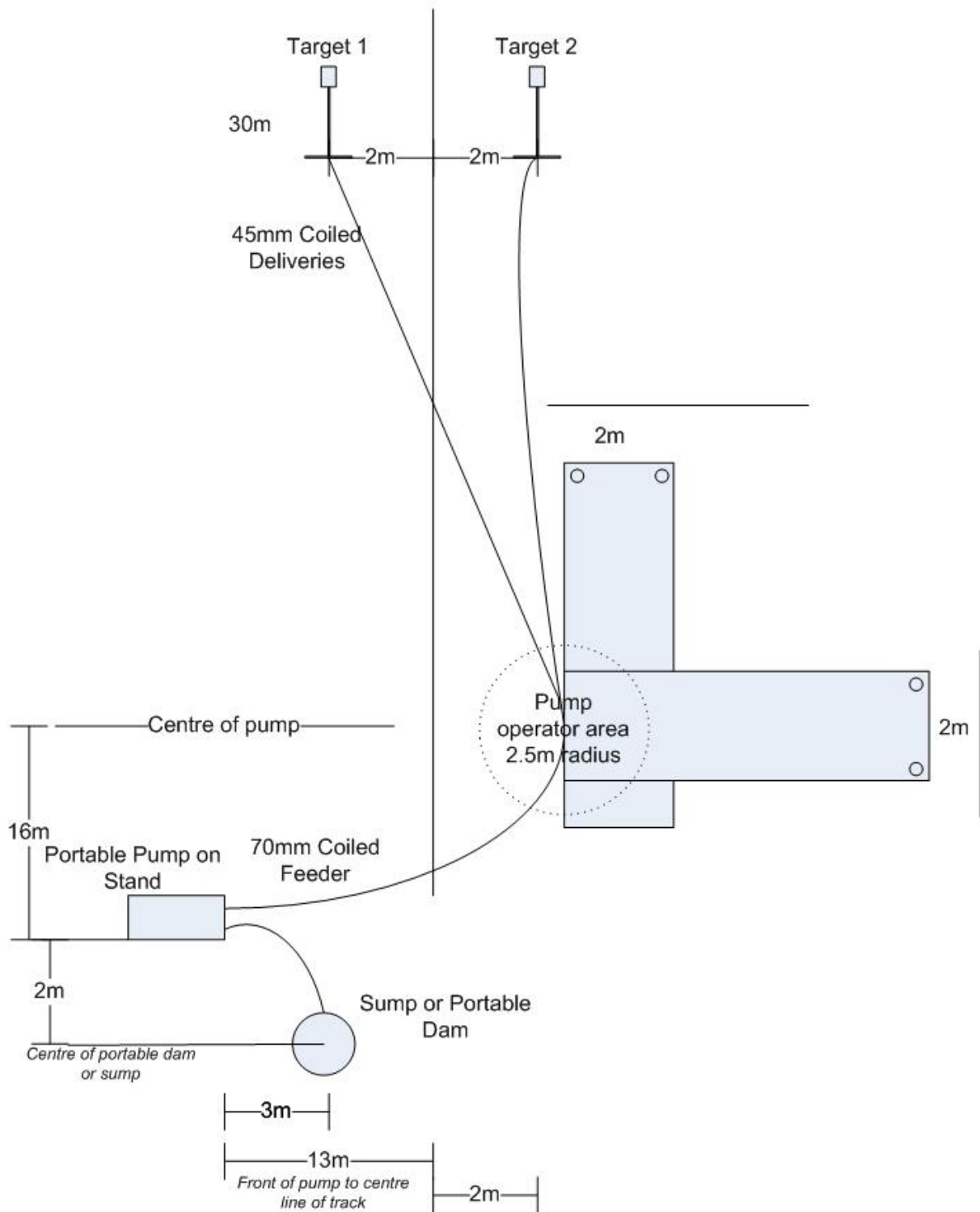
1 X 70mm feeder to be run to pump and 2 x 45mm deliveries to be run out and targets broken ending run. Targets can be broken in any order.

At conclusion of event a Judge will lift the suction lengths from the water by the line for examination by the Judges and may be assisted by the portable pump operator. No other team member may touch the line at this stage.

PENALTIES – EVENT No 47

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
9	Opening the tank to pump valve at any time during the event.	10
10	Tightening any equipment or disconnecting couplings after last target is broken or couplings not made when last target is broken.	10
12	Not using applying spanners correctly.	5 each breach
14	Not tying correctly stipulated knots.	5 each breach
22	Exceeding 1050 kpa main pump pressure	20
23	Primer not to be used until strainer is in the water and all suction couplings connected.	10 each breach

Event 47



Drawings are NOT TO SCALE

EVENT No 48:

GROUND MONITOR – TWIN FEEDERS (4 competitors)

An appliance with standpipe, key and bar stowed, flaked feeder consisting of 2 x lengths of 70 mm hose stowed in hose locker.

Delivery consisting of 2 x lengths of coiled 70 mm hose stowed in hose locker. Hose must be clear of the locker before charging feeders or deliveries.

Ground monitor with dual head collecting breeching and lashing lines fitted and setup on track. Monitor aimed towards target and set horizontal at start of event.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle**.

The tank to pump valve must remain closed during the event.

Team to commence the event from the start line 2 metres to the front of the appliance.

Standpipe, key and bar is taken, clear hydrant. Standpipe to be fully screwed down and flushed before connecting feeder(s). Feeder(s) are connected to pump, water is turned on.

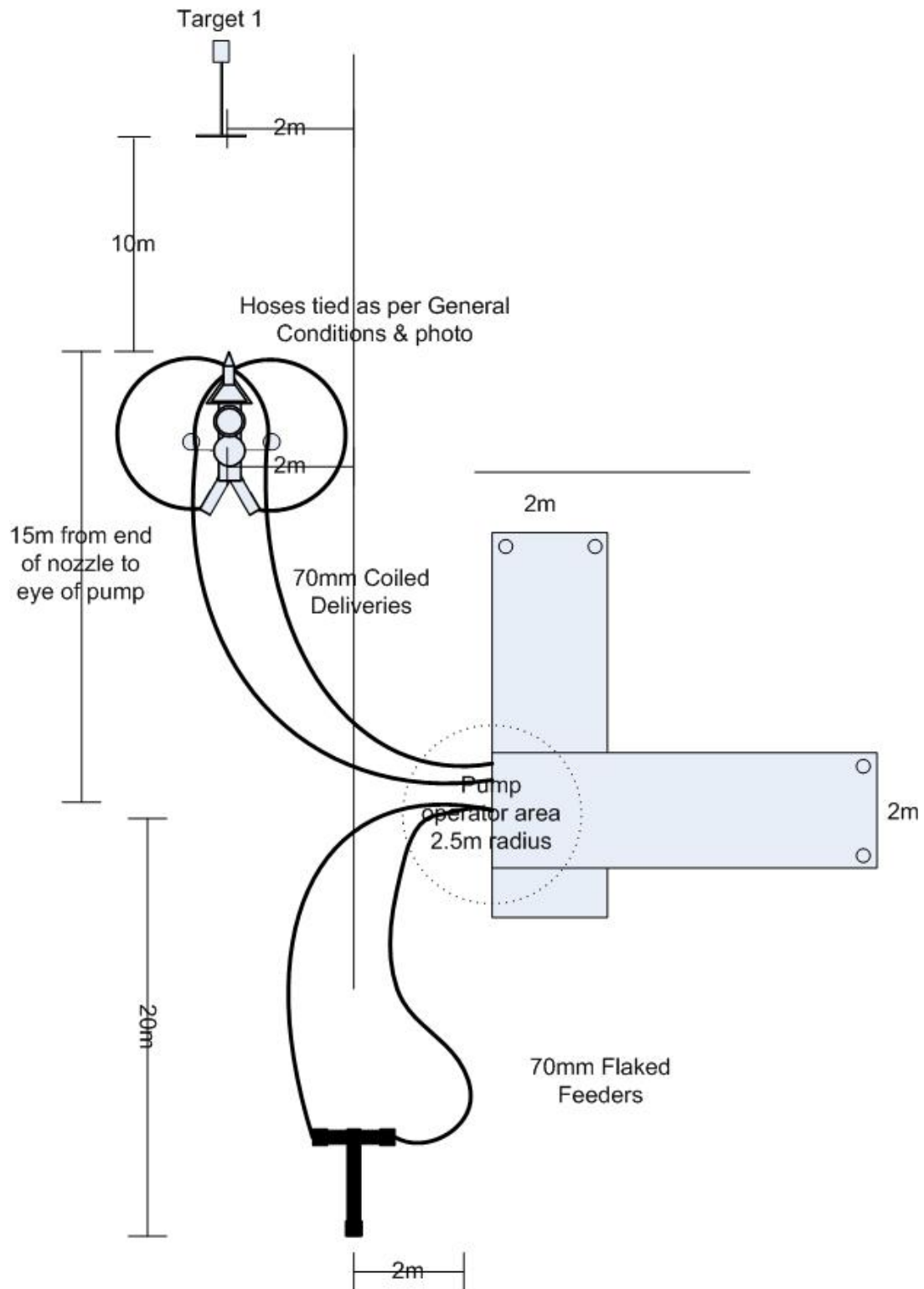
2 x 70 mm delivery hoses to be run out and connected to ground monitor as specified, including tying both deliveries individually with a round turn and two half hitches so that they are held in place across the legs of the monitor. Branch person to operate monitor to break target, ending run. Open hand can be used to direct the nozzle left or right. Monitor elevation, up or down, can only be adjusted using the winding mechanism.

Note the lines must **be tight and** hold the deliveries over the legs or plate. Penalty 17 applies.

PENALTIES – EVENT No 48

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle .	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
9	Opening the tank to pump valve at any time during the event.	10
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
17	Not running deliveries correctly, including tying stipulated knots.	5 each breach
21	Charging hose before clear of locker.	10
22	Exceeding 1050 kpa main pump pressure	20

Event 48



Drawings are NOT TO SCALE

EVENT No 49: HOSE AND BREECHING (4 competitors)

An appliance with standpipe, key and bar stowed, flaked feeder consisting of 1 x length 70 mm hose stowed in hose locker. Coiled deliveries consisting of 2 x lengths of 70 mm and 2 x lengths of 45 mm hose stowed in hose locker. 2 x controlled branches and 1 x controlled dividing breeching with valves fully closed stowed in equipment locker.

Hose must be clear of the locker before charging feeders or deliveries.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle.**

The tank to pump valve must remain closed during the event.

The deliveries can be connected to any outlet.

Team to commence the event from the start line 2 metres to the front of the appliance.

Standpipe, key and bar is taken, clear hydrant.

Standpipe to be fully screwed down and flushed before connecting feeder(s). Feeder is connected to pump, water is turned on.

Run out 1 x length of 70 mm delivery and strike first target. An assistant branch person to be within 1 metre of branch person when water shown and first target broken.

Branch from first delivery to be broken out and used for a subsequent delivery. Note no other equipment for the second delivery can be handled until the first target is broken.

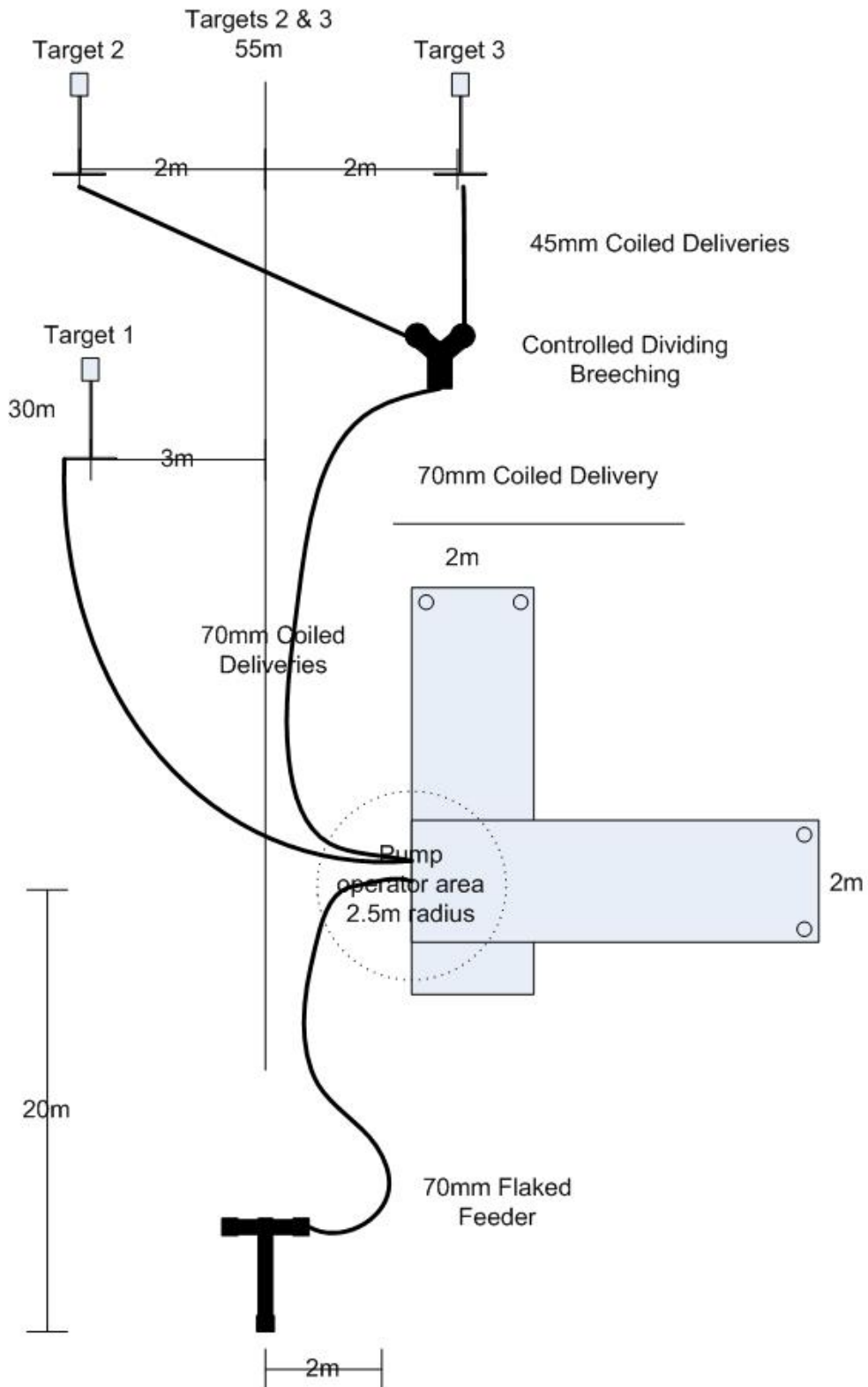
Second delivery comprising 1 x coiled 70 mm, controlled dividing breeching and 2 x 45 mm coiled deliveries will be run out and the second target is to be struck before water is turned on for the third target to be struck ending the run.

Once water has reached collecting breeching all delivery control must be maintained at the breeching. The pump operator cannot close down the breeching delivery in order to relieve pressure. Penalty 1 will apply.

PENALTIES – EVENT No 49

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
9	Opening the tank to pump valve at any time during the event.	10
11	No assistant branch person when water shown. No assistant branch person when target broken.	5
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
20	Handling additional equipment before required	10 each breach
21	Charging hose before clear of locker.	10
22	Exceeding 1050 kpa main pump pressure	20

Event 49



Drawings are NOT TO SCALE

EVENT No 21: REPLACE BURST LENGTH (2 competitors - allotted duties draw for place)

An appliance with standpipe, key and bar stowed, bight feeder consisting of 1 x length 70 mm hose stowed in hose locker.

Delivery consisting of 2 x lengths coiled 45 mm hose stowed in hose locker.

1 x controlled branch stowed in equipment locker.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle.**

The tank to pump valve must remain closed during the event.

Team to commence the event from the start line 2 metres to the front of the appliance.

No 1 runs feeder to pump, gives order 'Water on feeder' **after feeder is connected to the pump.** Runs 1st delivery from pump, ~~makes controlled~~ **plugs in** branch and **then** gives order 'Water on delivery' before striking 1st target. ~~then~~ **After 1st target is struck,** orders 'Water off Delivery', breaks out branch returns to pump and becomes pump operator.

Repeats order 'Water on Delivery' before **turning on delivery to strike** 2nd target ~~is struck.~~

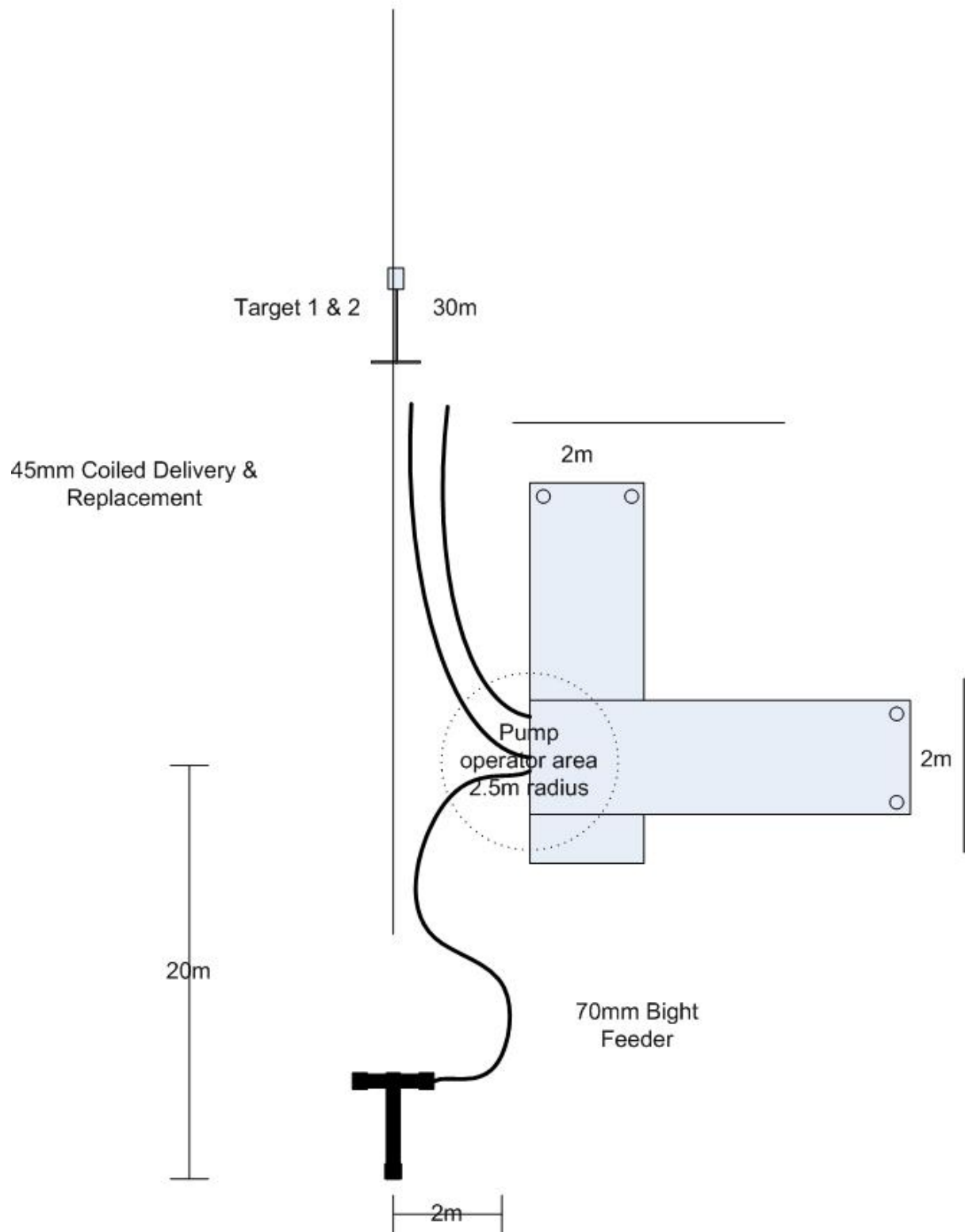
No 2 ~~runs~~ **takes** standpipe, key and bar, **repeats order 'water on feeder' anytime after No 1,** clears hydrant, **sinks standpipe fully down,** flushes standpipe, ~~repeats order Water on feeder~~ and becomes pump operator. Repeats order 'Water on Delivery' ~~before turning on delivery, shuts off delivery once 1st target has been struck and~~ **then turns on water to 1st target. After target is struck,** repeats order 'Water off Delivery', **then turns off delivery,** breaks out delivery **from pump** and ties knot in it, takes replacement hose and runs out **to target, making controlled** **connects** branch before giving order **for** 'Water on Delivery'. Strikes 2nd target, ending run.

Note all orders must be completed by pump operator before pump valves are operated. ~~Orders may overlap. However, the onus is on teams to give 'clear and concise orders' to remove any ambiguity and confusion if they choose to overlap.~~ **Orders must not overlap.**

PENALTIES – EVENT No 21

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
9	Opening the tank to pump valve at any time during the event.	10
13	Not carrying out allotted duties including clear and concise orders.	5 each breach
14	Not tying correctly stipulated knots.	5 each breach
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
22	Exceeding 1050 kpa main pump pressure	20

Event 21



Drawings are NOT TO SCALE

EVENT No 22: HOSE REEL AND FLAKED DELIVERY (2 competitors)

An appliance with standpipe, key and bar stowed, flaked feeder consisting of 1 x length 70 mm hose stowed in flake locker. Flaked delivery consisting of 1 x length 45 mm hose with controlled branch pre-connected and stowed in flake locker.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle**.

Hose must be clear of the locker before charging feeders or deliveries.

The tank to pump valve must ~~remain~~ **be** closed **immediately** after first target has been broken.

Flaked delivery can be connected to any outlet.

Team to commence the event from the start line 2 metres to the front of the appliance.

Team will get to work using tank supply, one member running hose reel out and striking the first target.

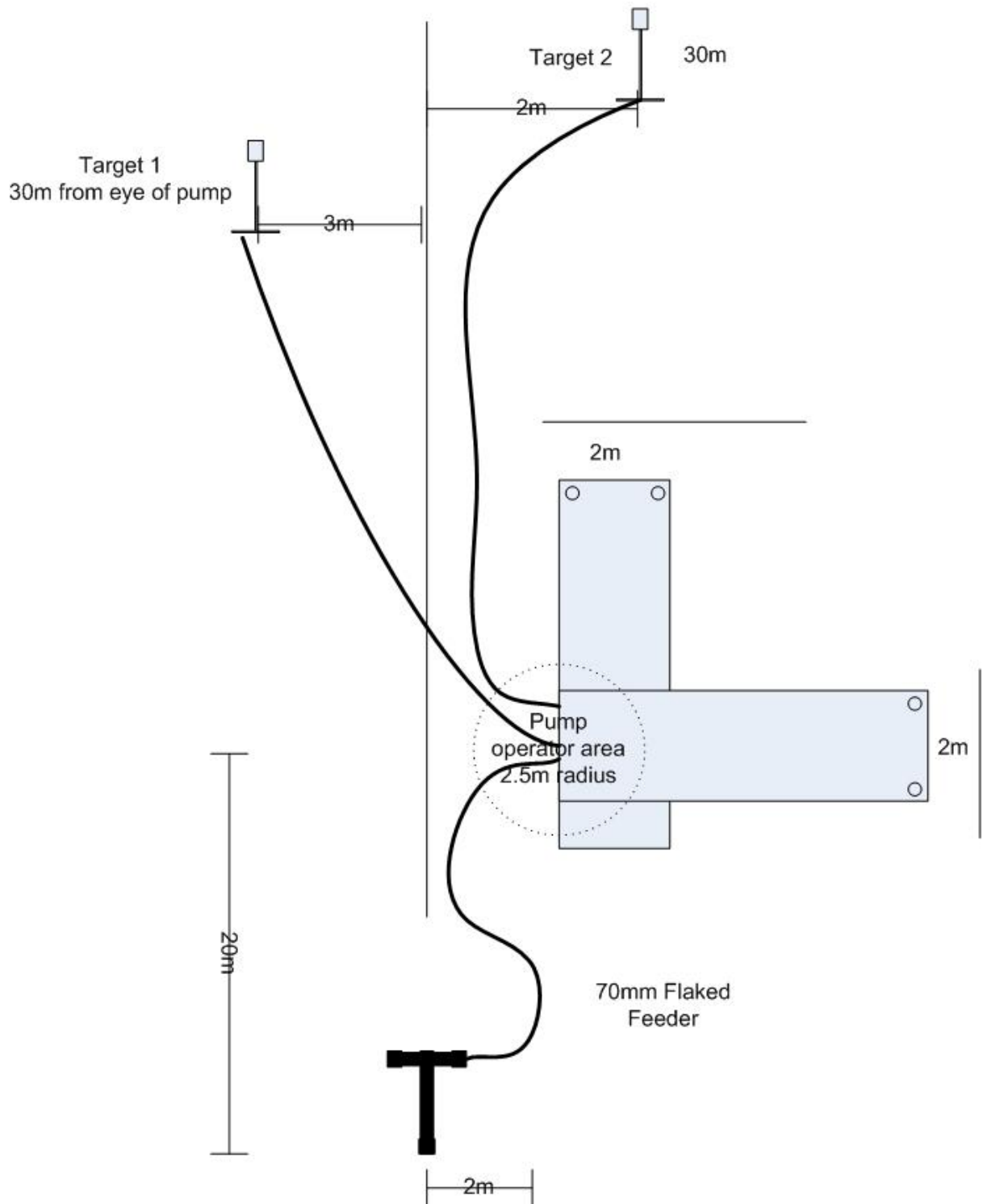
Then standpipe, key and bar are taken and standpipe is to be fully screwed down and flushed before connecting feeder. Feeder is run to pump and water is turned on. 1 x 45 mm flaked delivery is run out, after 1st target is struck and tank valve closed, and second target broken ending run.

Note: Hose reel valve may remain open throughout the run.

PENALTIES – EVENT No 22

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
3	Failure to close tank to pump valve as prescribed.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle .	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
20	Handling additional equipment before required	10
21	Charging hose before clear of locker.	10
22	Exceeding 1050 kpa main pump pressure	20

Event 22



Drawings are NOT TO SCALE

EVENT No 23: EXTINGUISHER AND DELIVERY (2 competitors)

An appliance with standpipe, key and bar stowed, flaked feeder consisting of 1 x length 70 mm hose stowed in flake locker. Flaked delivery consisting of 1 x length 70 mm and 1 x length 45 mm hose with controlled branch all pre-connected and stowed in flake locker.

1 x portable extinguisher stowed in equipment locker as size of locker dictates. Hose must be clear of the locker before charging feeders or deliveries.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle**.

The tank to pump valve must remain closed during the event.

Team to commence the event from the start line 2 metres to the front of the appliance.

Team to get to work with one member taking extinguisher and striking first target using nozzle of extinguisher. Extinguisher must be left standing upright after target has been broken.

The member taking the extinguisher may not handle, or assist with, any additional hose or equipment until extinguisher duties are complete

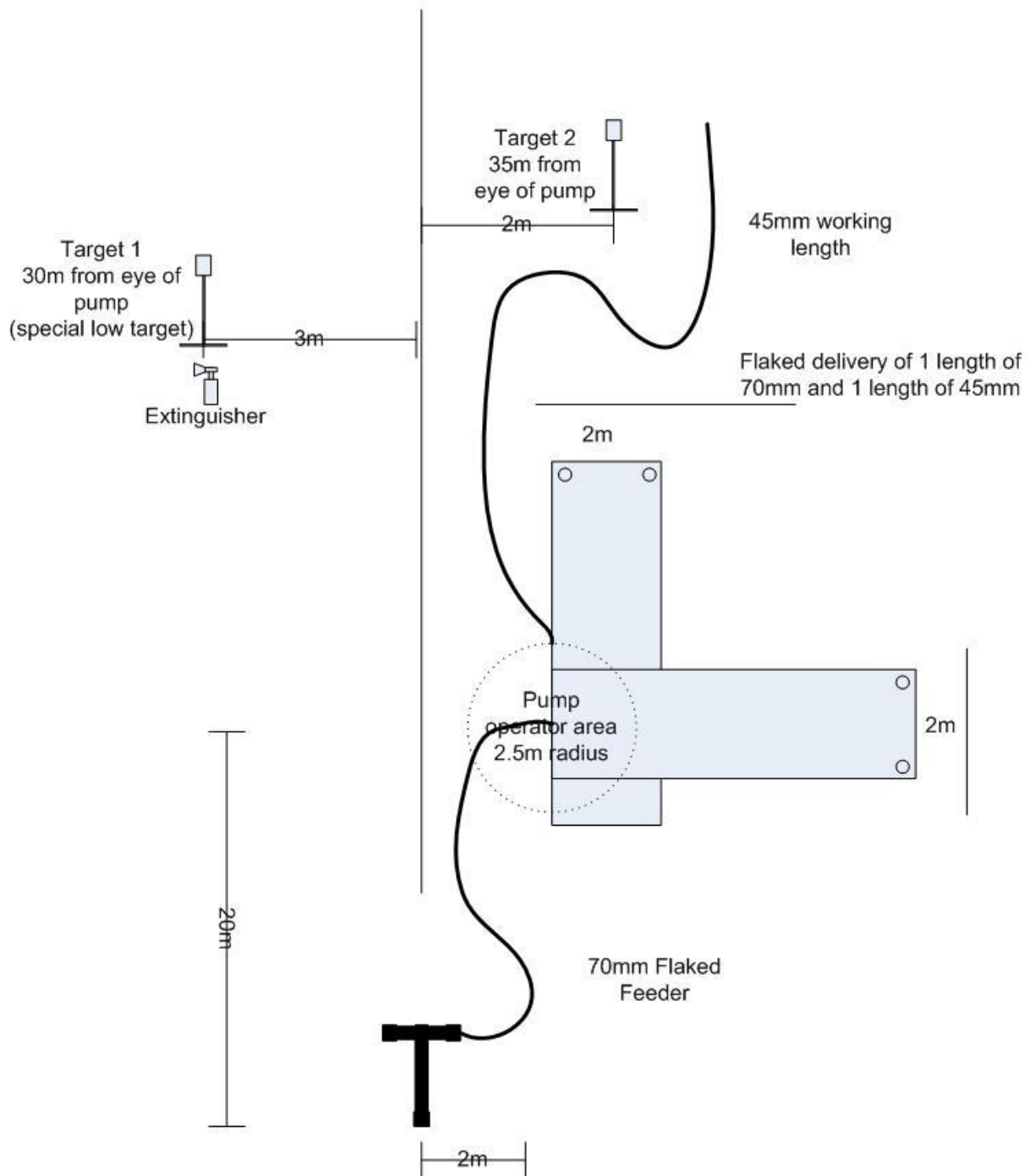
Standpipe, key and bar are taken, clear hydrant. Standpipe to be fully screwed down and flushed before connecting feeder. Feeder is connected to pump, water is turned on.

Flaked delivery is run out as specified, after 1st target has been struck, and second target broken ending run. The flaked loop can be either side of the delivery.

PENALTIES – EVENT No 23

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle .	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
8	Extinguisher not left in a stable upright position, prior to leaving target.	5
9	Opening the tank to pump valve at any time during the event.	10
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
20	Handling additional equipment before required	10
21	Charging hose before clear of locker.	10
22	Exceeding 1050 kpa main pump pressure	20

Event 23



Drawings are NOT TO SCALE

EVENT No 24: APPLIANCE WITH SUCTION (2 competitors)

An appliance with 2 x lengths of suction hose correctly stowed, strainer attached.

1 x length of 45 mm coiled hose stowed in hose locker.

1 x controlled branch, suction line and 2 x suction spanners stowed in equipment locker.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open and/or pump is not at idle.

The delivery can be connected to any outlet.

A **sump** or portable dam will be located as per measurements on drawings.

Team to commence the event from the start line 2 metres to the front of the appliance.

Suction line to be fastened with clove hitch to incorporate ~~or touch any part of~~ the strainer and

the other end attached to the appliance with a round turn and two half hitches.

Spanners to be correctly applied to suction.

Pump operator not to use accelerator or primer until strainer is in water and all suction couplings connected. Pump operator not to accelerate pump until pressure is shown on the main pressure gauge.

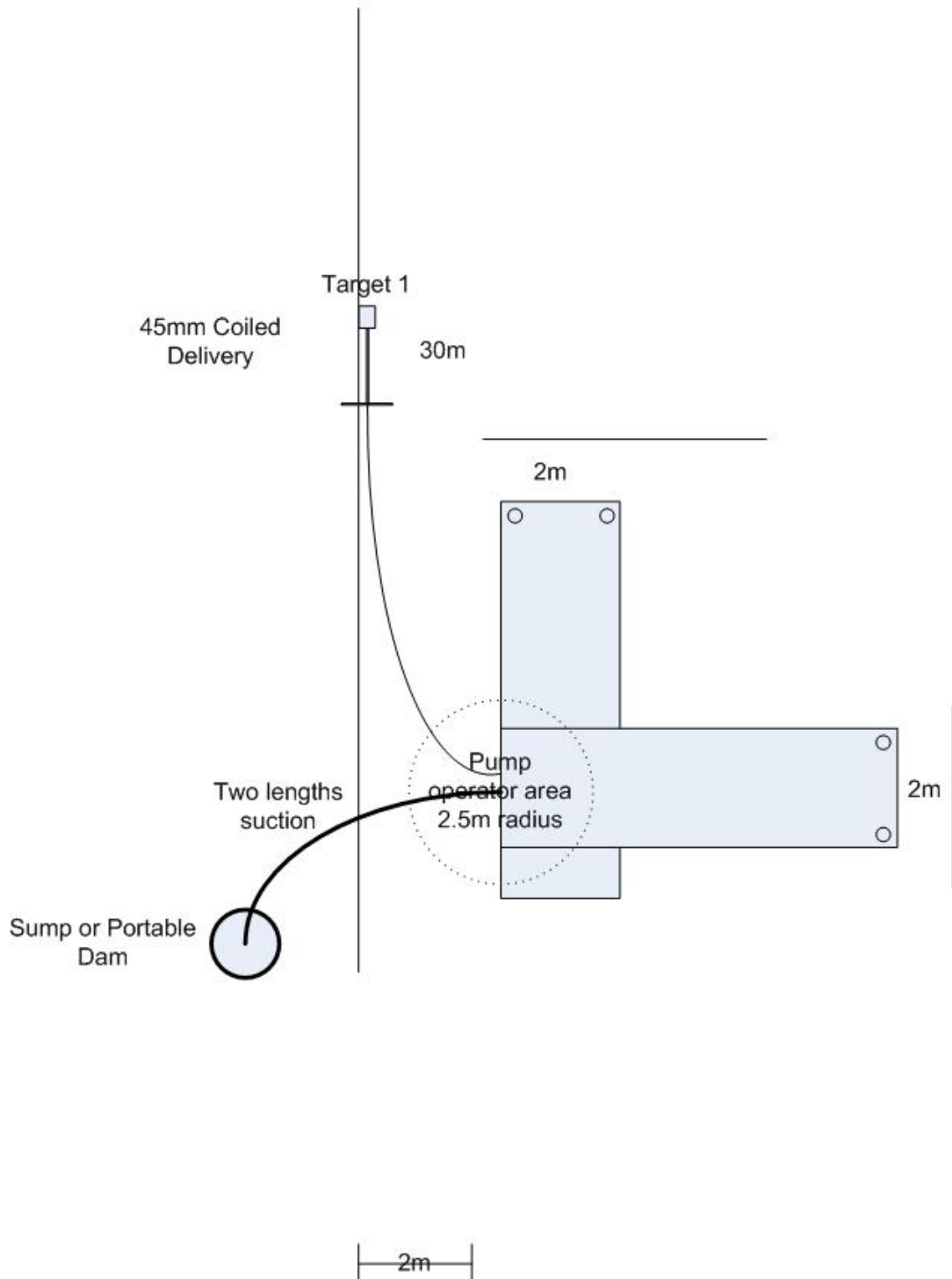
Delivery to be run out and target broken ending run.

At conclusion of event a Judge will lift the suction lengths from the sump by the line for examination by the Judges and may be assisted by the pump operator. No team member may touch the line at this stage.

PENALTIES – EVENT No 24

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
9	Opening the tank to pump valve at any time during the event.	10
10	Tightening any equipment or disconnecting couplings after last target is broken or couplings not made when last target is broken.	10
12	Not using applying spanners correctly.	5 each breach
14	Not tying correctly stipulated knots	5 each breach
22	Exceeding 1050 kpa main pump pressure	20
23	Primer not to be used until strainer is in the water and all suction couplings connected. Appliance pump not to be accelerated until the pump gauge indicates pressure.	10 each breach

Event 24



Drawings are NOT TO SCALE

EVENT No 25: DELIVERY FROM TOWER (2 competitors)

An appliance with standpipe, key and bar stowed, coiled feeder consisting of 1 x length 70 mm hose stowed in hose locker.

Delivery consisting of 1 x length flaked 45 mm hose with controlled branch attached stowed in flake locker. 1 x hose becket stowed in equipment locker. 1 x safety harness.

Hose must be clear of the locker before charging feeders or deliveries.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle.**

The tank to pump valve must remain closed during the event.

Team to commence the event from the start line 2 metres to the front of the appliance.

Ladder to be climbed using manner prescribed in photos at the beginning of rules.

Standpipe, key and bar are taken, clear hydrant. Standpipe to be fully screwed down and flushed before connecting feeder. Feeder is connected to pump, water can be turned on at any time.

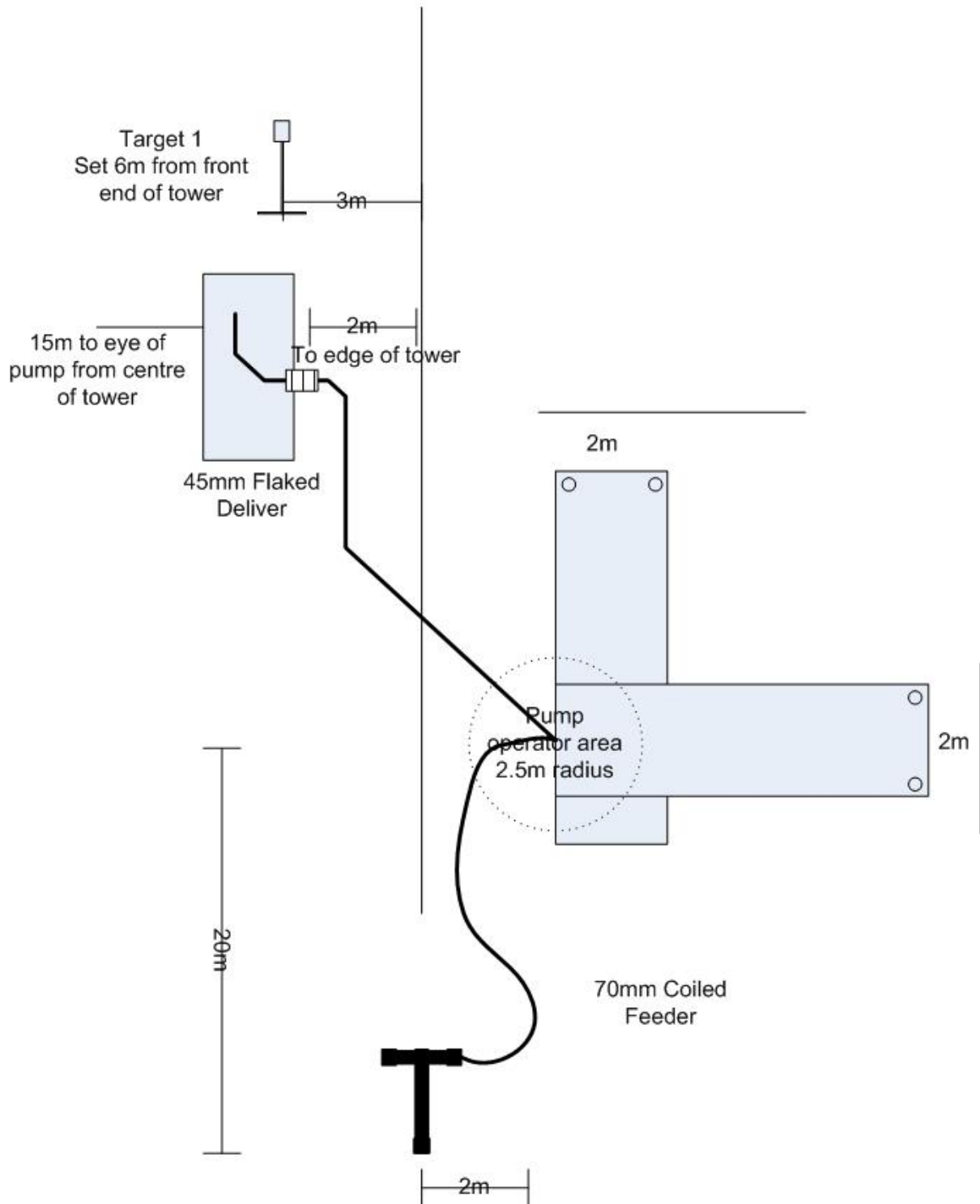
45 mm delivery is run out and connected to pump. Branch person climbs ladder on to platform. After both feet are on the platform, attaches hose with hose becket to ladder on a round above platform level, attaches safety harness and has branch in hand prior to giving order "Water on Delivery".

Order is repeated by pump operator prior to opening delivery valve and target is broken ending run. ~~Orders may overlap. However, the onus is on teams to give 'clear and concise orders' to remove any ambiguity and confusion if they choose to overlap.~~ **Orders must not overlap.**

PENALTIES – EVENT No 25

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
5	Hydrant to be flushed to allow water to hit ground before connecting feeder(s).	5
6	Not attaching hose becket or harness correctly or branch not in hand prior to giving order "Water on".	5 each breach
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
9	Opening the tank to pump valve at any time during the event.	10
13	Not carrying out allotted duties including clear and concise orders.	5 each breach
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
18	Stepping off the ladder from below the platform.	10
21	Charging hose before clear of locker	10
22	Exceeding 1050 kpa main pump pressure	20

Event 25



Drawings are NOT TO SCALE

EVENT No 26:

APPLIANCE WITH EJECTOR PUMP (2 competitors)

An appliance with 2 x lengths 70 mm coiled hose and 2 x lengths 45 mm coiled hose stowed in hose locker.

1 x controlled branch and 'B' Type ejector pump stowed in equipment locker.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open and/or pump is not at idle.

The deliveries can be connected to any outlet.

A portable dam or sump will be located as per measurements on drawings.

Target delivery valve must not be opened before return water from ejector pump has reached the eye of the main pump.

Team to commence the event from the start line 2 metres to the front of the appliance.

Ejector pump to be set up into water supply with 1 x coiled 70 mm hose from pump outlet

and 1 x 70 mm coiled hose as return to pump collector head inlet. ~~Note the ejector pump is to be set up and water is to be supplied to the collector head inlet from the B type ejector within 35 seconds from the start of the run, or penalty seconds will be added to the run time at the rate of 1 second for every second longer than 35 seconds.~~

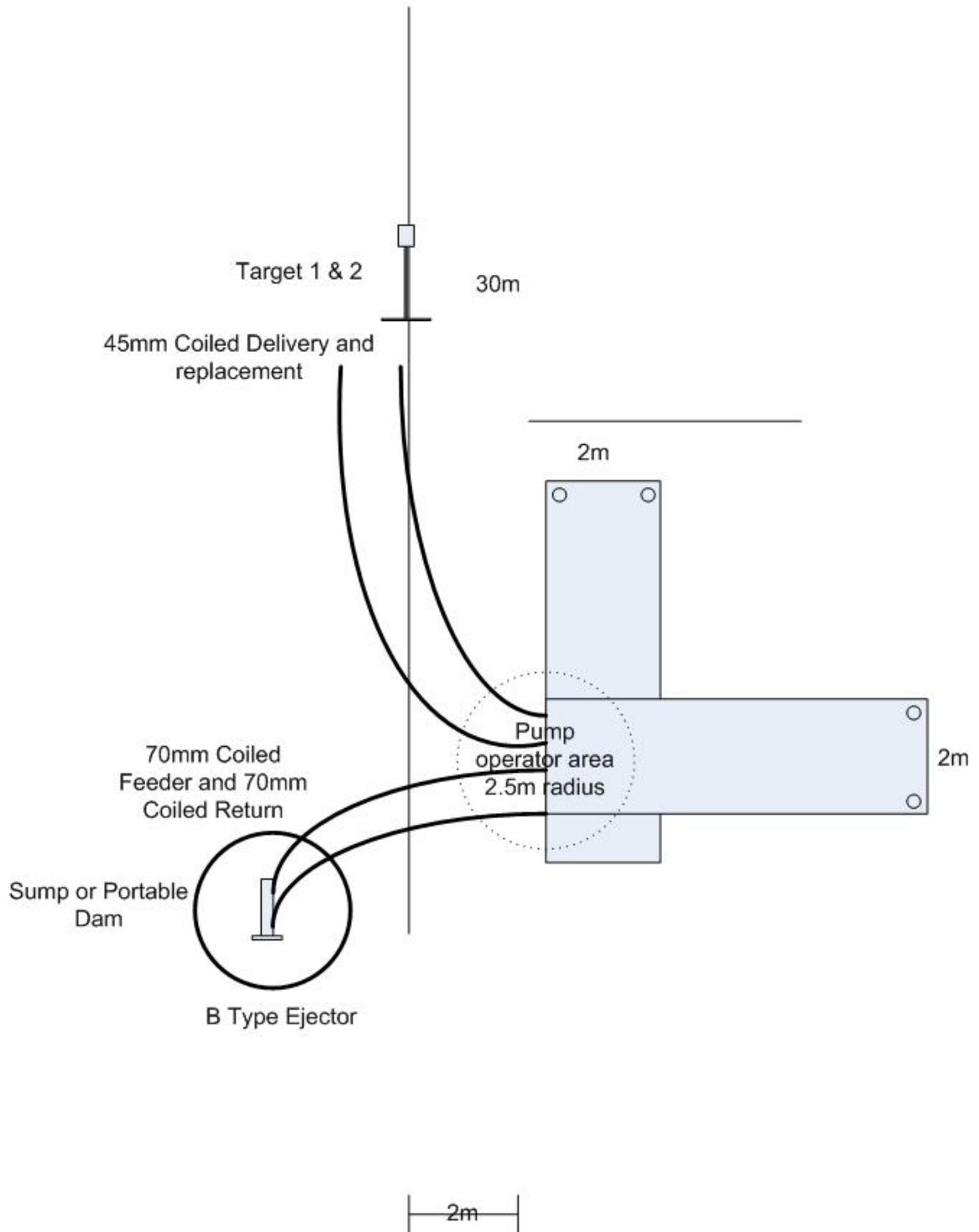
Delivery of 1 x 45 mm coiled hose to be run out and 1st target struck. **Tank to pump valve must now be closed.** ~~then~~ A replacement delivery to be established striking 2nd target **using water supply from the 'B' Type** and a knot tied in disabled length, ending run.

Tank to pump valve must be closed, and remain closed before opening delivery to second target. If pressure is lost, delivery valve must be re-closed before opening tank to pump valve again.

PENALTIES – EVENT No 26

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
14	Not tying correctly stipulated knots	5 each breach
15	Not having return water to inlet collector from B type within stipulated time.	1 second for every second over stipulated time
15	Having extension delivery (46) / replacement delivery (26) valve open concurrently with tank to pump valve	30
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
19	Opening target delivery valve before return water from ejector pump has entered eye of main pump. Not opening pump inlet valve fully, before and while delivery valve is opened.	20 each breach
20	Handling additional equipment before required	10
22	Exceeding 1050 kpa main pump pressure	20

Event 26



Drawings are NOT TO SCALE

EVENT No 27: PORTABLE PUMP (2 competitors)

An appliance with 2 x lengths of suction hose correctly stowed with strainer attached. 1 x length of 45 mm bight hose stowed in hose locker.

1 x controlled branch, suction line and 2 x suction spanners stowed in equipment locker.

Portable pump on stand with blank cap fitted.

A portable dam or sump will be located as per measurements on drawings.

Team to commence the event from the start line 2 metres to the front of the appliance.

Both suction lengths to be removed from appliance before making couplings.

Suction line to be fastened with clove hitch to incorporate the strainer and the other end attached to the pump stand or pump with a round turn and two half hitches.

Spanners to be correctly applied to suction.

Portable pump operator not to use accelerator or primer until strainer is in water and all suction couplings connected.

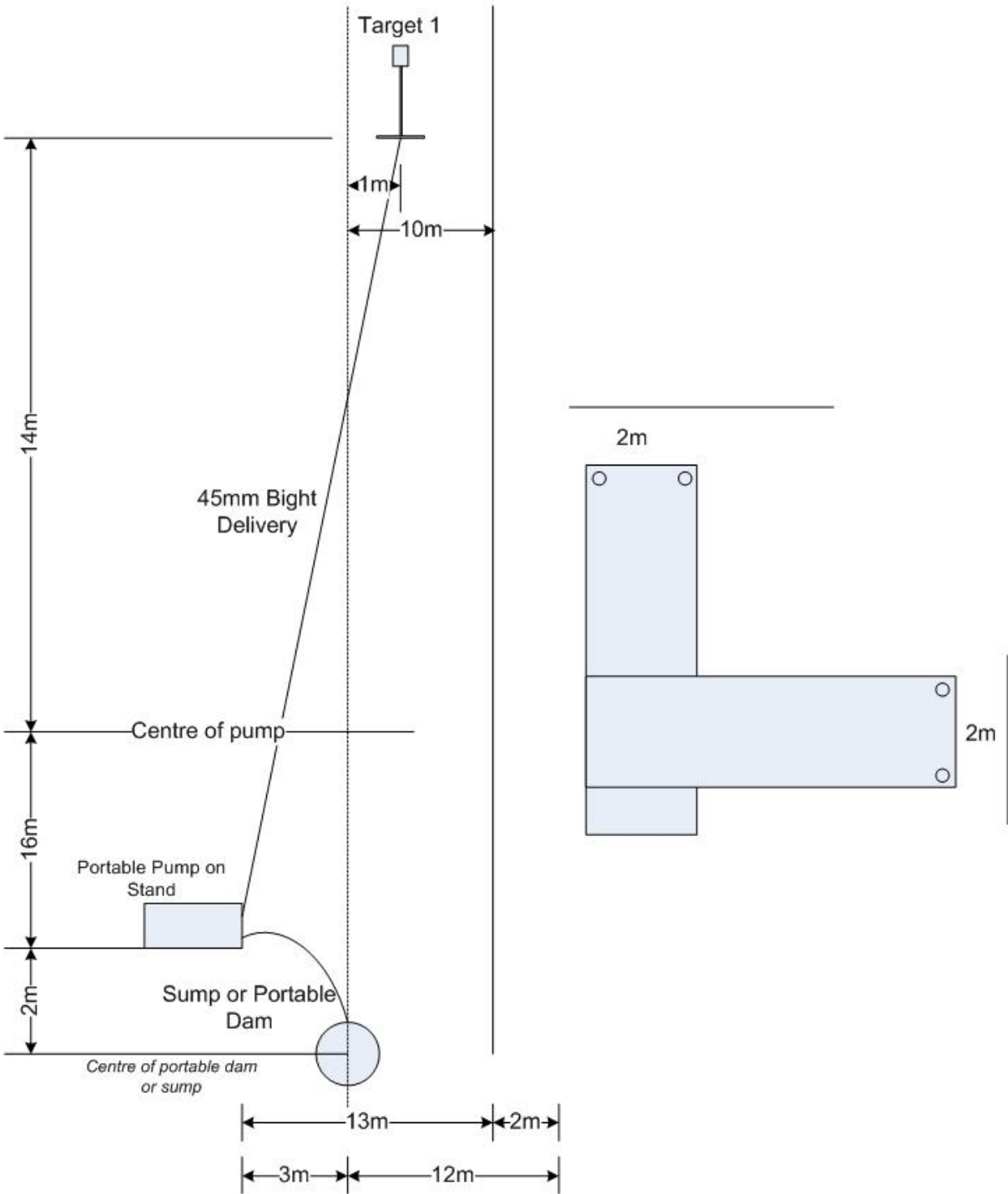
1 X 45 mm bight delivery hose to be connected and run out from the portable pump. Branch must be connected and in hand prior to giving order "Water on Delivery". Order is repeated by pump operator prior to opening delivery valve target is broken ending run. Orders must not overlap.

At conclusion of event a Judge will lift the suction lengths from the water by the line for examination by the Judges and may be assisted by the portable pump operator. No other team member may touch the line at this stage.

PENALTIES – EVENT No 27

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
9	Opening the tank to pump valve at any time during the event.	10
10	Tightening any equipment or disconnecting couplings after last target is broken or couplings not made when last target is broken.	10
12	Not using applying spanners correctly.	5 each breach
13	Not carrying out allotted duties including clear and concise orders.	5 each breach
14	Not tying correctly stipulated knots.	5 each breach
22	Exceeding 1050 kpa main pump pressure	20
23	Primer not to be used until strainer is in the water and all suction couplings connected.	10 each breach

Event 27



Drawings are NOT TO SCALE

EVENT No 28: GROUND MONITOR – TWIN FEEDERS (2 competitors)

An appliance with standpipe, key and bar stowed, flaked feeder consisting of 2 x lengths of 70 mm hose stowed in hose locker.

Delivery consisting of 2 x lengths of coiled 70 mm hose stowed in hose locker. Hose must be clear of the locker before charging feeders or deliveries.

Ground monitor with dual head collecting breeching and lashing lines fitted and setup on track. Monitor aimed towards target and set horizontal at start of event.

The pump operator to be within the 2.5 metre designated area whenever delivery valves are open **and/or pump is not at idle**.

The tank to pump valve must remain closed during the event.

Team to commence the event from the start line 2 metres to the front of the appliance.

Standpipe, key and bar is taken, clear hydrant.

Standpipe to be fully screwed down and flushed

before connecting feeder(s). Feeder(s) are connected to pump, water is turned on.

2 x 70 mm delivery hoses to be run out and connected to ground monitor as specified, including tying both deliveries individually with a round turn and two half hitches so that they are held in place across the legs of the monitor.

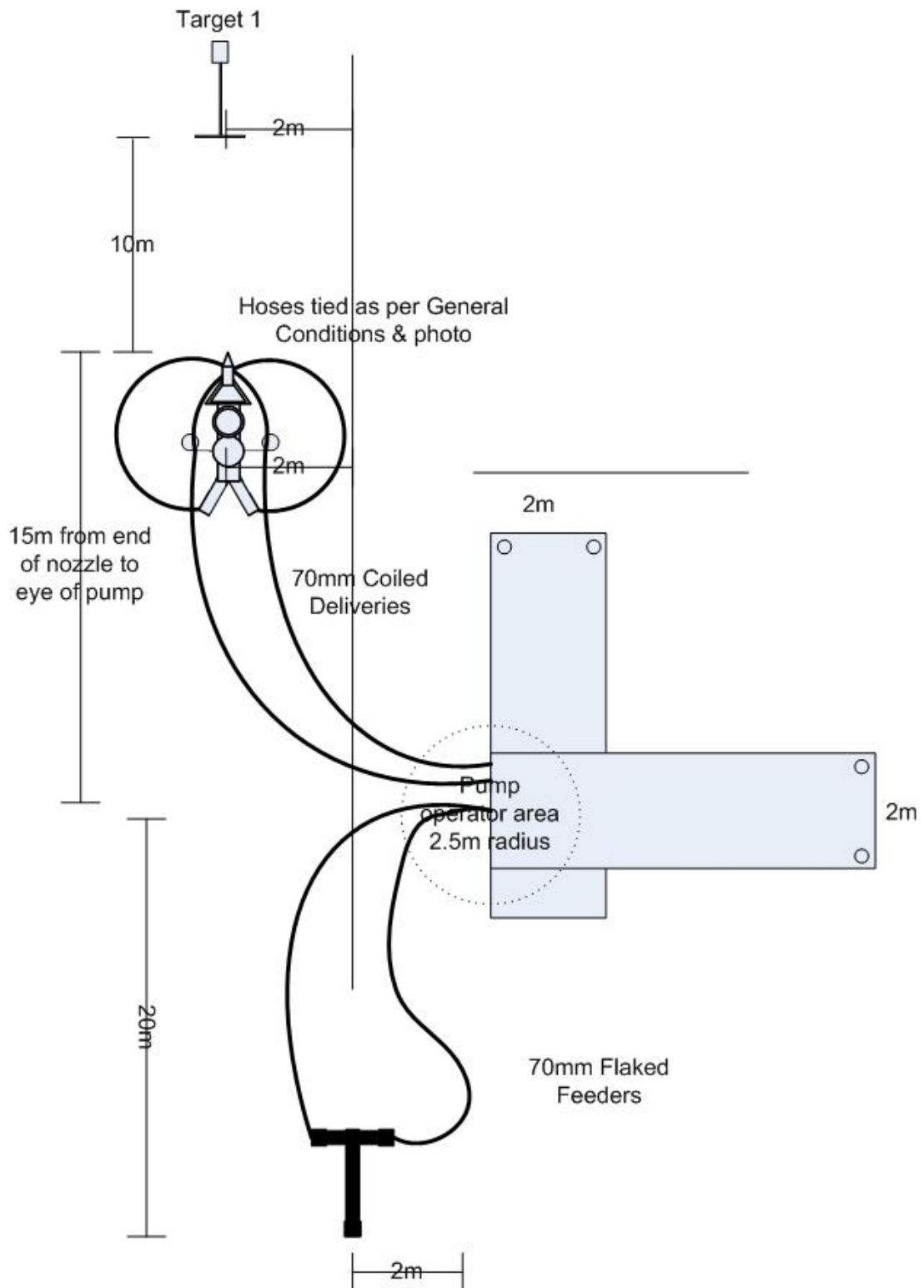
Branch person to operate monitor to break target, ending run. Open hand can be used to direct the nozzle left or right. Monitor elevation, up or down, can only be adjusted using the winding mechanism.

Note the lines must **be tight and** hold the deliveries over the legs or plate. Penalty 17 applies.

PENALTIES – EVENT No 28

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle .	10 each breach
5	Hydrant to be flushed to allow water flow to hit ground before connecting feeder(s).	5
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
9	Opening the tank to pump valve at any time during the event.	10
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
17	Not running deliveries correctly, including tying stipulated knots.	5 each breach
21	Charging hose before clear of locker.	10
22	Exceeding 1050 kpa main pump pressure	20

Event 28

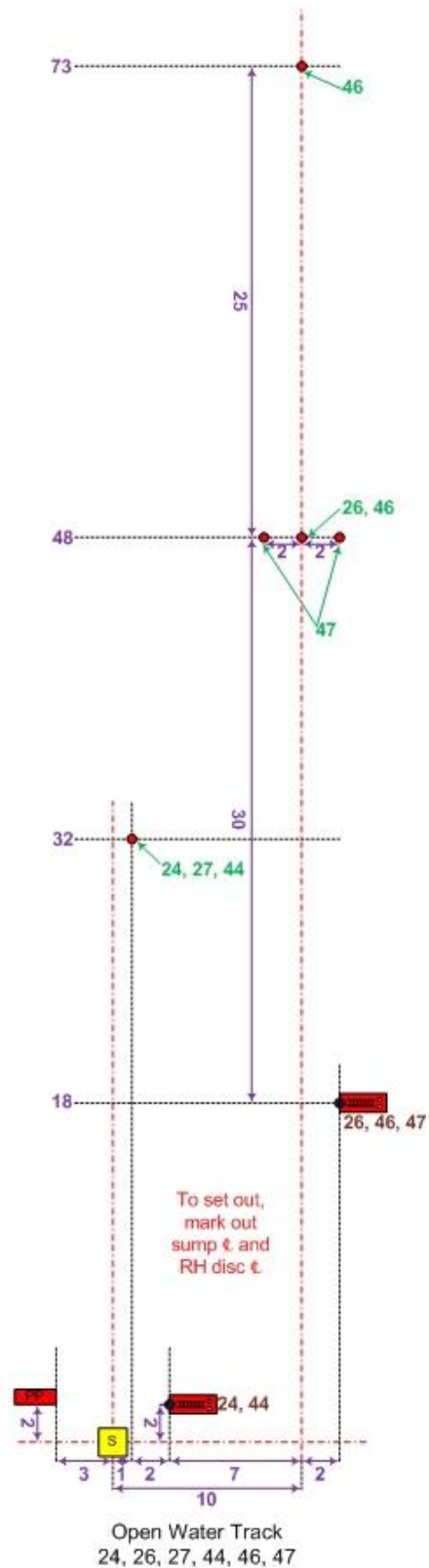
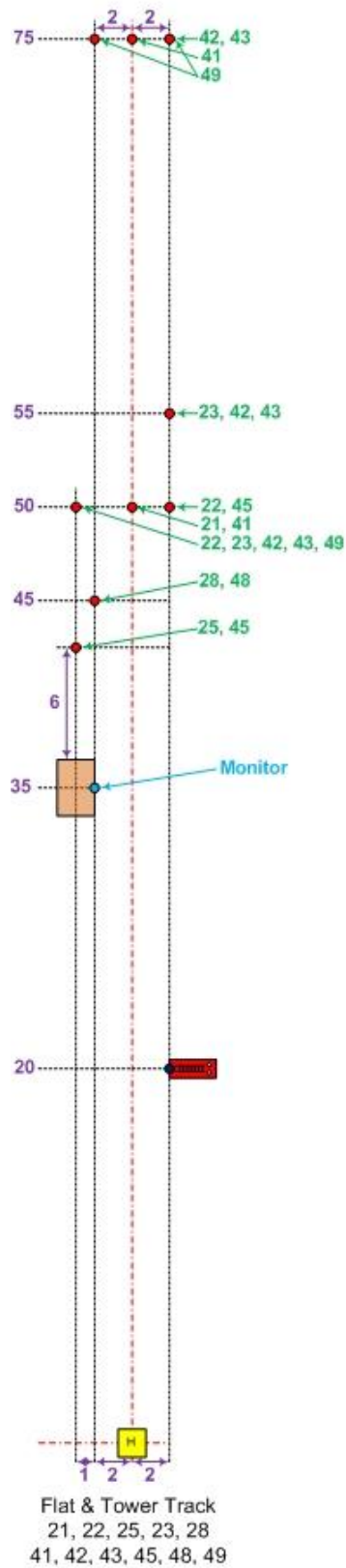


Drawings are NOT TO SCALE

TABLE OF PENALTIES Note: can be applied to any runs by Referee if required.

No	Description	Seconds
1	In the case of any competitor using disrespectful language or the team not carrying out the event as described in the general conditions and run description e.g. striking targets in wrong order.	10
2	All work to be gone through in a proper working manner and no gear to be handled in a way likely to damage it or likely to cause injury to any person. This includes throwing equipment.	10
3	Failure to close tank to pump valve as prescribed.	10
4	Pump operator leaving designated area 2.5 m from centre of pump panel in any direction when delivery valves are open and pump is not at idle.	10 each breach
5	Hydrant to be flushed to allow water to hit ground before connecting feeder(s).	5
6	Not attaching hose becket or harness correctly or branch not in hand prior to giving order "Water on".	5 each breach
7	Failure to fully tighten standpipe, or loose standpipe at end of run.	10
8	Extinguisher not left in a stable upright position, prior to leaving target.	5
9	Opening the tank to pump valve at any time during the event.	10
10	Tightening any equipment or disconnecting couplings after last target is broken or couplings not made when last target is broken.	10
11	No assistant branch person when water shown. No assistant branch person when target broken.	5
12	Not using applying spanners correctly.	5 each breach
13	Not carrying out allotted duties including clear and concise orders. Orders not to overlap.	5 each breach
14	Not tying correctly stipulated knots.	5 each breach
15	Not having return water to inlet collector from B type within stipulated time.	1 second for every second over stipulated time
15	Having extension delivery (46) / replacement delivery (26) valve open concurrently with tank to pump valve	30
16	Appliance pump not to be accelerated until water reaches inlet or tank valve open.	10
17	Not running deliveries correctly, including tying stipulated knots.	5 each breach
18	Stepping off the ladder from below the platform.	10
19	Opening target delivery valve before return water from ejector pump has entered eye of main pump. Not opening pump inlet valve fully, before and while delivery valve is opened.	20 each breach
20	Handling additional equipment before required.	10 each breach
21	Charging hose before clear of locker.	10
22	Exceeding 1050 kpa main pump pressure.	20
23	Primer not to be used until strainer is in the water and all suction couplings connected. Appliance pump not to be accelerated until the pump gauge indicates pressure.	10 each breach

NZ 2 Track Setup



NZ 3 Track Setup

