**DNO/228 – MoE Training Rig**

**Annex D to the DEFORM 47**

**USER DEFINED REQUIREMENT FOR THE METHOD OF ENTRY RIG AT ATOMIC WEAPONS ESTABLISHMENT**

**Introduction**

This User Defined Requirement (UDR) relates to the provision of a long-term installation of a Method of Entry (MoE) Rig at Atomic Weapons Establishment (AWE), to support the ongoing capability requirement of the Ministry of Defence Police (MDP) across the AWE complex to effectively search structures. The purpose of this document is to fully define the Technical/Operational requirements of the item(s).

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| **SERIAL** | **CATEGORY** | **OBJECTIVE** | **PRIORITY** | **ACCOUNT** |
| 1 | MoE Rig Size, number and dimensions of lanes, doors, fixtures, and fittings   | Provide the right quantity and dimensions of Doors / Lanes / Fixtures and Fittings to meet Learning Outcomes.  | High | The MDP require a MoE rig, that the Police MoE instructors will deliver training on. This training will be in line with the College of Policing - National Police Firearms Training Curriculum (NPFTC) and will be delivered by suitably qualified police trainers only. The supplier will fit and service the MoE rig, whilst MDP instructors will deliver the MoE training. To meet the MDP Learning Outcomes and Assessment Criteria within Firearms Method of Entry Level 1 (Standard) and Level 2 (Advanced), there must be a minimum number of doors and other associated furniture to meet the requirements in an efficient and capable way. The rig will be a cuboid shaped steel frame, dissected by lanes. The officers will train from both outside the frame and within the lanes. Each lane will feature doors of varying natures / characteristics at each end of said lanes. The MoE rig supplier must be able to provide a frame and all the doors described below whilst remaining efficient and economical with the dimensions and size of the rig. This is to enable the user to fit the rig into the designated venue/building whilst maintaining sufficient space to work around it effectively. Viewing can be arranged, and dimensions of building can be provided.The following specifications will be set out as a minimum to meet for the MoE Rig. Lanes:* Number of – 4
* Width – 1000 – 1200mm
* Length – 1500 – 2000mm

Doors/Gate: * Number of – 7 conventional + 2 adjustable frames (see below for door specifics)
* Aperture width – 1000-1200mm (matching lane width)
* Door frame width both left and right – 140-180mm x 140-180mm, constructed of steel
* Must feature locking points at the top, middle and bottom of the door.
* Locks will be replicated using pine battens of approximately 200mm length, 20mm height and 20mm width.
* Inward opening doors should feature a ‘strike plate’ to absorb the impact of kinetic equipment. the strike plate should be made from plywood sheet and able to withstand kinetic impact form a 35lb enforcer over multiple uses. This would approximately be around 300 hits per locking point per annum.
* Outward opening doors should feature a baton running up the length of the locking edge of the door in order to enable the practise of outward opening method of entry with hooligan tools. This must be able to withstand the impact of a hooligan being forced in with the use of an enforcer and subsequently pried open. This use occurs approximately 200 times per annum.
* The doors should be made from wood and be of a thick enough width/gauge to withstand multiple kinetic strikes. It would be expected that the doors would withstand MOE strikes for 5 years.

Typical Overall MoE Rig Footprint for example:Width – 4700mm – 5700mmLength – 1780mm – 2360mmWorking space around the frame required – 1500 – 2500mmRequired Doors/Gate1. 3 x Inward Opening – Hinged / Hanging Left: For officers to carry out Kinetic, hydraulic and Pneumatic MoE whilst utilising left hand leading MoE techniques, as well as determining specific firearms team formation on the door, defined by the emerging room view. 1 x door to be approached and operated on by officers from outside the frame, allowing for a larger working space. 1 x door to be operated on from within the lane confines, creating a confined space working area.
2. 1 x Inward Opening – Hinged / Hanging Right: For officers to carry out Kinetic, hydraulic and Pneumatic MoE whilst utilising right hand leading MoE techniques, as well as determining specific firearms team formation on the door, defined by the emerging room view. Ideally should be manufactured to hang for officer approach from outside the frame but could be within the confines of the lane.
3. 1 x Outward Opening – Hinged / Hanging Left: For officers to utilise outward opening door MoE equipment, mainly kinetic tools, as well as determining specific firearms team formation on the door, defined by the emerging room view.
4. 2 x Outward Opening – Hinged / Hanging Right: For officers to utilise outward opening door MoE equipment, mainly kinetic tools, as well as determining specific firearms team formation on the door, defined by the emerging room view.
5. 1 x Barred Metal Gate: Hinged either way, to be used for defeating chains and padlocks. When gate is opened, the frame should also have the capacity to be utilised for mounting metal fencing of various natures, to be used in conjunction with bolt cutters (kinetic L1) and disc cutter (battery/fuel L2).
6. 2 x Adjustable Door Frame: For mounting and securely bracing composite doors, for achieving lock breaking (lock snapping and lock pulling) on typical domestic and locking office doors (Level 1). Further to this will be the use of the reciprocating saw to quickly defeat said doors. (Level 2).
7. 1 x Stepped / Confined Approach: Step to be constructed primarily in conjunction on an inward opening door (most found), however can be on outward or other. A door that is between two lanes (adjoining), to enhance proficiency in carrying out Firearms Method of Entry in confined spaces would be a favourable feature.

Required Level 2 Rig Features1. Adjustable Window Frame: To insert various natured window frames consisting of either float, toughened/safety, or laminate glass of differing sizes, into the adjustable frame to meet the Level 2 FMoE requirement. Window frames are typically sourced by MDP MoE instructors from local window fitting companies as used windows for disposal, so will vary in size. Most common UK window sizes range from 635 x 890mm to 736 x 1498mm. These should be able to be placed and clamped securely into position, so the window frame does not move when being hit by a hooligan tool. The window frame should feature a protected backdrop so that any glass can be caught, managed, and cleared as simply as possible. This will minimise time spent clearing debris and maximise Health and Safety.
2. Mount / Vice for Metal and Hot Works: To insert metals for use with hot works in conjunction with the disc cutter. Metals will typically include pipes, bars and any other specific metal utilised on AWE, that the MoE team deem as necessary to be familiarised with.
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| 2 | MoE Provider | Initiate supply and service of MoE Rig, Kit and Equipment from an industry certified source. | High | It is highly recommended that the MoE provider is recognised as appropriately qualified and recognised as such within the industry, for providing a high quality and reliable service. It is imperative that quality management principles are adhered to and therefore recommended that the provider is at minimum ISO 9001 certified.  |
| 3 | Type of Frame | The Frame must be guaranteed to a high quality with robust and sturdy metal, as well as associated furniture. | High | For effective longevity and consistency in training, the rig will need to be long lasting. The material it is constructed of, preferably steel, will need to be thick enough to enhance its lifetime. We would expect the rig to endure a 15-year period of use. The checks and replacements would form part of the annual serviceability inspection carried out by the supplier. Throughout its life it will need to withstand high force impacts from kinetic, hydraulic, pneumatic and fuel powered equipment. The Rig must achieve the ability to withstand any degradation and fatigue when used as specified. |
| 4 | MoE Rig Quality | The Rig needs to be constructed to a high quality with a long-term product guarantee | High | The design will more than likely be bespoke, constructed to requirements set out by MDP MoE specialists. However, the bespoke design will likely be drawn from and based on existing designs. Construction and material used in the rig must be of high quality. Work carried out must be completed by professional and experienced designers as well as fitters. This must produce a lifetime guarantee on the product  |
| 5 | MoE Rig and Furniture Quality | The Rig furniture needs to be constructed to a high quality. | High | The doors and other furniture used within the MoE rig must be made to a high standard using quality wood and metal. The doors used must be of a thick gauge typically between 40 and 50mm, and a suitable ply to withstand a multitude of kinetic, hydraulic, and pneumatic MoE breaches. Whilst the Rig should be fixed into position in the identified indoor venue, therefore benefiting from protection from weather, the building will not be completely free of moisture and cold. The wood used must have a resistance to moisture ingression so that it does not become distorted within the frame. The steel frame itself must be resistant to the ingress of rust.  |
| 6 | MoE Rig Dimensions | Provider to design and construct a rig that meets the user requirement, with minimal space taken. | Medium / High | The provider must be able to design and construct an MoE rig that meets the training needs set out by the MoD Police. The NPFTC and the modules set within are not accessible to the public eye. Therefore, ongoing consultation is encouraged and may be required during the design process to ensure any ideas meet the needs of the end user. The MDP MoE specialist trainers will be able to provide guidance through knowledge of the curriculum itself and the accumulative exposure to a variety of MoE Rigs use throughout their career, to accurately consult on design. Furthermore, whilst this design must achieve the requirements being demanded, it must also necessitate as minimal space as possible. To meet the criteria set out in both Level 1 (standard) and Level 2 (advanced) MoE, the MoD Police will require a minimum of a 4-lane rig, with 7 doors, comprising of both inward and outward opening. Attached to this will be the capacity to carry out hot works and window breaching. The customer (DNO), cannot give specific measurements as to the size of the structure in which the rig will be housed, the design must nonetheless be of a reasonable footprint. A need for a 1.5 – 2 metre working space around each side of the rig will also need to be considered. Therefore, economy and ingenuity in design must be always taken into consideration. Site visits will be arranged for all tenderers.  |
| 7 | MoE RigManoeuvrability | Ability to remove and relocate the rig should the venue become unserviceable. | Medium / High | As has occurred with many buildings and venues across the MoD and Home Office Policing, the building or location the Rig is situated may become unusable for various reasons. Therefore, in these circumstances, the rig should have the capacity to be removed from its location and re-sited in another so it can continue to be used.  |
| 8 | MoE Rig Servicing and Maintenance - Annual | Supplier to have the capacity to service and maintain the rig they provide. | Medium / High | Once a rig has been sourced, delivered, and fitted, the provider will provide their own expert personnel to annually service and maintain the rig and its associated furniture. This must be reliable and carried out to a high standard in order to encourage the lifespan of the rig. The provider should have the capability to meet this requirement and guarantee that a regular service plan can be put in place. Further to this they should be able to provide a forecast of costing for the servicing and maintenance. If this service is not available with the rig as a ‘package’, there is a real risk that the organisation will not be able to source a service provider that holds the essential and specialist knowledge in maintaining such bespoke equipment. The strike plates and batons are to be replaced on an annual basis. |
| 9 | MoE Rig Maintenance - AdHoc | Supplier to provide a manual and training to MDP MoE instructors to conduct minor servicing and maintenance. | Medium  | To maximise the ongoing operational capability of the MoE rig and in turn Police Officers themselves, the MDP MoE instructors should be provided with the knowledge and capabilities that will certify them to carry out minor non-specialist servicing and repairs. The rig will feature areas where natural wear occurs through use. This for example occurs on the door strike plates. These should be designed to be replaced in a reasonably easy manner as it is recognised these are essentially sacrificial pieces of material. Although the life span of these is considerable given the quantity and weight of kinetic energy put through them, they nonetheless will need replacing at appropriate intervals. To save cost, time and missed training contact hours, the MDP MoE instructors should be able to maintain such items themselves. It is expected that the supplier will provide a list of minor repairs that the MDP will be allowed to perform without invalidating the service plan or guarantee. Any minor repairs that cannot be performed by the MDP MoE instructors will need to be performed by the supplier. |
| 10 | Optional MoE Rig Adaptability – Policing General  | Supplier to have the capacity to service and maintain the rig they provide. | Medium/ High | As the industry designs in lockable apertures progress and the method used by criminals to defeat police changes, we too must have the ability to remain flexible in what the curriculum can deliver in order to meet the latest needs. This in turn means the rig provided should be designed so that it can be adapted in the future. Should lanes need adding or furniture need changing, the rig should have the capacity to support this.  |
| 11 | Optional MoE Rig Adaptability – Specialist Policing at AWE  | Ability to add to or change the Rig to allow for change in curriculum. |  | As with any MoD and Police Force, there may be a proclivity for specific and somewhat unique doors or windows to be used in certain areas and therefore the MoE officers will need to train on these, to become familiar in how to breach and defeat them. This is certainly the case with AWE unique doors & windows. Therefore, it would be highly preferable if the MoE provider, upon request, were able to provide the MoD police with replicable items such as doors, that have been identified by police on site for needing MoE familiarity. These items must have the capacity to be used in conjunction with the MoE rig, for the officers to become well practised and efficient in defeating the security measures, being especially favourable in a time a critical situation. |

**Security**

To be allowed access to site at AWE Aldermaston by security, contractors must be able to provide the information listed below:

* Name
* National Insurance Number
* Place of Birth (any contractor from a Tier 1 or 2 country will not be granted access due to the length of time it would take for security clearance compared to the length of the requirement)
* Date of Birth
* Any criminal convictions – this will be submitted to security for consideration

At all times, the contractors must be escorted by AWE personnel in a 1:4 ratio

**Cyber Security**

The cyber risk profile has been classified as “**Very Low**”. Tenderers for this contract must complete a Supplier Assurance Questionnaire (SAQ) via this link [Supplier Assurance Questionnaire (SAQ) (Page 1 of 26) (office.com)](https://forms.office.com/pages/responsepage.aspx?id=7WB3vlNZS0iuldChbfoJ5Tia6pS3VU5EuhfRvV-BqYtURTFYMUpPOElZTjNUNDhaVjFLVklJMVpPUi4u). The Risk Assessment Reference is **RAR-825914823**.

Should the SAQ not pass security checks, the winning tenderer will be given the opportunity to implement a Cyber Implementation Plan to reach the MOD Cyber Security standards prior to contract award.

**Site Visits**

**It is recommended at your earliest convenience Tenderers should contact Commercial Officer John Harris (****John.Harris172@mod.gov.uk****) to arrange a site visit to view where the rig is to be installed.**