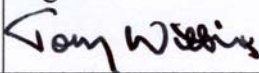






# HM NAVAL BASE HMS DRAKE DEVONPORT

<b>AUTHOR</b>	A Williams (EPO1)	Signed: 	Date: 17.11.06
<b>CHECKED</b>	J D L Mann (CSEPO)	Signed: 	Date: 17-11-06
<b>SPONSOR</b>	Captain J Coulthard (CBS)	Signed: 	Date: 21.11.06

## HEALTH & SAFETY AT WORK A GUIDE FOR CONTRACTORS WORKING IN THE NAVAL BASE, OUTSTATIONS & AFLOAT

**Issued by:** The Devonport and Western Area Health & Safety Group (DWAHSG)

[http://www.buzzard.dlo.r.mil.uk/b\\_healthsafety/h&s/Contractors%20guide%20Issue%206.pdf](http://www.buzzard.dlo.r.mil.uk/b_healthsafety/h&s/Contractors%20guide%20Issue%206.pdf)  
<http://www.mod.uk/DefenceInternet/MicroSite/DLO/OurPublications/HandsGuidanceForContractorsAtHmnbDevonport.htm>

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## Amendments History

Amendment No.	Description	Date	Inserted by
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## **SECTION 1: INTRODUCTION**

- 1.1 This guide is sponsored by Captain Base Safety, HM Naval Base Devonport.
- 1.2 The contents of this guide are intended to highlight some of the main hazards which contractors are likely to encounter when working in the naval base and aboard ship. In order to comply with The Health & Safety At Work etc. Act 1974, it is essential that adequate preventative measures are in place to eliminate or reduce the risks from these hazards to a level that is as low as reasonably practicable (ALARP).
- 1.3 This document applies to and must be brought to the attention of all contractors undertaking work in HM Naval Base Devonport. Contractors working within areas controlled by DML must also comply with DML requirements.
- 1.4 Errors and omissions are to be reported to the DWAHSG.

## **SECTION 2: DEFINITIONS/ABBREVIATIONS**

2.1 Contractor. A contractor can be anyone employed by the occupier or landlord, in this case the Naval Base Commander's organisation, or authorised MOD agent when afloat, who enters the premises or boards a vessel to undertake work.

### 2.2 Abbreviations

BP	Business Procedure (SFM)
CO	Commanding Officer
COMDEVFLOT	Commander Devonport Flotilla
COSHH	Control of Substances Hazardous to Health
CSEPO	Chief Safety and Environmental Protection Officer
DIN	Defence Instructions and Notices
DCSA	Defence Communication Services Agency
DLO	Defence Logistics Organisation
DML	Devonport Management Ltd.
DML (HSEM)	Devonport Management Ltd. (Health, Safety and Environment Manager)
DWAHSG	Devonport and Western Area Health & Safety Group
EIC	Estates Intelligent Customer
EMS	Environmental Management System
EP	Environmental Protection
EPO	Environmental Protection Officer
FAC	Fleet Accommodation Centre
FOST	Flag Officer Sea Training
H&S	Health and Safety
HASAWA 74	Health & Safety at Work etc Act 1974
HSE	Health & Safety Executive
HSG	Health & Safety Guidance
JSP	Joint Services Publication
LPG	Liquid Petroleum Gas
MDP	Ministry of Defence Police
MGS	Ministry of Defence Guard Service
MOD	Ministry of Defence
NARO	Nuclear Accident Response Organisation

NBC	Naval Base Commander
NBQ	Naval Base Quality Procedure
NBRPG	Naval Base Radiation Protection Group
NHS	National Health Service
NMOH	Naval Medical Officer of Health
OOD	Officer of the Day
PC	Principal Contractor
PM	Property Manager
PPE	Personal Protective Equipment
PSSC	4Cs Principal Site Safety Coordinator
PUWER	Provision and Use of Work Equipment
QHM	Queen's Harbour Master
RADHAZ	Radiation Hazard
RIDDOR	Reporting of Injuries, Diseases & Dangerous Occurrences Regulations
RNHC	Royal Naval Health Centre
SFM	Superintendent Fleet Maintenance
SIB	Safety Information Board
SSCG	Site Safety Co-ordination Group
SSEPO	Senior Safety & Environmental Protection Officer
SWL	Safe Working Load
WAFPO	Western Area Fire Prevention Officer
WSMi	Warship Support Modernisation initiative

### **SECTION 3: CONTACT TELEPHONE NUMBERS**

3.1 Health and safety related matters should be relayed in the first instance to the appropriate Host or Project Sponsor. Otherwise, advice can be obtained from safety officers as detailed:

(Afloat) Safety/Officer of the day

Chief Safety & Environmental Protection Officer	01752 557842 MOD 67842
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4Cs Principal Site Safety Co-ordinator	01752 553497 MOD 53497
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DML Health, Safety & Environment Manager (DML (HSEM))	01752 324307 93765 4307
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### **SECTION 4: EMERGENCY PROCEDURES ASHORE:**

4.1 In the event of an emergency, assistance can be summoned in the Naval Base by telephoning **2222** (BT/ mobile phone by calling 01752 552222) and giving location and postcode **PL2 2BG**. For Thanckes Oil Fuel Depot the internal number is 52222, post code **PL11 2PL**.

#### **MEDICAL**

4.2 Emergency first aid treatment may also be obtained at HMS DRAKE Royal Naval Health Centre (RNHC), Exmouth Block, Building B072. In general, however, treatment should be sought from the individual's GP or the NHS Accident and Emergency Department at Derriford Hospital, Plymouth.

## FIRE

4.3 Contractors must be in possession of a copy of, and comply with, the latest version of Standard Fire Precautions for Contractors engaged on Crown Works. This document is available from Her Majesty's Stationery Office (HMSO) ISBN 0 11 735094 8.

4.4 Action on arrival at the workplace:

- a. The contractor must report to the building controller, before work commences, who will advise him of the fire precautions relevant to the building, as well as any other hazards and relevant information.
- b. If the building is unoccupied, the contractor should contact the Western Area Fire Prevention Officer on 01752 554021 or MOD extension 54021.

4.5 Action to be taken on discovering a fire:

- a. Shout "FIRE, FIRE, FIRE"!! and activate the fire alarm system.
- b. Call the emergency services via the number given in para 4.1 above.
- c. Move quickly from the building (closing doors).
- d. Report to the building controller, MOD host or site representative at the designated muster point.
- e. Do not attempt to re-enter the building until authorised by the Senior Fire Officer.

4.6 All fires, even those of a minor nature, are to be reported to the MOD host or site representative. The verbal notification must be followed by written confirmation as soon as possible.

4.7 ALL escape routes and gangways, and access to fire fighting equipment, are to be kept clear at all times.

4.8 Over-the-side services. When work is to be undertaken aboard ship and contractors are responsible for the provision of over-the-side services such as welding, power supplies, compressed air etc., the ship's staff overseer is to be informed of the means and position of isolation of the services in the event of a fire.

## BOMB ALERT

4.9 All contractors must exercise constant vigilance and report anything suspicious to the MOD Police, Civilian Security Guard Service ashore, or a member of the ship's company when working afloat. This also applies to attacks using chemical, biological and radiological materials.

4.10 The bomb evacuation alarm will be notified by word of mouth, the words "BOMB ALARM!" "BOMB ALARM!" will precede the oral instruction.

4.11 ALL Personnel shall leave buildings or evacuate the area immediately. If afloat, instruction will be given by ship's broadcast or word-of-mouth. Contractors' will be directed towards the safest route and are to proceed to the assembly area as directed. No person is to return to the building, workplace or vessel until instructed to do so by the MOD representative (normally the Building Controller). All vehicles parked in the vicinity are to remain in situ unless MOD Police requests their removal.

## NUCLEAR ACCIDENTS

4.12 Contractors will be issued with a yellow Nuclear Accident Instructions Card. In the event of a Nuclear Accident, contractors must follow the instructions printed on the card. Naval Base nuclear alarms are tested at 1130 every Monday. This is an interrupted wailing note for 1 minute.

4.13 On hearing the alarm, all vehicular traffic is to STOP, with the exception of the emergency services and nuclear accident response organisations' vehicles. Personnel are to stop eating, drinking and smoking and make safe any machinery they are working on. They are to evacuate to their designated Shelter Station via the appropriate evacuation route as detailed on the guide to visitors and contractors issued with the contractors' pass from the Pass Office.

4.14 If, whilst working in the Submarine Refit Complex (Nuclear Licensed Site), a site accident broadcast is made, then the instructions contained in the broadcast are to be followed.

## ACCIDENTS/DISEASES/DANGEROUS OCCURRENCES REPORTING

4.15 All accidents or dangerous occurrences involving contractors' personnel whilst working in the Naval Base are to be recorded in the site accident book. The MOD host is to be informed in writing by the contractor's site representative of all accidents, who will then inform the DWAHSG and PSSC.

4.16 All serious injuries, dangerous occurrences and occupational diseases as laid down in the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR), are to be reported to the Health & Safety Executive in accordance with these Regulations. Clarification as to a reportable incident/occurrence etc can be obtained from the DWAHSG.

4.17 The procedures detailed in Section 12.17 of this guide are to be followed by contractors injured whilst working afloat.

## POLLUTION

4.18 Polluters are responsible for clean up. Precautions must be taken to reduce the risk of spillage, but if any pollution is caused or witnessed it must be reported to the MOD host or the HMS Drake Officer Of the Watch 01752 555220/555229 (NB extn: 65220/65229) and the DWAHSG 01752 555807 (NB extn: 65807) without delay.

## **SECTION 5: PURPOSE/SCOPE**

5.1 The purpose of this guide is to communicate hazard information to contractors on some of the key aspects of health and safety at work ashore and afloat, in the Naval Base and other areas outside the Base under NBC command.

5.2 Sections 10 of this guide is intended for use by all contractors and their sub-contractors undertaking work within the Naval Base Commander's line accountable departments. Non-accountable lodger units within the Naval Base and outstations may also use those sections of the guide. Sections 12 and 13 apply solely to visiting workers aboard ship. All other sections are common to both as appropriate.

## **SECTION 6: REFERENCES**

- 6.1 Health & Safety at Work etc. Act 1974, and all other Regulations made under this Act.
- 6.2 Code of Practice for the Safe System of Work for the Operation of Cranes within HM Naval Base Devonport and Outstations (NBQ 26). Tidal X berth (SFM BP 44).
- 6.3 Code of Practice for the Safe Operation and Maintenance for Mobile Cranes within HM Naval Base Devonport and Outstations.
- 6.4 Management Arrangements for Nuclear Safety Implicated Assets Under the Control of PGM(SM) Tidal X berth (SFM BP 43).
- 6.5 The documentation mentioned in paragraphs 6.2 and 6.3 above are available electronically on the Naval Base Intranet or in hardcopy on request from DIS, Building N215, HM Naval Base, Devonport, Plymouth, telephone 01752 **552472**.
- 6.6 NBQ 04, Management of NBC Contractors, is also available electronically or in hardcopy on request.
- 6.7 Copies of SFM BPs are available from WOMEA, Defiance Building, N019, HM Naval Base, Devonport, Plymouth, telephone 01752 **557407**.
- 6.8 Contractors are encouraged to adopt Environmental Management Systems; attention is drawn to BS8555, a guide to the phased implementation of an environmental management system including the use of environmental performance evaluation. It is recommended for those developing an EMS.
- 6.9 ISO14001 Environmental Management Systems – Requirements with Guidance for Use, is an internationally recognised specification for EMS and is the model adopted by the MoD.

## **SECTION 7: PREREQUISITES**

### **YOUNG PERSONS**

- 7.1 Work experience visits by school pupils to workplaces are increasingly common and their value is widely recognised. During Work Experience Placements, students should, under the supervision and instruction of a responsible person, carry out meaningful work to achieve this.
- 7.2 In general, Work Experience students under 16 years, are not permitted to work with machinery, or undertake hazardous tasks, as a result employers are required to assess risks to young people, before they start work and ensure they do not carry out work activities beyond their capabilities, taking into account their inexperience, lack of awareness of existing or potential risks, and immaturity.
- 7.3 Persons under the age of 18 are not permitted to drive, or operate any plant or vehicle, unless being trained or closely supervised by a competent person.

7.4 Due to the potentially hazardous environment, contractors are not permitted to bring children into workplaces within the Naval Base for example during school holidays, except on approved Work Experience Schemes where they must be escorted at all times.

### PETS

7.5 Contractors are not permitted to bring pets into the Naval Base under any circumstances.

## **SECTION 8: HEALTH & SAFETY**

8.1 High standards of health and safety are practised by MOD personnel working in the Naval Base and aboard ship. This in turn is required of all contractors and visiting workers undertaking work activities within NBC's estate.

8.2 HASAWA 74 (the Act) is the minimum standard of safe working practice that is expected within the Naval Base/MOD establishments. Compliance with the Act and all subordinate Regulations made under it is a mandatory requirement of any person working within the MOD estate.

8.3 In order that compliance with the Act is maintained, in particular the general duties set out in Section 3, and The Management of Health and Safety at Work Regulations 1999, the Contractor is to pass to the nominated MOD host details of all tasks within the Contract which may affect the health and safety of persons not in their employment (i.e. MOD employees or other contractors or visitors).

8.4 The Contractor shall ensure that all plant, equipment and/or substances brought on to MOD property as part of the Contract complies with, and is adequately controlled in accordance with current legislation.

8.5 In addition to the above, the Contractor shall comply with the following:

- a. The current MOD/Naval Base Safety Manual and Codes of Practice (copies can be obtained from DWAHSG Tel: 01752 555804 MOD 65804).
- b. Working in area's under the control of DML, contractors are to comply with DML arrangements and procedures. DML (HSEM) should be consulted on Health and Safety matters relating to DML's areas.

8.6 It is the Contractor's responsibility to be fully conversant with the content of these documents (where appropriate). The Contractor shall also ensure that all employees and sub-contractors are conversant and in compliance with the content of the document.

8.7 The Principal Contractor shall be responsible for ensuring that all documentation and information with any health and safety implications, which are relevant to the Contract, is passed to any sub-contractors employed by them.

## **SECTION 9: RESPONSIBILITIES**

9.1 It is the responsibility of all MOD organisations within the Base and/or their contracted agents who place contracts on their behalf, to ensure that this guide is available for all selected contractors (including MOD Agency staff). The principal contractor is to ensure that all employees and sub contractors employees have access to a copy of this guide.

9.2 The contractor is required to nominate a company representative at the place of work with overall responsibility to ensure that the contract is completed in accordance with the requirements of the HASAWA 74 and all relevant Statutory Provisions.

9.3 A competent MOD person or the contracted agent, the Estates Intelligent Customer, is responsible for arranging the works and the management of the contract on NBC's behalf. The EIC or the contracted agent will also ensure that the nominated contractor's works representative is made aware of all aspects of the contract, including safety information and emergency procedures, and will make regular visits to the worksite to ensure that a satisfactory level of health and safety is being maintained.

9.4 All contractors' employees are to be informed of their duties as required by the HASAWA 74 and the Management of Health & Safety at Work Regulations 1999 (MHSW Regs 99). These duties require employees to take reasonable care of their own safety and the safety of other persons, to co-operate with their employer to enable that duty to be carried out and not to intentionally or recklessly interfere with or misuse anything provided in the interests of health, safety or welfare.

9.5 All contractors, MOD and visiting workers ashore are to comply with the procedures laid down in the Management of NBC Contractors Procedure (NBQ04).

9.6 PSSC is the focal point between DIS Contracted Partners and MOD staff for all 4Cs enquiries.

## **SECTION 10: PROCEDURES**

### **ORGANISATION**

10.1 The Naval Base specialist officer's details and contact telephone numbers are detailed in Section 3 of this guide.

10.2 The Contract Department or their contracting agents are to use only approved competent contractors for work in the Naval Base. These contractors are to prove that they are able to discharge their primary responsibilities to safeguard their employees and other persons who may be affected by their undertaking.

10.3 Notification of risk is a two way process:

a. Naval Base to Contractor. The NBC department who raises the request for work to be carried out, or its representative will, through the contract sponsor, inform the contractor of hazards which may arise in the course of the work. Advice on this may be obtained from a Building or Infrastructure Controller or Wharf Master. Where the work is carried out onboard a vessel, the SFM project manager is the focal point and will ensure that the contractor is informed and any known hazards that may affect the contractor or his employees.

b. Contractor to Naval Base. Where the work of a contractor is liable to put MOD employees at risk, the contractor must advise the contract sponsor, Building or Infrastructure Controller or Wharf Master of these risks/hazards. The contractor is to inform the SFM Project Manager and ships' officer of the day where the work is carried out onboard that may affect the safety of others. Where the work is of a hazardous nature, the

contractor is to ensure that Safe Systems of Work are developed and implemented. This may involve the implementation of a Permit-to-Work system and written Method Statement.

- 10.4 Plant and equipment such as temporary access platforms, ladders, personal protective equipment, lifting equipment, internal transport vehicles and electrical equipment **will not** be loaned to contractors (or MOD or MOD Agency staff).
- 10.5 The Naval Base or its contract representative expects contractors to process, and make available for inspection, Method Statements if work involves activities relating to the list given in Section 10 Part C under the heading of *“The following specific hazards apply”*
- 10.6 To be effective the method statement must identify existing and potential risks/hazards relating to the work and the systems to be implemented to control those risks.
- 10.7 All written assessments are to be retained for the duration of the work and made available for inspection as necessary.
- 10.8 The DWAHSG will liaise with PSSC who are empowered to undertake random visits to areas where contractors are working. This is to gain assurance that contractors are fulfilling their health and safety obligations. If a member of the DWAHSG observes a dangerous work practice, the DWAHSG can stop the work. That person must inform the Principal Contractor (or representative) and the PSSC immediately. The work must not resume until authorised to do so.
- 10.9 In the event of a safety or environmental dispute between the client and the contractor, the DWAHSG and/or the PSSC are to be contacted for advice.
- 10.10 All contractors must receive a formal health and safety induction briefing by the DWAHSG. On successful completion of a short multi-choice test, the contractor will be issued with a certificate that should be taken to Camel’s Head Gate, where NBC personnel will issue the requisite pass. **This pass must be worn at all times when in the Naval Base.** Contractors may be challenged by NBC personnel and asked to show their security pass.
- 10.11 The contractor is to ensure that the site is secure from unauthorised access and take all necessary action to safeguard MOD employees and others from injury and crown property from damage. Any hazardous areas for which the contractor is responsible is to be adequately illuminated during the hours of darkness and relevant warning signs are to be provided.
- 10.12 Where joint access is required (MOD/DML and contractor), the contractor must liaise with the Host, Building Controller or Project Manager to ensure the exchange of hazard information has taken place at least on a daily basis.
- 10.13 Where work is carried out onboard Naval vessels, a T Card system will operate. This system is designed to ensure that all contractors have received a safety briefing prior to the commencement of the work and access onboard can be monitored should an emergency evacuation be required. Contractors are issued with a yellow card, which must be deposited in the T Card rack on entry to the vessel and removed on departure. See paragraph 12.5, 12.7 & 12.8 of this guide.

#### GENERAL NAVAL BASE HAZARDS

- 10.14 Contractors are required to comply with current NBC’s procedures regarding the avoidance of fire as detailed in Section 10E of this guide.

10.15 All signs and notices displayed, including road markings and specific instructions when entering the Base shall be obeyed. This also applies to parking. Contractors are required to observe all speed limits signposted throughout the Base. Parking is strictly monitored by NBC Traffic Wardens and the Ministry of Defence Police and vehicle access to the Naval Base will be stopped and parking permits withdrawn where speed restrictions are exceeded or parking in restricted areas are identified. The use of mobile phones whilst driving within the Naval Base will result in formal action being taken.

10.16 If the contractor's operations involve disruption to the flow of traffic within NBC's Estate, the MOD host is to be notified. MOD Police and Fire service will advise on traffic warning signs, diversions etc. which are to be implemented.

10.17 No obstruction must be caused where a ship's brow meets the Dockside or Wharf edge to a radius of 7.5 metres from the brow.

10.18 The contractor shall ensure that adequate arrangements are in place for the disposal of food waste or other matter that may attract pests. If infestation occurs he is to take such action as advised by the MOD Pest Control Officer.

10.19 A Tidal X-Berth Site Event Report is raised in the first instance of any event occurring within the boundary of the Authorised site (Orange Line) and recorded in the Tidal X-Berth Site Event database. Events may be reported to TXB FSG by any means (telephone 66084, 67122 or 68229, e-mail, verbally or by using form SFM QA 131E). Initial investigations of the event and actions taken are recorded in the Tidal X-Berth Site Event database and the event is allocated a unique TXB Site Event number. Out of normal working hours, all site events are to be recorded by the DNEO (07768 864814) and details passed to TXB FSG for action on the next working day.

10.20 Where the work involves abrasive or heat treatment to painted surfaces, and the presence of lead-based paint is suspected, an assessment should be undertaken and the contractor (MOD and MOD Agency staff) is to take samples for analysis prior to the commencement of work and if found to be positive, is to implement protective measures as appropriate in accordance with relevant legislative requirements.

10.21 Part of Devonport Royal Dockyard is licensed under the Nuclear Installations Act and as such additional controls over access are applied. The site boundary is marked by signs, blue lines and/or secure fencing. Any contractor wishing to bring material onto or across the licensed site, which could cause a major hazard, is to contact DML (Licensed Site Manager, 01752 325811). Any contractor who needs to bring radioactive material onto or across the licensed site is to contact the Naval Base Radiation Safety Department (Ext. 01752 557998 MOD 67998) prior to entry to the NBC Estate. Similarly parts of the NBC's Estate are nuclear 'Authorised' Facilities, these areas are 7 Wharf North, 8 Wharfs North and South and 9 Wharf. Any contractor wishing to enter or bring material onto or across these 'Facilities' is to contact the Wharfmaster (Ext. 01752 558229 MOD 68229).

THE FOLLOWING SPECIFIC HAZARDS APPLY:

**(Note: Where permits-to-work are applicable they must be signed before work starts.)**

### Asbestos

10.22 Prior to the commencement of work within existing buildings in the NBC Estate, the contract authority will obtain an asbestos survey report (for all buildings built pre. 1985 in accordance with current legislative requirements) via the DML Property Manager (WSMI Estate only), and Falcon in the FAC, to establish whether asbestos containing materials are present. If asbestos is found the contractor will be informed prior to the commencement of work so that safe systems of work can be implemented. The DML Property Manager is to ensure that both PSSC and the DWAHSG are advised of any changes to the asbestos register.

10.23 The prime responsibility for ensuring that work is carried out in accordance with the current regulations rests with the Principal Contractor. Assessments and Method Statements for asbestos work should be available on site for inspection by interested parties.

10.24 If a contractor suspects the presence of asbestos during the demolition or other work within a building which was previously considered asbestos-free, he must stop work immediately, isolate the area, inform the contract authority, who will arrange for a sample to be analysed. If the sample is found to contain asbestos, then a licensed contractor is to be appointed to remove the material.

### General Plant & Equipment

10.25 All plant and equipment used on site shall be of sound construction (and have a certificate of compliance), in good working order, adequately guarded and maintained in accordance with the relevant legislative requirements. Under no circumstances shall unguarded machinery be operated. Mobile plant, when stationary, is to be secured by wheel brakes or chocks, ignition key removed and environmental contamination resulting from oil or fuel leakages is to be prevented.

### Excavations

10.26 The contractor is to adhere to the provisions of the current Regulations, with particular regard to shoring, use of materials in relation to the statutory depth requirements, the regular inspection and examination of the works and completion of Form 91 where appropriate. Before the commencement of excavations or earthworks, the contractor is to be in possession of a Site Clearance Certificate, and is to ensure that services in the vicinity of the work have been isolated to avoid injury to personnel or disruption of services.

### Electrical Work

10.27 Only “competent” authorised persons are to carry out work of an electrical nature. Where a permit-to-work system is required, a plan must be implemented to control any risk.

### Hotwork

10.28 Contractors are to ensure that all necessary precautions are put into operation where hot work processes are required under the contract. These include the removal of combustible material and the provision of adequate serviceable fire fighting equipment. Where an electric arc welding process is employed, adequate screening must be positioned to prevent exposure to ultraviolet radiation. If this is not practical, personnel must be prevented from approaching the arc-welding source by use of physical barriers.

### Scaffolding & Scaffold Towers

10.29 Scaffolding is only to be erected, altered, adapted or changed by persons competent and authorised to do so. All scaffolding and access equipment is to be designed, constructed, erected, used and maintained in accordance with the current Regulations, a ScaffTag must be affixed to the structure and where appropriate, the manufacturer's instructions complied with. The use of makeshift platforms is strictly forbidden. Scaffolding **must be** inspected by a competent person prior to use and at least every 7 days or before use after inclement weather, damage or alteration and the details recorded on form F91 Section A and appropriate safety signs displayed. All personnel working on scaffolds are to wear hard hats and all other appropriate PPE.

### Lifting Appliances & Lifting Gear (Cranes, Hoists, Winches, Jacks Etc.)

10.30 All lifting equipment used on NBC's Estate by contractors must conform to the current legislative requirements.

### Cranage

10.31 Crane operations require the implementation of safe systems of work, and all lifting appliances should be under the control of a competent person who must be in date with the requisite training. Strict supervisory control in the use of cranes must be exercised at all times.

10.32 Contractors are to ensure that the safe operation and use of mobile cranes used or hired in by them, conforms to the relevant legislation, Naval Base safety procedures, Safe Systems of Work and Codes of Practice.

10.33 The Project Manager controlling the activity of a contractor has the responsibility to ensure that all crane operations in the main dockyard are co-ordinated through the DML Helpdesk 01752 324444. The contractor shall provide evidence to the DML Crane Department, Telephone Extension 01752 326222, that he is a suitably qualified appointed person and is able to conduct the lift in accordance with legislation, Safe System of Work, Code of Practice and other relevant procedures.

### Roofwork

10.34 Contractors working on roofs on the NBC Estate are to contact the building controller prior to the start of the work and will be expected to comply with relevant legislation, Safe systems of Work and Codes of Practice etc.

### Explosives & Cartridge Operated Tools

10.35 Prior written permission is to be obtained from the host or his agent prior to explosives and cartridge-operated tools (e.g. Hilti Guns, RAMSET Power Tools) being brought into and used in the Naval Base. Project Sponsors are to contact Devonport Explosives Safety Group Tel. 01752 555177 MOD 65177 or 01752 555188 MOD 65188 for further information and Naval Base approval. Explosives are not to be used to aid demolition without prior agreement.

### Paint Spraying Or Other Processes

10.36 Before carrying out processes involving brush painting, paint spraying or processes which produce hazardous substances, the contractor should complete COSHH assessments and identify the control measures to be implemented.

## Demolition

10.37 Prior to the commencement of any demolition work within the NBC Estate, the host will obtain an asbestos survey report (for all buildings built pre-1985 in accordance with Control of Asbestos at Work Reg. 2002) via the DML Property Manager, or Falcon in the FAC to establish whether asbestos-bearing materials are present. A type 3 survey must be undertaken by the contractor prior to any demolition work commencing. In addition to a copy of the survey being sent to the PSSC, additional copies of the survey must also be sent to the address given below:

Fleet Accommodation Centre  
Mr Liam Cox  
Business Process Manager  
Building B025  
FAC

Naval Base  
Mr John Robinson  
DML Estates Support manager  
Building N215

## Noise

10.38 If contractors' work is likely to produce high levels of noise within the NBC Estate, the host is to be informed prior to the commencement of work. Control measures are to be agreed and implemented to avoid hearing damage to site personnel and adjacent Naval Base employees.

10.39 At various times throughout the day and including silent hours, occasions may arise when military training exercises are in progress within the Naval Base and vessels. These exercises may involve the use of thunderflashes and blank ammunition, which can create impulse noise hazard, smoke and startle effect to personnel within the training area. The exercises normally take place at No 1 jetty and 3, 5 and 6 wharves, but may involve other areas within the Base. All contractors should check with their host whether exercises are in progress. Prior to entry into the exercise area, permission should be obtained from a member of the on-site FOST staff.

## Confined Spaces

10.40 A definition of a “**confined space**” is given in The Confined Spaces Regulations 1997.

10.41 A confined space is one which is substantially (though not always entirely) enclosed and, where there is a reasonably foreseeable risk of serious injury from hazardous substances or conditions within the space or nearby.

10.42 If there is no other reasonably practicable way for the work to be undertaken except by entering the confined space, then the risks involved need to be assessed and controlled. Air testing shall be carried out before entry into any confined space; certification is for a maximum of twenty-four hours.

10.43 Where confined space entry is required, the rules and procedures laid down by the relevant authority will apply e.g.

- a. In areas under the control of DML, the visiting workers procedures will be examined. Advice is available from the DML Property Manager, Project Manager or H&S department.

- b. Where confined spaces entry takes place in 'Fleet Time' vessels, the vessel's own procedures for confined spaces entry will operate.
- c. In areas under the direct control of Falcon (the FAC), the companies own procedures are to be followed.
- d. Confined spaces entry on TXB are covered by BP36.

10.44 The Partner (DML for the Naval Base; FALCON for the FAC) and their contractors are to ensure that the creation of confined spaces is avoided where possible at the design stage of new or modified building works. Where confined spaces are created during the design and construction stage of building projects and plant, consideration should be given to the size of openings to ensure safe access and egress is provided.

### Diving

10.45 Overall responsibility for the safety of the diving project rests with the diving contractor as required by legislation. This includes ensuring that a suitable and sufficient risk assessment and diving project plan is prepared. Before any diving operations can take place on site, formal permission must be obtained from the Queen's Harbour Master who is to be kept informed of changing events throughout the dive. Naval Base hazards to be considered may include:

- Basin trials
- Penstock operations
- Ship movements
- Tidal and weather conditions
- Sonar operations
- Low visibility (surface)
- Poor visibility (underwater)
- Seabed conditions
- Snagging
- Ordnance
- Polluted seawater
- Radiological hazards
- System pumping and discharge on vessels
- Dockside activities, i.e. crange, scaffolding
- Other vessel movements, i.e. pleasure craft and commercial vessels
- Underwater utilities, i.e. power, fuel, telephones, outfalls, sewage discharge

10.46 Client organisation duty holders must identify the job specific hazards and inform the diving contractor accordingly. In turn the diving contractor must reflect the hazards in the dive plan risk assessment.

10.47 All diving accidents/incidents that occur in the Naval Base or DML controlled areas are to be reported immediately to the DWAHSG.

10.48 All enquiries regarding the hazards identified above or associated with diving in the Naval Base are to be addressed to DWAHSG.

THE FOLLOWING GENERAL ARRANGEMENTS APPLY:

### Welfare

10.49 Facilities provided by the contractor should be to a standard, which complies with current Regulations. Where contractors are permitted to use Naval Base welfare facilities, they are to be left clean and in a safe condition.

### Housekeeping

10.50 Throughout the contract, the contractor is to ensure that the site or workplace is kept clean and tidy. On completion of the contract, he must ensure that all tools, equipment, stores and waste material are removed from site as soon as practicable provided they are not MOD property. In the event of an unavoidable delay, a designated "safe area" is to be arranged with the contract host.

### Disposal of Arisings

10.51 Contractors are to arrange appropriate and timely removal from the Base of all arisings generated during the contract. They are not to deposit any material in Naval Base skips or waste containers, unless included as part of the contract. Disposal is to be documented and is to be removed to an authorised disposal site.

### FIRE PREVENTION

10.52 The following are to be considered as broad guidance on the fire precautions to be adopted by contractors when working within the Naval Base. More detailed requirements may be included within the tender documentation issued.

10.53 Contractors employed in certain areas of the Naval Base are required to satisfy the requirements of the relevant legislation or NBCGO's Supplement No. 1 Fire Precautions for Ships under Refit or Repair. In all cases, however, initial contact should be made with the WAFPO, Building N215, telephone 01752 501752/554021 MOD 54021.

10.54 It is the responsibility of the contractor to ensure that those sub-contractors in his charge are made familiar with any requirements made of them as part of the terms of the contract.

10.55 During the course of the works, contractors may be visited by Officers of the Defence Fire and Rescue Service and the DML Fire Officer and other MOD officers in DML controlled areas. Fire Service Officers should be afforded every courtesy and will offer fire safety advice on request.

10.56 A fire originating on the contractor's site may put at risk personnel and property within or adjacent to the boundaries of the site works. Similarly, in occupied buildings, staff and visitors in other parts of the building may be in danger from a fire originating within the contractor's site. Within the Naval Base there are a large number of historic buildings, which are of architectural importance. These buildings are virtually irreplaceable and call for the most diligent fire precautions. Other buildings may contain valuable installations or be used for hazardous operations, which also require special consideration. Thus, the contractor should be aware that he may be obliged by legislation to obtain a fire certificate for buildings on his charge.

10.57 Where a contractor is required to carry out a "Hot Work" process as part of the contract the guidance given in para 10.28 is to be applied. An application is also to be made in advance for a "Hot Work Permit" through the contract host. In some cases, the host may also require that a competent

person is delegated, to act as a fire sentry, with a fire extinguisher or hose-reel whilst the work is in progress. The contractor must provide adequate and serviceable fire fighting equipment.

10.58 Combustible refuse, e.g. shavings, packing material etc., are to be collected at least once a day and removed to a safe place. Areas where flame or spark producing apparatus have been used are to be inspected by the contractor at meal times and at the cessation of work, to ensure that no conditions exist which might lead to an outbreak of fire.

10.59 Building materials, which are combustible or are packed with easily ignitable materials, are to be securely kept with the correct signage "NO SMOKING".

10.60 All relevant legislative requirements are to be complied with, together with HSE Guidance Note HSG 51. Guidance is also given in BR 8647: Navy Department Regulations for Fire Prevention and Protection. COSHH assessments and notification of the work should be forwarded to the DWAHSG for consideration.

10.61 All flammable liquids are to be stored in a safe and secure manner so as to reduce the risk of fire. Flammable liquids stored in containers (i.e. locker or building) are to be limited to a maximum of 200 litres.

10.62 Boilers for tar or other bituminous materials are to be sited in a safe place at least 6 metres clear of any combustible materials. In the case of the Naval Base, placing tar boilers on flat roofs is strictly forbidden.

10.63 Machinery relying on an internal combustion engine for its power source is to be sited in a well-ventilated position with the exhaust well clear of combustible materials. Private vehicles are not permitted to be parked in large buildings, stores or hangars.

10.64 Temporary electrical services are to be installed in accordance with BSCP 1017: "Distribution of Electricity on Construction and Building Sites". Cables are to be carefully routed and protected to avoid damage and are to be maintained in good condition.

10.65 Where the contractor will be working within the boundaries of an occupied or partly occupied building, he is to consult the contract host with regard to local fire precautions.

10.66 Smoking is prohibited in areas where there is a danger of fire spreading, particularly in stores containing combustible materials. "NO SMOKING" signs are to be displayed by the contractor for the benefit of his employees. In designated smoking areas, the contractor is to provide receptacles for the safe disposal of smoking materials. Smoking is prohibited in all warehouses and fuel facilities and DML controlled buildings within the Naval Base.

10.67 Suitable risk assessments must be carried out in accordance with the relevant legislative requirements before entering any potential explosive atmosphere. This includes the need to select suitable equipment.

## RADIATION PROCEDURES

10.68 Before contractors bring any sources of Ionising Radiation onto the Naval Base site, the Naval Base Radiation Protection Group (NBRPG) is to be consulted. NBRPG must be assured that contractors' operations will not endanger Naval Base personnel.

10.69 Persons working with Ionising Radiation within the Naval Base are to comply with the provisions of the Ionising Radiation Regulations 1999 and the Radioactive Substances Act 1993.

10.70 Contractors who will be required to work in radiologically controlled areas must either be Classified Persons or must work under an appropriate Written System of Work. This work must be agreed between the Naval Base Radiation Protection Group and the contractor (MOD and MOD Agency staff) before commencement of the work. Classified Persons must comply with the provisions of the Regulations.

10.71 Contractors must not pass any barriers, which are posted with radiological warning, notices unless authorised to do so by the Radiation Protection Supervisor for the area.

## NUCLEAR RELATED WORK

10.72 If the work has direct or indirect nuclear implications, a Procedural Authorisation Group (PAG) procedure will be provided which must be complied with in all respects.

## ENVIRONMENTAL PROCEDURES

10.73 The Naval Base Commander is committed to environmental protection and all contractors are encouraged to adopt the principles of references 6.8 and 6.9.

10.74 Any operations which are likely to result in discharges to the environment must be agreed with the contract host and the DWAHSG Senior Safety & Environmental Protection Officer (2), Building B149, telephone 01752 555112 MOD 65112, before commencement of work. The SSEPO2 is a specialist officer who will provide advice on any environmental matters, which may affect contractor operations when working in the Base or afloat.

10.75 The contractor must also obtain authorisations and any necessary permits or licences, which should be made available to the contract host and the DWAHSG before commencement of work.

10.76 Where any activity with a potential to cause a pollution incident has been identified prevention measures must be implemented which satisfy the contract host and the SSEPO2 before commencement of work. In the event of an accidental pollution, or witnessing a pollution, this should be reported in accordance with the details in para 4.18; and if involving a health and safety risk the procedures in paras 4.15 to 4.17 are also to be followed.

10.77 All contractors and their sub-contractors and visitors are requested to acquaint themselves with NBC's Policy on the economical use of energy and water and to use these resources sparingly. Any water leaks or instances of poor energy efficiency should be reported to SSEPO2. Waste should be minimised where possible and recycled, where facilities exist permission is to be obtained for these facilities to be used.

10.78 A number of Naval Base buildings and other structures are listed because of their heritage value. A number of nationally important plant species are also to be found growing within the Naval Base together with a number of pest species, e.g. Japanese Knotweed and Ragwort. In order that protected structures and plants may be safeguarded and pest species are eradicated, all are requested to comply with relevant signs and to report any concerns to SSEPO2.

## **SECTION 11: SPECIAL EQUIPMENT**

11.1 Contractors must provide all necessary protective equipment in line with legislative requirements. Where there is a specified risk of injury, or where indicated by mandatory warning signs, suitable PPE will be worn as indicated in risk assessments. All persons on the site or afloat are to wear the appropriate safety equipment for the task.

11.2 The wearing of hard hats is mandatory in a number of Naval Base, DML and Falcon controlled areas on the site.

**SECTION 12: HEALTH & SAFETY AT WORK**  
**A GUIDE FOR CONTRACTORS WORKING AFLOAT**

12.1 Sections 12 and 13 of this guide provide more specific guidance that applies to contract work carried out onboard MOD vessels and are to apply once Contractors set foot on the deck of the vessel. This guide is intended to ensure that all Contractors are made aware of the hazards they may encounter whilst working onboard HM Ships, and their duties and procedures that must be followed during the period of the contract.

12.2 These sections do not replace any requirements made of the contractor within the preceding sections.

12.3 The Health & Safety at Work etc. Act 1974 and the Occupiers Liability Act 1984 place a duty of care on Commanding Officers (CO) and Contractors, not only to protect the health, safety and welfare of their own employees, but all other personnel who may be affected by their work. Effectively:

- a. The CO's duty extends to all non-ship staff who are authorised to work onboard, with particular attention being paid to young or inexperienced personnel.
- b. Where contracted personnel are employed they are to comply with the terms and conditions of their contract, follow ships procedures and any directions given by ships staff, work safely within the confines of the Health and Safety at Work etc. Act 1974 and all relevant regulations made under the Act. Contractors working on ships, which are under the control of DML, are to comply with DML arrangements and procedures in place.
- c. Other non-ship personnel, who are authorised to work onboard, must provide ship's staff and / or DML as appropriate, with all relevant safety information regarding any hazards created by their work and this is to include the results of any Risk Assessments.

12.4 MOD personnel with responsibilities for the management of ship's staff, non-ship staff and contractors must ensure a safe place of work exists and provide relevant safety information to each other, as appropriate. The need for effective communication and co-operation between contractors and the MOD staff is essential. The following controls should be implemented:

- a. Contractors are to be notified of any local restrictions in force, or that are to be implemented as a requirement of the contract and which may affect their work or the work of others (e.g. Radhaz, Tag-out etc.).
- b. Any ship evolutions that may affect contractors (e.g. storing, fuelling, reactor plant state, diving, transmitting etc).
- c. Formal risk assessments may be required, particularly where the hazards are numerous or the risks are high. Each "side" must assess the risk of their activities to the other and advise them accordingly. (See also paragraphs 12.10 and 12.11 of this guide for further details).
- d. If required, permit-to-work (must be obtained from the OOD and is only valid for 24hrs) issue will be finalised prior to the commencement of work. The Ship/Contractor Information Form or Contractors Log as appropriate will also be read and signed at this time. (See paragraph 12.8 of this guide for details).

- e. Emergency procedure advice. Non-ship staff will be escorted to their place of work aboard the vessel, briefed on the locations of the nearest emergency equipment, given emergency advice and information including contact telephone numbers and shown escape routes. This is particularly important in the case of young or inexperienced personnel.

12.5 The Quarter Master on ships, Trot Sentry on submarines, controls the gangway access to the vessel. Their responsibilities include:

- a. Checking the identity of all persons boarding the vessel.
- b. Maintaining gangway security.
- c. Act as an initial liaison point between the contractor and the ships staff.
- d. Ensure that persons not in position of a valid T-Card receive a suitable safety brief and an escort is allocated.
- e. If the contractor is in possession of a valid T-card, ensure that his attention is drawn to the safety information board (SIB).

All contractors should be aware that gangway personnel may be armed.

12.6 A Safety Information Board (SIB) is situated in a prominent position at the gangway and indicates the hazards that are present on the vessel on a daily basis. It is the responsibility of the ship's Officer of the Day (OOD) and Gangway personnel to keep the SIB up to date. Any person creating a hazard is to ensure that the OOD/Gangway personnel is informed so that they can update the SIB or delete the information when it is no longer applicable.

12.7 On boarding the ship contractors must first check the SIB at the gangway. If they are unsure of any of the information they should ask the gangway personnel for clarification. T-cards should be left in the relevant section of the SIB or adjacent rack. There may be a requirement for further safety briefs to be given; these will be at the discretion of ship's staff or DML as appropriate. Prior to starting work for the first time contract personnel should report to the ships relevant section head or Officer of the Day (OOD) for a local safety and work brief, **work must not commence without first receiving a safety brief**. If in doubt about safety related matters, procedures or work on board ship, **ASK THE SECTION HEAD OR OOD**.

12.8 Control procedures. The routine for controlling Contractors onboard is as follows:

- a. The Quarter Master on surface ships and the Trot Sentry on submarines will confirm the identity of the Contractor/visitor and ensure that a valid T card is inserted in the SIB and issue a boarding pass.
- b. Contractors will be invited to read the information displayed on the SIB.
- c. Contact will need to be made with the vessel's Liaison Officer /OOD or nominated ship's staff representative.
- d. Where the vessel is a submarine under the command of COMDEVFLOT S/M, the Contractor will be required to sign the Contractors' Log, which is held in the Control Room.
- e. If required 'T' cards can be arranged by DWAHSG.

12.9 The Ship/Contractor Information Form (surface ships) will be raised by the section Senior Rate aboard ship when the Contractor initially arrives onboard to carry out the work in that section. The supervisor or senior person present from the Contractor will be requested to sign the form once he has read and understood the contents. In submarines, the Contractor is to sign the Contractors' Log held in the vessel's Control Room. That person should then relay the information to all other employees of the company and sub-contractors as appropriate. On surface ships, the ship's section Senior Rate will also sign the form after ensuring that the ship's responsibilities have been fulfilled. A copy is to be retained by the Contractor and the ship will hold the original for the duration of the contract. The form highlights the minimum health and safety requirements that all Contractors are to abide by when working on MOD vessels. In addition, all Contractors are to comply with the health and safety requirements appropriate to the contract. Any health and safety concerns regarding the contract should be raised initially through the Contract Liaison Officer.

12.10 Ship's or authorised MOD representatives (MOD host) will monitor the progress of work being undertaken by Contractors to ensure that agreed safe systems of work and any health and safety problems which arise are resolved promptly. A Contract Liaison Officer or Overseer is also appointed to oversee individual contracts. He is responsible for the satisfactory completion of all civilian contracts and may be used by the ship as a point of contact in the event of any particular health and safety problems involving the work.

12.11 The ship's staff representative/overseer shall satisfy themselves, by examination of relevant COSHH and Risk Assessments that the work to be undertaken by the Contractor will not present a hazard to either the Contractor or others who may be affected by their work. On submarines all materials or substances that will be used by Contractors are to be checked against BR 1326A, Materials Toxicity Regulations, to ensure clearance for use. The DWAHSG may be contacted for further advice.

12.12 Where hazards are identified the appropriate control measures as detailed on the Assessments are to be in place.

12.13 Where Contractors are likely to be working on systems under the control of ship's staff, the following guidance is to be followed:

- a. Ship's staff will establish and administer a rip-out boundary i.a.w. Rip-out procedure.
- b. Ship's staff will ensure the removal of stored energy within the boundary (e.g. depressurisation of the system or racking out of circuit breaker).
- c. A ship's staff overseer of suitable experience and qualification will be nominated to provide intermittent supervision, advice and assistance throughout the work/repair phase.
- d. Where the Contractor is responsible for conducting the re-commissioning or testing of a system, they will be continuously supervised by an appropriate member of ship's staff.
- e. The removal of the rip-out and returning of the system to a recognised normal boundary remains the responsibility of ship's staff.

12.14 Contractors are to ensure that equipments and systems on which they plan to work have been made safe using Tag Out/Rip Out procedure. **The administration of both systems is a ship's**

**staff responsibility.** Once the Tag Out/Rip Out procedure has been completed, the contractor should confirm using a suitable test procedure that the equipment/system is safe, prior to commencing work.

12.15 Action to restore supplies is to be initiated by the same person, who isolated the supply or, where this is not practical, by the person to whom the responsibility has been explicitly transferred. A thorough safety check of the equipment is to be carried out before supplies are restored and tag out labels removed.

12.16 On completion of the work, or at the end of the working day, Contractors are to dispose of all rubbish and arisings and report to their point of contact from the ship's company and sign out in the Contractors Log. On completion of work it is the responsibility of the contractor to inform the OOD that aloft work is complete and the PTW can be cancelled (if applicable). On departure from the vessel, Contractors are to revisit the SIB, surrender their boarding pass and remove their T card.

12.17 The Contractor is to report all incidents/accidents to the Officer of the Day (OOD) and record details in the vessel's accident book. Should any incident occur involving personal injury or damage to equipment during the period of the contract, the ship will retain the Permit to Work and Information Form until all subsequent investigations are complete. The reporting of incidents/accidents involving Contractors' employees and which are reportable to the HSE are the responsibility of the Contractor. Details of the accident must also be reported to the DWAHSG by the quickest means.

### **SECTION 13: GUIDANCE FOR CONTRACTORS ON HAZARDS ASSOCIATED WITH WORKING AFLOAT**

13.1 This guidance is intended to ensure that all Contractors are made aware of the general hazards they may encounter whilst working onboard HM Ships. Specific local hazards will be briefed on arrival.

13.2 The following systems may be present onboard ship:

- a. High pressure (4000 psi) and reduced air pressure supplies.
- b. Hydraulic oil (3000 psi and 2500 psi) systems.
- c. Diesel fuel and Avcat (Aviation fuel).
- d. Weapons and pyrotechnics in magazines and lockers unless otherwise marked.  
**Smoking is not allowed in these areas.**
- e. Electrical systems (up to 600V AC and up to 750V DC). Higher voltages exist in Weapons Systems and other electronic equipment; warning notices are normally displayed.
- f. Salt water systems up to 120 psi.
- g. Chilled water systems up to 40 psi.
- h. Fresh water systems up to 30 psi.
- i. Steam systems up to 550 psi.

**NB: Hazards exist in the above systems if tampered with, or operated without, authorisation.**

13.3 Certain machinery compartments and engine modules have inert gas (Halon, CO<sub>2</sub>) drenching systems fitted. An audible alarm and strobe warning light is initiated prior to system operation, if these operate, either accidentally or otherwise, the compartment must be vacated immediately. Engine modules fitted with gas drench systems are not to be entered without permission of the section head, who will also ensure that the gas drench system is inhibited (made safe) prior to entry. Any work on these systems must be carried out under a Permit to Work / Safe System of Work.

13.4 Some ships and all submarines have a “low reserve of buoyancy” which means that excessive ingress of water could lead to instability of the vessel. Strict control is exercised in all ships over the number of hatches and watertight bulkhead doors that may be left open at any time.

- a. **DO** report any obvious signs of flooding or unexpected signs of water to the nearest member of the ship’s company.
- b. **DO NOT** open, or leave open any hatch found shut, without the permission of the Officer of the Day (OOD) or his representative.
- c. **DO NOT** pass any leads or hoses through a hatch without permission from ship’s HQ1 or the Officer of the Day (OOD) on submarines.

13.5 **Smoking is only allowed in designated areas, usually on the upper deck only.** If in doubt ask a member of the ship’s company. **Smoking is not allowed in or near any magazines.** In addition, a strict no smoking rule applies in all vessels and buildings controlled by, or the responsibility of DML, the main Dockyard Contractor.

13.6 A fire onboard a ship or submarine may quickly fill many compartments with smoke. Fire fighting equipment is placed throughout the ship. Emergency Life Saving Breathing Apparatus (ELSA) is situated around the ship and submarines to assist in emergency escape. A warning of any emergency will be given over the main broadcast. In the event of discovering a fire:

- a. Raise the alarm by shouting “Fire! Fire! Fire.” Show a member of the ship’s company the location of the fire and vacate the area. The person discovering the fire is to make their self-known to the gangway staff and remain with them and possibly provide vital information to the Local Area Fire Brigade and the fire fighting effort generally.
- b. Other personnel should evacuate the area as quickly as possible by the nearest exit collecting your T-card as you go. Ships staff checking T cards on the SIB will carry out a check of all personnel. The nearest point of exit to the upper deck or casing is indicated by photo luminescent “ESCAPE” signs and directional “ARROWS”. Follow these using the assistance of the ship’s company. **DO NOT RUN OR PANIC.**
- c. When at jetty, report to Ships Staff co-ordinator for checking off prior to leaving the scene or muster

13.7 Many hazards exist which could be considered a physical hazard, these include:

- a. Steep or temporary ladders, temporary gangways, walkways and temporary guardrails. Guardrails are for fall prevention and are not to be leaned against.

- b. Radiation emissions associated with radars, communication equipment and lasers can present a significant hazard to personnel. Where a radiation hazard exists, warning signs are posted and hazard areas for some systems are marked on decks with a thick yellow line. Unauthorised entry into these areas is prohibited except with the permission of the OOD (Officer of the Day).
- c. If personnel need to proceed aloft on a ship, enter the fin of a submarine or conduct diving operations, the Officer of the Day must first be contacted to enable the SHIPHAZ or TAG OUT FOR DIVERS procedure to be instigated.
- d. Moving structures, e.g. gun mountings, launchers, lifts, cranes, boats and food hoists are hazardous areas and are designated by yellow and black lines. Unauthorised entry into these areas is prohibited.
- e. Noise levels in some compartments are high and require ear defenders to be worn. Where there is a noise hazard, the area will be classified as an “Ear Protection Zone” and warning signs are posted. Some HP air compressors discharge high-pressure air at unspecified times and are a particular hazard.
- f. Manhole covers; deck plates, ladders, guardrails and tank lids may be removed in some areas. Although areas should be roped off and adequate warnings posted, extreme caution should be taken when moving through the ship or submarine.

13.8 The following general comments also apply:

- a. If you hear any “Emergency Broadcast” or the intermittent single tone emergency alarm, cease work immediately and make safe all work equipment. Exit the ship or submarine via the quickest and safety available route.
- b. Do not enter machinery spaces without first informing the ship’s Machinery Control Room/Technical Officer or the submarine Manoeuvring Room of your intentions. Do not enter the ship’s weapons compartments without first informing the ship’s Control Centre/Technical Office of your intention.
- c. Read the contents of the Safety Information Board at the gangway or submarine Main Access Hatch and ensure that the supervisor or person in charge receives an initial safety brief from ship section personnel before starting work. The brief should include any particular hazards that may be found in your work area. The supervisor should then pass this information to his employees.
- d. You must inform ship’s section personnel of any hazards which may be created by your work. For example, the use of adhesives, solvents or other substances, which may pose a hazard – only certain types are allowed onboard. Copies of COSHH or Risk Assessments together with Hazard Data Sheets are to be presented to the ship section Senior Rating prior to work commencing. **CERTAIN SUBSTANCES AND MATERIALS ARE NOT ALLOWED ON SUBMARINES. CLEARANCE MUST ALWAYS BE SOUGHT FROM THE SECTION SENIOR RATE PRIOR TO USING ANY MATERIAL OR SUBSTANCE ONBOARD.** Hazards may also include welding, burning or other hot work.

13.9 No welding, burning or hot work is to take place without

permission of the ship's staff (see 14.10a below). Prior to the commencement of welding/hot work, the ship's welding log is to be completed and a competent hot work sentry nominated (this may be ships staff or contractor).

13.10 The following rules apply whenever hot work, including grinding operations, is carried out:

- a. Permission to do so is to be given by the Officer of the Day or Officer of The Watch or Duty ME Senior Rate (DMESR).
- b. At all times before commencing burning or cutting operations the adequacy of the ventilation is to be checked. In unventilated compartments portable fans or extractors are to be used.
- c. Pressurised systems (i.e. Hydraulic systems etc.) in the vicinity are to be de-pressurised prior to hot work this is ship's staff responsibility.
- d. The welding sentry and hot worker are to be briefed by ship's staff prior to the commencement of the work. The hot worker should also satisfy himself that suitable fire extinguishers have been provided and the sentry has suitable PPE. The welding or burning log must be correctly completed before and after such work. The Welding Log and Sentries Instructions are to be kept in the Control Room, SCC HQ1.

13.11 **No work in confined spaces** is to be undertaken without the permission of the ship's staff. Prior to commencing confined space work the contractor must have in place as a minimum:

- a. A job specific risk assessment.
- b. Arrangements for an emergency evacuation, this includes injured staff.
- c. A valid safe to breath/safe to burn certificate.
- d. Qualified first aiders on site.
- e. A competent person in charge of the confined space work.
- f. Equipment for measuring air quality or for the presence of gas in the space.
- g. An understanding of the task involved.
- h. An understanding of Legislative requirements.
- i. A safe system of work/method statement should be in place and available for inspection by ship's or projects staff.

13.12 The nuclear reactor onboard submarines are inherently safe. In the event of an accident, a broadcast will be made and the following procedures should be followed:

- a. Evacuate away from the reactor, i.e. either to the forward part of the submarine, fore ends, or the after part of the submarine.
- b. DO NOT attempt to go through the tunnel or across the reactor.
- c. Stay in the submarine until advised by a member of the ship's company.
- d. If working outside the submarine, move away from the area just aft of the fin.
- e. DO NOT attempt to cross the gangway if this means going towards the reactor compartment.

- f. If necessary, you will be evacuated from the bow or stern of the submarine by boat.

13.13 The above information is not exhaustive, therefore upon your arrival onboard it is possible that you will receive further instructions regarding additional local health and safety hazards. For your own safety, and the safety of others, these instructions should be followed at all times.

**Remember if in doubt about anything ASK.**

## **SECTION 14: SAFETY BRIEF FOR PERSONNEL WORKING ON THE TXB OR IN SUBMARINES BERTHED AT THE TXB IN DEVONPORT DOCKYARD**

### Introduction

14.1 Submarines are complex and potentially dangerous environments; failure to follow guidance or procedures will not only endanger your safety but also the safety of a significant number of other persons. This brief is to raise your awareness of the hazards and procedures you will encounter on submarines and also the hazards that can be encountered working on the Tidal X-Berth or in transit to a submarine.

14.2 All personnel who enter the Facility are to adhere to all site notices, comply with current Health & Safety legislation, and follow all instructions given by the Facility Operator or his nominated representative.

### Submarine Jetties

14.3 The Tidal X-Berths (TXB) (submarine jetties) at 7, 8 and 9 wharfs are designated as a nuclear site and as such are controlled more stringently. Control of access onto these berths is controlled as follows:

Occupied berths:	Wharfmaster / submarine Officer of the Day
Vacant berths:	Normal Working Hours Monday to Thursday 0800 – 1600 Friday 0800 – 1530 TXB Wharfmaster. Telephone extension 68229. Out of Working Hours and at weekends Control Engineer (Nuclear) (CE(N)). Telephone extension 65851.

14.4 No work is to be carried out on the above listed jetties without the express permission of the Facilities Support Group (FSG) / Wharfmaster. The berth risk assessment is available to all persons and is located in the Wharfmasters Office, adjacent to 9 wharf.

14.5 The control of access to the wharfside and submarines berthed at the Tidal X-Berths (7, 8 & 9 Wharves) is conducted by the use of colour coded 'T' Cards. Entry on to the TXB requires a separate 'T' Card to that required for access to submarines, and all staff/visitors/contractors should be in the possession of the appropriate 'T' Cards. Names should be clearly printed in the space provided on the 'T' Card and the instructions on the card noted and followed.

**ALL personnel entering the TXB must be in possession of a WHITE 'T' Card.**

14.6 The primary purpose of the 'T' Card is to demonstrate that the holder has received the required safety brief for the TXB. The secondary purpose of the 'T' Card is to provide a method of accounting for personnel in case of fire or other emergencies. It is important that MoD staff, visitors and contractors insert their white 'T' Card in the racks provided, every time they enter the TXB, and remove their white 'T' Card on departing the TXB. This will facilitate the mustering process to be conducted in the event of an emergency. White 'T' Cards will only be issued on completion of a suitable safety brief from their sponsors. Further to this requirement all MoD staff, DML and Contractors are required to present their respective coloured 'T' Card to the trot sentry if access to the submarine is required.

#### Safety Information Boards (SIBs)

14.7 In addition to the details given at para 12.6 above, an SIB is also sited at the access point to the TXB and indicates the hazards present on a daily basis. The White 'T' Card is to be placed in this SIB. It is the responsibility of the Wharfmaster to ensure the TXB SIB is kept current. A second SIB is maintained by the Upper Deck Trot (UDT) and is located at the main access gangway, it is the responsibility of the OOD of all submarines to ensure that is kept up to date.

14.8 Staff, visitors and contractors on arrival must read and understand both SIBs, if they are unsure of any of the information they should ask the Wharfmaster/Trot Sentry for clarification as appropriate.

#### Working on the Tidal X-Berth

14.9 Prior to starting work on the TXB all contract personnel are to report to the Wharfmaster to sign the TXB Contractors Log and receive a Health and Safety Brief. Work is not to commence without first receiving a safety brief.

14.10 All fittings, cabling and pipework on the jetties and all umbilicals connected to the submarine(s) are NUCLEAR SAFETY IMPLICATED. No equipment is to be placed on or near to any of these services and personnel are to keep clear of services at all times.

14.11 If in doubt about safety related matters, procedures or work on the TXB, ASK THE WHARFMASTER. It is expected that all personnel transiting the TXB to undertake work in submarine(s) have received the appropriate brief from their sponsor.

14.12 The following significant hazards are always present on the Tidal X-Berths:

SLIPS & TRIPS - Crane tracks and cableways, uneven surfaces, drain and manhole covers including open jetty edge service panels, cables and hoses laid along the jetty and wet ground due to rain water.

FALLS – Jetty edges present a fall from height over water, access to submarines and movement of pontoons also present falling hazards.

IMPACT – Crane and fork lift truck movements up and down the jetty.

CRANE OPS OVERHEAD – Falling loads, struck by moving loads, items falling off loads.

ELECTRICAL SUPPLIES – Distribution panels and shore supply boxes (risk of short circuits, arcing, overheating, excess current).

RADIATION HAZARD – Ionising from Nuclear Propulsion Plant, non-ionising from transmitters and radars.

HAZARDOUS STORES – Toxic, flammable, chemical etc stores left on jetty by submarines including pressurised gas cylinders.

NOISE – Contractors work, mobile compressors, etc.

TRAFFIC – Lorries, cars and fork lift trucks on jetty.

PIGEON DROPPINGS – Source of pathogenic organisms and disease that can be passed to humans i.e. salmonella.

LIGHTING – Extra care to be taken at night, especially on gangways.

EXPOSURE TO THE ELEMENTS – Wind, rain, cold, wind chill, heat and sunburn.

### Working onboard a Submarine

14.13 Prior to boarding the submarine all personnel are to check the Safety Information Board (SIB) situated at the embarking gangway. If you are unsure of any of the information, ask the UDT for clarification. Leave your boarding T Card with the UDT. There may be a requirement for a further safety brief to be given, this will be at the discretion of the submarine. Prior to starting the job for the first time personnel are to report to the submarine's relevant section head for a local safety and work brief. Work is not to commence without first receiving a safety brief. If in doubt about safety related matters, procedures or work on the SUBMARINE, CONTACT THEIR SPONSOR. It is expected that all personnel transiting the TXB to undertake work in submarine(s) have received the appropriate brief from their sponsor.

### Fire

14.14 Fire is a major hazard in all work places; this is particularly so on submarines, with enclosed compartments, large supplies of fuel oil and explosives. On discovering a fire raise the alarm by shouting "fire, fire, fire", tell a member of the ships company. Report to the Shut Down Senior Rate (SDSR) in Manoeuvring Room or the Lower Deck Trot (LDT) in the Control Room and proceed to the casing and inform the Upper Deck Trot (UDT). Stay with the UDT, as your information could be vital to the Officer of the Day and the fire brigade in fighting the fire.

On hearing a fire alarm (which could be verbal or over the main broadcast) make your equipment safe, evacuate the ship by the quickest route, avoiding the area of the fire." DO NOT RUN OR PANIC." Your nearest escape route to the casing is indicated by photo luminescent "ESCAPE" signs and directional "ARROWS". Collect your submarine boarding T card on the way off the ship to the designated muster point on the jetty. Inform the UDT of any one that is missing. Emergency Life Saving Breathing Apparatus (ELSA's) and fire fighting equipment is situated throughout the ship for escape purposes. FIRE FIGHTING AND BREATHING APPARATUS IS FOR USE IN AN EMERGENCY ONLY, AND IS NOT TO BE MOVED OR TAMPERED WITH. ANY CONTRACTOR FOUND MIS- USING THIS EQUIPMENT IN ANY WAY, WILL BE REMOVED FROM THE SHIP.

14.15 The likelihood of a fire starting can be greatly reduced by undertaking the following precautions:

Submarines are No Smoking zones, smoking is only allowed in designated areas. If in doubt ask a member of the ships company.

Do not leave toxic flammable substances such as paint, solvents, thinners etc unattended in open containers.

Work equipment power supply's are to be isolated when the equipment is not in use or liable to be left unattended. (All equipment taken onboard must be fit for purpose and in date for test).

At the end of the working day all flammable substances and rubbish is to be removed from the vessel.

All Hot Work Operations (i.e. welding, Gas burning, brazing, use of blow lamps, LPG burners, disk cutters and portable grinders) must be controlled. The Engineer Officer of the Day (EOOD)/Officer of the Day (OOD) must be informed before any hot work is commenced. The welding log usually kept in the submarine Control Room must be completed, at the start of work and on completion. A competent welding sentry must be present at all times during the hot work. Unless approved by the Marine Engineering Officer (MEO) gas bottles are not allowed within the ship. All gas bottles are to be isolated and the hoses removed to the jetty at the end of the working day. The hot worker should liase with ships staff to ensure that there is adequate ventilation within the area and that if necessary additional ventilation is provided for fume and unburnt gas removal.

### Systems

14.16 The systems listed in para 13.2 above and those listed below may be present on board vessels:

1. Lubricating oil systems and bulk storage.
2. Refrigerant gas systems.
3. CO2 fire suppression systems.
4. Nuclear Reactors and associated systems.
5. Electrical distribution systems (440V ac and 250V dc). Higher voltages exist in weapon and other electronic systems; warning notices are displayed on these equipments/compartments.
6. Weapons containing high explosives, rocket propellant, highly volatile fuels and pyrotechnics. These are contained in magazines, lockers or launchers, which are suitably marked.

**THE ABOVE SYSTEMS (including those in para 13.2) ARE NOT TO BE WORKED ON OR OPERATED IN ANY WAY WITH OUT PRIOR AUTHORISATION.**

14.17 Ships staff are the only people allowed to isolate or operate supplies and systems. If you are required to work on a system or an item of equipment it must first be made safe by using the Tag-Out System. A Tag-Out should be initiated via the section owning the system/equipment, they will remove, isolate, close, discharge or collapse the energy source. Once the system is made safe the top part of the Tag-Out tally will be affixed to the isolation point, the lower part of the tally will be placed at the master control point. Authority for ensuring that the system/equipment is made safe prior to the commencement of work is the responsibility of a Petty Officer or above. Their name, rank and signature are to appear on both parts of the Tag-Out form.

### Watertight Integrity

14.18 Watertight Integrity in submarines is paramount and strict controls are in place regarding the number of watertight doors and hatches that may be left open at any time. The guidelines below should be followed:

- Report any obvious signs of flooding or excessive water ingress to a member of the ship's company.
- Do not open or leave open any watertight doors or hatches found shut, without permission from the Officer of the Day or their representative.
- Do not pass any lead or hose through a door or hatch without permission of the Officer of the Day or their representative.
- All hoses and cables that pass through a watertight bulkhead must be fitted with a quick release coupling, this is primarily to maintain secondary containment and secondary to maintain watertight integrity.

### Non-Ionising Radiation Hazards (RADHAZ)

14.19 If persons are required to work aloft, in the vicinity of Radars or communication equipment they will be exposed to non-ionising radiation hazards. This could be directly hazardous to human health due to various undesirable effects such as localised heating and tissue damage. Where radiation hazards exist, warning signs are posted. Access is not allowed to any RADHAZ area without first contacting the Officer of the Day (OOD) and ensuring a RADHAZ procedure has been instigated. **FAILURE TO FOLLOW THIS PROCEDURE WILL DAMAGE YOUR HEALTH.** A person working aloft may also be exposed to hazards from unexpected noise from the ships sirens, electric shock from induced electric current induced by radio transmissions, and ventilation and diesel exhaust gases.

### Diving Operations

14.20 No diving operations are to take place without the written permission of the ship's Officer of the Day. No divers are to enter the water until the supervisor has copies of all completed permission to dive paperwork from the ship, this must include the permission to dive signal, the supervisor should also visually site that flag Alpha (blue and white) has been raised on the ship's mast. All Diving operations within the Dockyard are to follow the procedure laid out in:

- BP 43 Control of Diving Operations on the TXB Facility
- DML procedure FP08-44-000 Diving operations
- DML procedure FP08-23-000 Contract diving projects (prerequisites)
- DML procedure FP08-43-000 Emergency diving arrangements

14.21 Failure to follow this guidance or any instruction with regard to Diving given by the OOD may result in injury, removal of yourself and company from the dockyard and the possibility of legal action being taken.

### Confined Space Working

**A VALID RISK ASSESSMENT MUST BE IN FORCE BEFORE ANY CONFINED SPACE WORK IS COMMENCED**

14.22 If the work is to be carried out onboard the submarine, the Commanding Officer's Health and Safety Policy is to be adhered to.

14.23 If the work is to be carried out on the TXB and under the control of DML Line Management, then FP20-10-000 is to be adhered to.

14.24 If the work is to be carried out on the TXB and under the control of NBC Line Management, then NBQ12 is to be adhered to.

#### Reporting of Near Misses/Events whilst in attendance at the TXBs

14.25 If a contractor witnesses an event, or a near miss, which may give cause for concern, they are to report the occurrence to the TXB Wharfmaster, or a member of the FSG as soon as possible. A written account of the occurrence will be logged to enable an evaluation of the incident. This will provide feedback to enable the Facility Operator and FSG to implement changes to improve the work site conditions where appropriate.

#### Submarine hazards

14.26 In general access around the submarine can be restrictive, normally two exits open from the vessel. Ask for guidance from the ships company as to access and egress routes from the vessel. As the Royal Navy's fleet of submarines is nuclear powered, management of machinery systems, and moving of heavy loads throughout the submarine is closely controlled. No work is to commence without the permission of the person in charge of the section onboard. In the event of a nuclear incident onboard, follow directions given by the ships company. Do not leave the Naval Base but report to the designated shelter areas. Green arrows located throughout the base in accordance with the dockyard brief identify the routes to follow to these shelter areas.

#### General Hazards and Procedures

1. Do not enter machinery spaces without first contacting the LDT in the Control Room or the SDSR in the Manoeuvring Room.
2. If you have an accident, however small, report it to the ships Officer of the Day (OOD) or SFM Quality & Safety Manager on extension 67407.
3. Noise levels in some compartments can be very high, appropriate hearing protection is to be worn. Warning signs are posted in noise hazard areas.
4. If your system of work requires the use of Personal Protective Equipment (PPE), use it don't leave it in the toolbox.
5. If your work process requires the use of PPE as a precaution, ensure that other persons working in the vicinity are aware of the hazards and are taking equal precautions. **Remember PPE only protects the individual.**
6. Whenever you leave the work area ensure you leave it in a safe condition. Isolate or switch off supplies to equipment replace the lids on tins/containers of paints, solvents adhesives etc.
7. There are a large number of trip hazard throughout the ship, and these grow in a maintenance period i.e. power cables, hoses, hatch/door combings, eyebolts, bedplates etc. Be aware of the hazards in your work area and access egress route.
8. Do not use plastic tie raps to secure temporary hoses or cables, only use plastic covered wire.
9. If you hear any "emergency broadcast" or the ships alarm stop work, make your work equipment safe; proceed off the ship by the quickest safest route, collecting your boarding T-card on route.
10. No work is to take place in magazines without permission of the Weapons Engineering Officer (WEO) or their representative.
11. Anti-static footwear and anti-static precautions are to be followed when working in magazines, if in doubt ask.

12. All persons working adjacent to or over water where a fall could result are to be provided with and wear a lifejacket, safety harness (with a fall arrestor) or a lifeline.
13. The dockyard is a hard hat area, hard hats are to be worn within the yard or when working on the upper deck of the submarine.
14. Non-slip protective footwear is to be worn when working on ships and jetties.
15. You must inform ships staff of any hazards that may be created by your work, and have copies of any risk, COSHH or noise assessments ready for inspection by ships staff.
16. All persons working at a height where a fall could cause injury are to wear fall arresting equipment attached to a suitable anchor point, hard hats, non slip protective footwear and wear clothing suitable for the weather and time of year.
17. Following a number of serious injuries, including amputations when rings have been caught on hatches, doors or machinery, it is advised that rings are removed or securely covered up when working onboard ships.

### Summary

14.27 This list is by no means exhaustive but it does cover most of the key issues and hazards you may encounter. A warship is a potentially very dangerous place and your actions could not only affect your life it could seriously affect the life's of a large number of other people.

**DO NOT TAKE SHORT CUTS. FOLLOW PROCEDURES. DOUBLE CHECK ISOLATIONS. DO NOT ASSUME THEY HAVE BEEN DONE AND IF IN DOUBT ASK.**

### Further Information

1. MP 20 DML Health & Safety Requirements Manual
2. DML code of practice for project sub-contract & support services contractors  
FP20-01-000
3. DML Mandatory code of practice – Contractors, Sub-contractors and visitors  
FP20-20-000(1)
4. DML Confined Space Working – FP20-10-000
5. DEVNUSAFE, Devonport Nuclear Safety Orders.
6. FPN 167 Fleet Safety Health & Environment Manual, Chapter 4B, Contactors and Visitors – Submarines.

**The above information is available for clarification of working practices from your MOD Project Manager/Health and Safety office or via your company line management.**