



## HEALTH AND SAFETY MANAGEMENT SYSTEM

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### Diving Operations Procedure

#### 1.0 PURPOSE

To provide guidance to be followed when contracting and / or approving commercial diving operations within Forth Ports' waters and ensure compliance with the Diving at Work Regulations 1997, and appropriate codes of practice.

#### 2.0 SCOPE

In Scotland this procedure applies to all commercial diving operations in waters which fall under the jurisdiction of Forth Ports. In the Port of Tilbury this procedure applies to all commercial diving operations undertaken within the dock from the outer gate into the lock and dock area. Diving operations within the River Thames are managed by the Port of London Authority (PLA) and their procedures for diving permits must be followed.

#### 3.0 DEFINITIONS

Authorising person	The nominated responsible person within the <i>Contracting Company</i> requesting the dive services. This can be an employee of Forth Ports, or from a 3 <sup>rd</sup> party e.g., Principal Contractor, Vessel Master etc.
Contracting Company	The company who are requesting the services of the <i>Dive contractor</i> . This can be Forth Ports, or a 3 <sup>rd</sup> Party e.g., Principal Contractor, Consultant, Vessel Master etc.
Console Controller	The duty Console Controller based in the Leith Harbour Office.
Commercial Diving	A diving project conducted in support of civil engineering or marine related projects within United Kingdom territorial waters.
Assistant/Duty Harbour Master	Marine Asset Manager's representative at the Port of Tilbury. The Harbour Masters representatives in Forth Ports' Scottish Operations
Dive	Any operation where a diver for commercial purpose enters the water or any other liquid, or chamber in which they are subject to pressure greater than 100 millibars above atmospheric pressure, and to survive breathes air or other gas at a pressure greater than atmospheric pressure.
Dive contractor	The organisation undertaking the dive project with employed diving personnel. Any <i>Dive contractor</i> utilised for a diving operation directly by Forth Ports must be members of the Association of Diving Contractors.
Dive Permit	Authorisation given by Forth & Tay Navigation Service or the Marine Asset Manager (Tilbury) for commercial diving operations directly contracted by Forth Ports to be undertaken.
Dive project	The term used for the overall diving job, whether it lasts a few minutes or many months, it can be made up of one or more individual diving operations.
Diving project plan	The <i>Diving project plan</i> identifies each diving operation which makes up the diving project and the nature and size of any diving operation. Any identified diving operation shall be arranged so that it can be supervised safely by one person.
Dive Supervisor	A qualified member of the dive team who is appointed to supervise the diving operation.
FTNS	Forth and Tay Navigation Service.



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Marine Department (Lockside) Tilbury	The department which co-ordinates vessel movements at the Port of Tilbury.
Time Critical Circumstances	Diving requests outside of normal working hours where a timely response is required and the Responsible Marine Person is unavailable.

### 4.0 ROLES AND RESPONSIBILITIES

The *Dive contractor* shall ensure so far as reasonably practicable, that the diving project is planned, managed, and conducted in a manner which protects the health and safety of all persons involved.

The *Dive contractor* shall ensure that:

- suitable and sufficient risk assessments have been carried out with umbilical's used unless a reasonable reason is given ;
- the place from which the diving is to be carried out is suitable and safe;
- a suitable *Diving project plan* is prepared;
- an appropriately experienced and qualified *Dive supervisor* is appointed in writing, outlining the extent of their control;
- a suitable number of sufficiently qualified persons to complete the dive project in a safe and efficient manner have been allocated in accordance with the appropriate approved code of practice;
- adequate arrangements exist for first aid, medical treatment, emergencies and contingencies;
- where appropriate a suitable mobilisation and familiarisation programme is completed by all members of the dive team.
- Any *Dive contractor* utilised for a diving operation directly by Forth Ports must be a full member of the Association of Diving Contractors.
- All incidents, near misses and decompression illnesses must be reported to the Forth Ports' authorising person for Forth Ports contracted dives.

The Dive Supervisor is responsible for ensuring the diving operation is carried out in accordance with the dive plan, without risk to health and safety of all those taking part and others who may be affected.

The *Dive supervisor* shall ensure that:

- the operation they are supervising complies with the requirements of the *Approved Code of Practice for commercial diving projects inland / inshore: Diving at Work Regulations 1997*;
- satisfy themselves so far as is reasonably practicable that the dive site, water and weather conditions are suitable and that familiarisation dives are undertaken;
- the risk assessment(s) is still current on the day and during the dive, with umbilical devices used;
- the competency, fitness, and certification of those they will be supervising is adequate;
- they are aware of their area and level of responsibility, and who is responsible for any other relevant areas;
- they conduct a pre-dive briefing on the contents of the dive project plan;
- they conduct a pre-use inspection of any plant to be used during the dive, and ensure all possible hazards have been evaluated and record the checks, the dive supervisor should segregate an area for the dive team to operate within;
- they obtain permission to start the dive and ensure all relevant parties are aware of the dive starting; ,
- the diving operations records are maintained throughout the dive.
- The stand-by diver is dressed ready at all times;



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- An email is sent to [diving@forthports.co.uk](mailto:diving@forthports.co.uk) (Scottish Operations) or [diving@potll.co.uk](mailto:diving@potll.co.uk) (Tilbury) once the dive is concluded to permanently withdraw the permit

The *Contracting Company* is responsible for appointing a competent *Diving contractor* and ensuring their compliance with the Diving at Work Regulations 1997, associated Approved Codes of Practice, and the requirements of Forth Ports' diving procedure.

The *Contracting Company* and *Authorising person* shall, where relevant / appropriate:

- take reasonable steps to ensure that any diving contractor selected is capable of complying with relevant diving regulations;
- make available to the *Dive contractor* any other relevant risk assessments undertaken by other persons that could affect the safety of the dive team;
- provide facilities and reasonable support in an emergency to the *Dive supervisor* or Diving Contractor as defined in the dive project plan;
- consider any underwater or above water items of plant that may pose a hazard to the dive team e.g., Locks, sluices, water intakes, vessel associated hazards etc. Then advise the Diving Contractor of the identified plant (where the *Contracting Company* is not Forth Ports the Company should contact the relevant Marine Department);
- facilitate any relevant familiarisation programme required by the *Dive contractor*;
- ensure suitable control measures are in place such as completion of a Forth Ports Dive Permit or Permission to Dive form;
- ensure contact is maintained between the *Dive supervisor* and the relevant Marine Department for information regarding any changes that may affect the dive operation i.e. vessel movements in the harbour or river.
- Ensure the emergency response plan provided is suitable. Cooperate with the diving contractor to ensure the requirements of the plan are met;
- Where Forth Ports are the *Contracting Company* the nominated employee as *Authorising person* is responsible for the dive project and overseeing the Diving Contractors compliance with the Dive project, Forth Ports company procedures, including completion and signing the *Appointment of Divers Form*.

Where Forth Ports appoints a Principal Contractor who then appoints a *Dive contractor* the above information will be provided under the Construction (Design and Management) Regulations 2015 (CDM) as part of the pre-construction information.

The *Responsible Marine Person* is responsible for accepting the *Dive Permit* or *Permission to Dive* for all commercial diving operations in Forth Ports' waters in their area of responsibility; ensuring information required by the *Dive Permit* or *Permission to Dive* is received, including the requirement for any navigational exclusion zones required by the project and ensuring further identified hazards have been considered with control measures put in place (where necessary). The *Dive Permit* or *Permission to Dive* will be forwarded onto appropriate parties as identified on the permit.

*Assistant Harbour Master* is responsible for approving navigational clearance for all diving operations within Forth Ports' waters excluding the Port of Tilbury. Other duties required include:

- ensuring any navigational safety exclusion zones required for the dive project are established and maintained;
- ensuring communications with the *Dive supervisor* are established and maintained; and,
- ensure the *Console Controller* is made aware of any planned diving operations within the Port of Leith and forwarded any relevant documentation.
- monitor the diving email inbox outside of standard working hours for diving requests. In *Time Critical Circumstances* out with working hours, the Assistant Harbour Master can act as the Responsible Marine Person.



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The *Console Controller* within the Port of Leith is responsible for:

- reporting any navigational safety concerns within Leith Approach and Leith Locks to FTNS that could affect the dive project.
- monitoring flood water inside of the dock area and advise relevant parties if dive operations require suspension in order to reinstate equipment from an isolated state.

*Duty Harbour Master* (Tilbury) is responsible for accepting the *Dive Permit* or *Permission to Dive* for all commercial diving operations in the Port of Tilbury and ensuring information contained within the *Dive Permit* or *Permission to Dive* is implemented including:

- ensuring any navigational safety exclusion zones required for the dive project are established and maintained;
- ensuring communications with the *Dive supervisor* are established and maintained;
- the *Dive Permit* or *Permission to Dive* has been forwarded to any relevant parties.
- monitor the diving email inbox out with standard working hours for diving requests. In *Time Critical Circumstances* out with working hours, the *Duty Harbour Master* can act as the *Responsible Marine Person*

### Appointment of Divers Form and Dive Permit

- *Appointment of Divers Form and Dive Permit* and copies of documentation identified in Part 2 sections 1 – 14 are to be saved locally by the *Authorising Person* as part of the project folder.
- The *Appointment of Divers Form Part 1 & 2* with identification of necessary isolations must be completed prior to the commencement of any Forth Ports contracted diving operation by the *Authorising Person* and the *Dive Supervisor*
- *Dive Permit* must be authorised by the *Responsible Marine Person* and *FTNS//Duty Harbour Master (Tilbury)* and issued before any diving commences
- *Appointment of Divers Forms* should be archived for a period of at least 3 years by the *Authorising Person*
- The *Authorising Person* must liaise with the diving supervisor to ensure all safety equipment and signage is in place. Dive is not to proceed if these conditions cannot be fulfilled.
- The *Authorising person* is to add the *Dive Permit* no. to the *Appointment of Divers Form* as soon as practicable.
- The *Authorising Person* should forward copies of the *Appointment of Divers form* to relevant parties identified to inform them of diving operations nearby their undertaking. This could be other Forth Ports departments, Contractors, Tenants, etc.
- *Dive Permits* are to be submitted by the *Dive Supervisor* or *Authorising Person* at least 2 working days before the commencement of the dive. *Time Critical Circumstances* may apply to reduce this window.
- *Dive Permits* are to be archived for at least 3 years upon the permanent withdrawal by the *Responsible Marine Person* and *Dive Supervisor*. All permits are to be archived by *FTNS/Duty Harbour Master*.
- *Dive Permits* may be temporarily suspended or cancelled by the *Responsible Marine Person* or the *Assistant/Duty Harbour Master* due to non-compliance with permit conditions or lack of communication on agreed channels.
- *Dive Permits* should be forwarded to relevant interested parties to ensure they are aware of planned diving operations. A “Notice to Mariners” should be sent where relevant diving operations are to be undertaken.
- An approved *Dive Permit* is to be completed before commencement of any Forth Ports contracted diving operation.
- The *Dive Permit* is to be permanently withdrawn upon notification from the *Dive supervisor* that the diving operation has been completed. The *Dive supervisor* must email [diving@forthports.co.uk](mailto:diving@forthports.co.uk) (Scottish Operations) or [diving@potll.co.uk](mailto:diving@potll.co.uk) (Tilbury)



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### **Permission to Dive (Flowchart 2)**

For commercial diving operations undertaken in the areas identified within the Forth Ports statutory harbour areas that are not contracted by Forth Ports, then a "Permission to Dive" must be submitted from the Diving Contractor's *Dive Supervisor* at least two working days before the intended commencement date. This must be submitted to [diving@forthports.co.uk](mailto:diving@forthports.co.uk) or [diving@potll.co.uk](mailto:diving@potll.co.uk). FTNS and Tilbury Control are responsible for ensuring navigational safety and implementation of exclusion zones.

The Diving Contractor's *Dive Supervisor* must provide details and justification of the necessary exclusion zone within their "Permission to Dive". Permission must not be granted if the diving contractor fails to provide information required by the Permission to Dive. Confirmation to cease the navigational exclusion zone once the diving operation is completed must be given from the *Dive Supervisor* via VHF/Recorded telephone and email to [diving@forthports.co.uk](mailto:diving@forthports.co.uk) or [diving@potll.co.uk](mailto:diving@potll.co.uk).

### **Permission to Dive Part B**

To be completed for commercial dives within Forth Ports limited premises as defined within the Red Line Boundary and Underwater Hazard Map.

Part B is to ensure navigational safety and ensure communication of known hazards which may pose risk to the diving contractor can be sufficiently controlled to reduce risk to as low as is reasonably practicable.

### **Permission to Dive Part C**

To be completed for commercial diving operations out with Forth Ports limited premises as defined within the Red Line Boundary and Underwater Hazard Map.

Part C is to ensure navigational safety and implementation of exclusion zones.

### **Additional Information**

For any third-party dive operations being carried out in Locks or in the vicinity of sluices or water intakes the third party contractor must obtain confirmation from the Forth Ports' Engineering department that relevant isolations are in place prior to a Permission to Dive being accepted.

Where there are water intakes within Port that are the responsibility and under the control of organisations other than Forth Ports, confirmation that isolations are in place must be obtained prior to a *Dive Permit* or *Permission to Dive* being accepted.

The *Dive supervisor* must provide their *Dive Project Plan*, Employers Indemnity Insurance and *Dive Supervisor* letter of appointment when submitting their *Permission to Dive*.

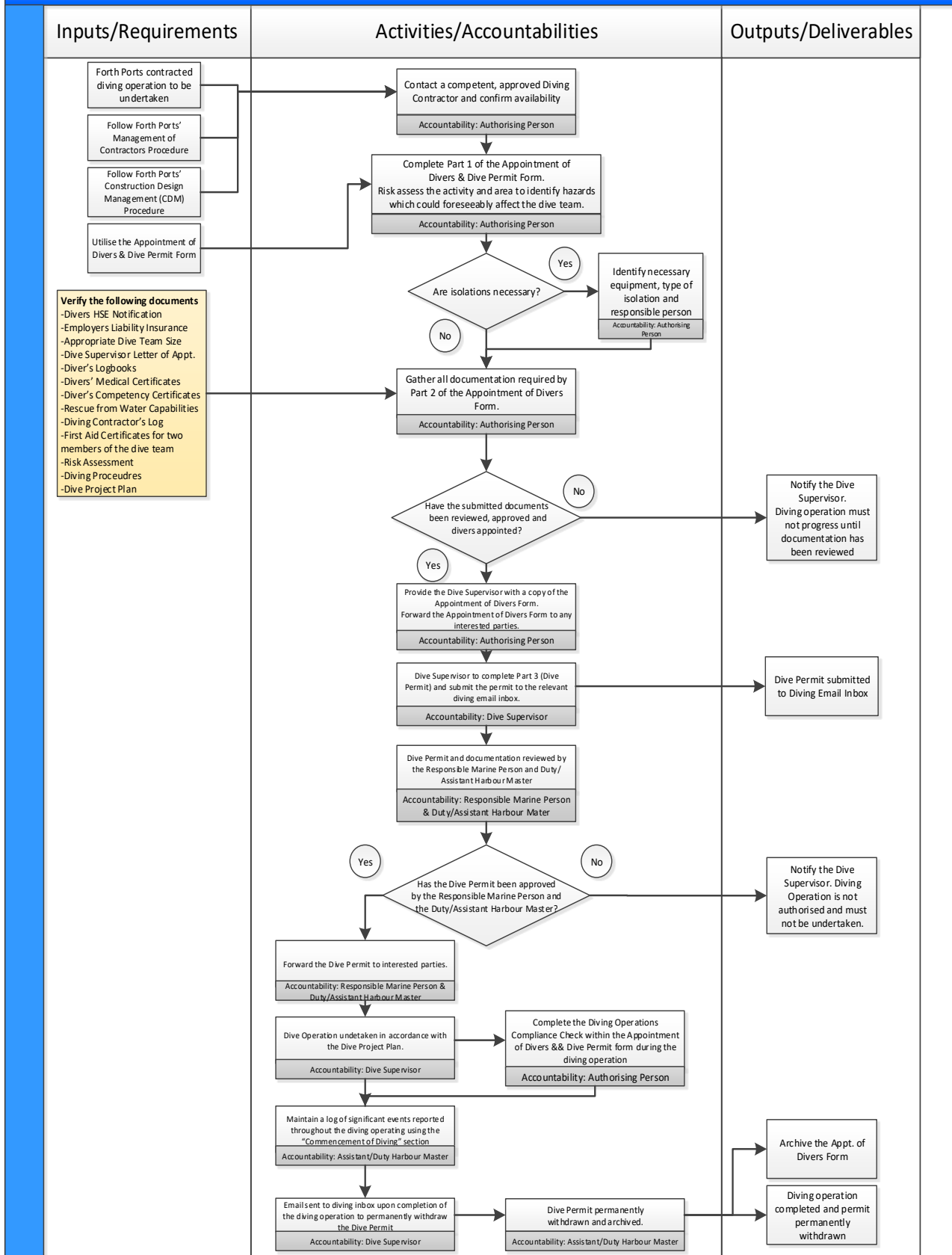
There must be a suitable interface plan between the contracting organisation, diving contractor, Forth Ports and any other interested parties to ensure the requirements of the emergency response plan are met. (This can include provision and access to jetty's, berths, ensuring access gates are opened).



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## 5.0 PROCEDURE

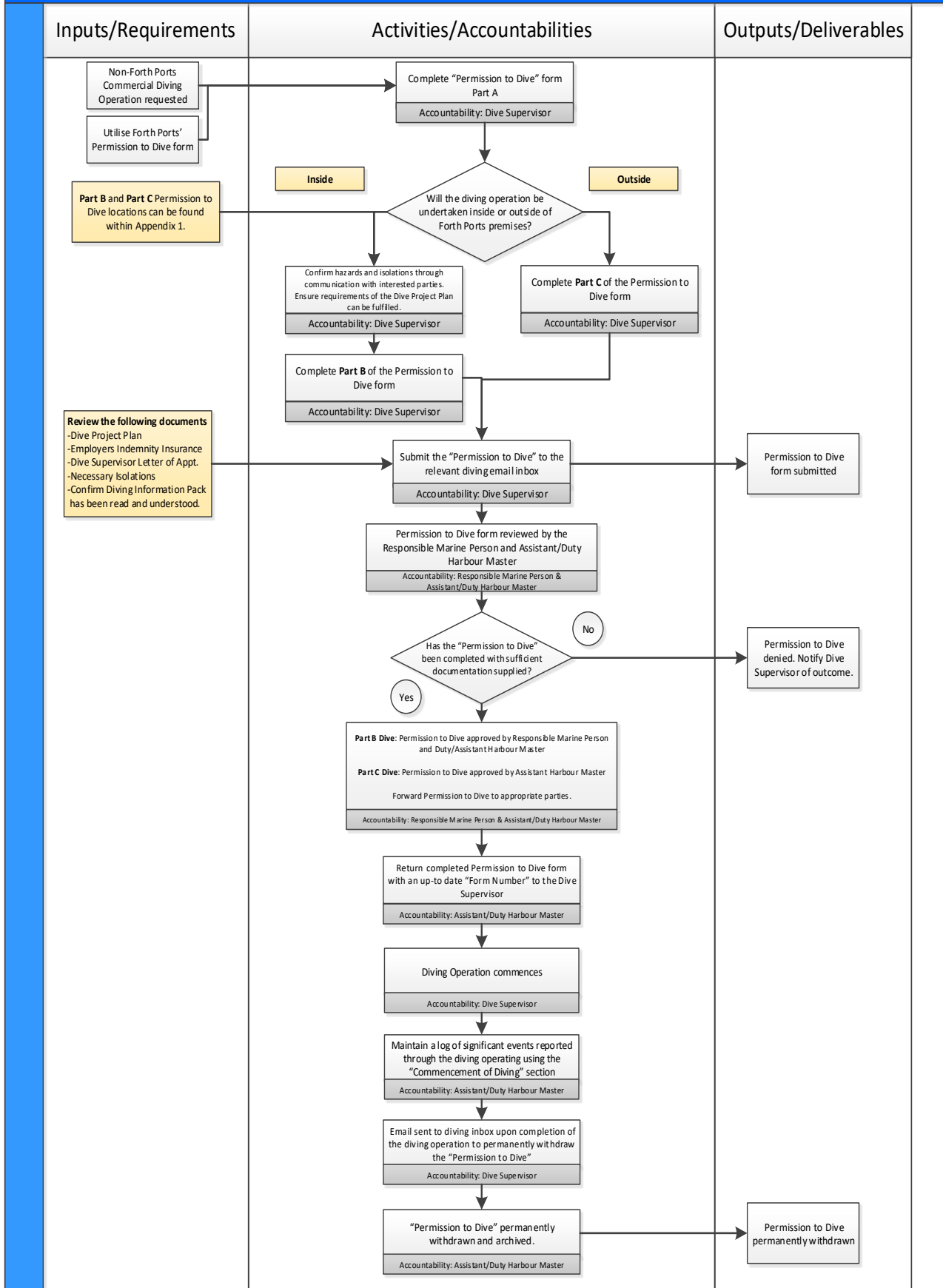
Flowchart 1: Forth Ports Contracted Diving Operations





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**Flowchart 2: Permission to Dive (Non-Forth Ports Contracted Diving Operations)**







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### 5.1 COMMENCEMENT / SUSPENSION / TERMINATION OF DIVING OPERATIONS:

- a. the *Dive supervisor* must obtain clearance from the *Responsible Marine Person* for the commencement of operations and navigational clearance from the Assistant Harbour Master, or Duty Harbour Master (Tilbury), via agreed communication channels stated on the *Dive Permit or Permission to Dive*;
- b. the Assistant Harbour Master, *Console Controller* and Duty Harbour Master (Tilbury) Person will ensure the Diving Operations notice is on display in the *FTNS* Marine Department Control Room during diving operations and Divers must display at all times Flag Alpha during the diving operation – even if diving from the quayside;
- c. further calls must be made using agreed method of communications when divers are in and out of the water throughout the diving operation, these must be logged by the Assistant/Duty Harbour Master;
- d. if the diving operation is scheduled to cross over several days the *Dive supervisor* must inform the Assistant Harbour Master or Duty Harbour Master (Tilbury), via recorded telephone or VHF that the diving operations are suspended at the end of each day and again resumed the next day in the same manner unless a new *Dive Permit or Permission to Dive* will be requested; and,
- e. on completion of the Diving Operation the *Dive supervisor* must confirm via the email that diving operations have been completed and the *Dive Permit/Permission to Dive* will be permanently withdrawn. The Assistant Harbour Master or Duty Harbour Master (Tilbury) will sign the permit as complete once notification is given via email

#### **Self-Contained Underwater Breathing Apparatus (SCUBA) Diving Operations**

Commercial SCUBA diving operations are not authorised within Forth Ports Scottish Operations or the Port of Tilbury under any circumstances.

Operations in which members of the Armed Forces or a visiting force are engaged in warfare or are training for warfare are exempt from the above. SCUBA exemptions also apply to members of the Emergency Services required to dive within Forth Ports' premises or in the River Forth or River Tay.

### 6.0 INFORMATION, INSTRUCTION, TRAINING & SUPERVISION

Formal training by a competent subject matter expert should be provided to those who have a responsibility for appointing / approving / overseeing or are involved in diving operations. The training should make clear to all parties involved what their responsibilities are in relation to the diving at work regulations and how diving projects should be managed.

The formal training should include a session on the company procedure with examples of completed forms.

### 7.0 RECORDS

All completed *Appointment of Divers Forms*, *Dive Permits* and *Permission to Dives* shall be retained for a period of 3 years. It is recommended to archive any copies of documentation sent by Dive Supervisors for at least 3 years.

### 8.0 REVIEW

This procedure must be reviewed on a three yearly basis or following any organisational change by the Health and Safety department.

### 9.0 AUDIT

Each department will be subject to audit against this procedure during both external and internal procedural audits.





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### 10.0 FORM

*Appointment of Divers Form & Dive Permit (HSOP08F9#04)*  
*Permission to Dive Form (HSOP08F10#01)*

### 11.0 REFERENCES

The Health and Safety At work Act 1974.  
The Management of Health and Safety at Work Regulations 1999.  
The Diving at Work Regulations 1997.  
Commercial diving projects inland / inshore: Diving at work Regulations 1997. Approved Code of Practice. <http://www.hse.gov.uk/pubns/priced/l104.pdf>  
Provision and Use of Work Equipment Regulations 1992. <http://www.hse.gov.uk/pubns/priced/l22.pdf>  
Personal Protective Equipment at Work Regulations 1992.  
<http://www.hse.gov.uk/pubns/priced/l25.pdf>  
Health and Safety First Aid Regulations 1981. <http://www.hse.gov.uk/pubns/priced/l74.pdf>  
Control of Substances Hazardous to Health Regulations 2002.  
<http://www.hse.gov.uk/pubns/priced/l5.pdf>  
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009  
Pressure Systems Safety Regulations 2000.  
<http://www.legislation.gov.uk/ukxi/2009/1348/contents/made>  
Electricity at Work Regulations 1989.  
Control of Noise at Work Regulations 2005.  
Managing Contractors: A Guide for Employers HSG 159.  
<http://www.hse.gov.uk/pubns/priced/hsg159.pdf>  
HSE Guidance on Permit to Work Systems in the Petroleum Industry, The Safe isolation of Plant and Equipment.  
HSE list of approved diving qualifications, <http://www.hse.gov.uk/diving/qualifications/>  
BS EN ISO 9001.  
ISO: 45001:2018

### 11.1 GUIDANCE

Responsibilities of Parties involved in Diving Projects Guidance, HSOP08G10#03  
Planning and Monitoring Diving Operations Advice, HSOP08G11#01  
Permission to Dive Locations Appendix 1

### 12.0 EQUIPMENT

N/A