

ROV Pilot Technician Grade I

R03

The following should be read and used in conjunction with the information pack 'Competence Assurance & Assessment: Introduction for Experienced Freelance Personnel'.

Evidence Required

- Competence appraisal:** ♦ at Pilot Technician Grade I level
- Work records:**
- ♦ copy of one safety related document such as a risk assessment form, toolbox talk sheet or safety briefing, which clearly shows that the candidate was involved in the process
 - ♦ copy of one video log completed by the candidate
 - ♦ copy of one piece of technical documentation completed by the candidate
- Witness testimonies:**
- ♦ one example of the candidate maintaining a safe working environment for self and others
 - ♦ one example of the candidate determining sea state conditions over the period of a 12 hour shift
 - ♦ one example of the candidate performing a fault diagnosis on the ROV system
- Essential knowledge:** ♦ written answers to Pilot Technician Grade I questions
- Curriculum Vitae** ♦ Detailing offshore trips, work scope, ROV systems, clients, regions etc
- Piloting Hours Log** ♦ Record of Piloting Hours detailing ROV system, work scope etc

IMCA Framework Requirements

The competence assurance and assessment framework developed by IMCA (the International Marine Contractors Association) sets out a number of elements for each safety-critical position. The following table shows how competence can be demonstrated against each element.

Code	Demonstration	Covered by
R/R03/000/01 Safety Awareness	Ability to implement incident/near-miss reporting procedures when necessary Ability to adhere to offshore safety standards and maintain a safe working environment for self and others Ability to react to safety critical situations and what immediate action to be taken to minimise/eliminate them Ability to work within company safety management system Participation in relevant safety related activities	Q 3 WT Q 2 Q 6 CA (a) R
R/R03/000/02 Emergency Procedures	Thorough understanding of company emergency procedure documents and where to find them Ability to recognise a potential or actual emergency situation and report it accordingly Ability to describe own role in emergency situations and that of colleagues	Q 4 Q 1 Q 5
R/R03/000/03 Teamwork and Co-operation	Establishment and maintenance of good working relationships with both junior and senior colleagues Ability to assign tasks to junior and colleagues ensuring clear understanding and satisfactory completion Ability to assist with launch and recovery operations under supervision. Determination of sea state recognising when conditions deteriorate and take appropriate action under supervision	CA (b) CA (h) CA (c) WT
R/R03/000/04 Preventative Maintenance	Carry out ROV system maintenance and complete planned maintenance schedules Carry out appropriate maintenance of ROV to PMS taking account of operational requirements Identify hazards likely to arise during maintenance activity Ability to discuss work to be undertaken with supervisor Ability to report and record work done	CA (g) CA (g) Q 7 CA (g) CA (g)

Code	Demonstration	Covered by
R/R03/000/05 Fault Finding	Ability to locate and follow fault finding and maintenance procedures for electronic systems within ROV system Identification of hazards that could arise during fault finding and maintenance procedures Ability to diagnose faults and maintain systems Ability to report and record work carried out	Q 8 Q 7 CA (i) CA (i) (g)
R/R03/000/06 Piloting an ROV	Demonstrates ability to navigate an ROV to the work site, in a range of environmental conditions, fully utilising appropriate navigational aids Ability to chose appropriate aids and operate ROV system if assessor not present; supervisor may be required	Q 9,10 CA (d) Q 10
R/R03/000/07 Operational Knowledge	Ability to perform a range of manipulator activities proficiently using a 5 or 7 function manipulator Ability to carry out appropriate pre-and post dive check	CA (e) Q 14
R/R03/000/08 Technical Ability	Ability to prepare the work area, and to select and prepare the equipment and tools Ability to remove termination from vehicle and cable identification for re-fit, after it has been risk assessed Preparation of re-termination, including testing as necessary, and correct handling of fibre optics, after it has been risk assessed Performance of appropriate mechanical and electrical tests before reconnection, after it has been risk assessed Completion or relevant documentation	Q 12 Q 12 Q 12 Q 12 Q 12
R/R03/000/09 Specialist Technical Ability	Ability to remove, test, inspect and install specialist equipment Performance of correct maintenance procedures Ability to plan sequence of operations, ensuring relevant authorisations, maintenance specifications and time limitations used under supervision Understanding completion of documentation and logs	CA (f) CA (g) Q 13 WT
R/R03/000/10 Administration	Ability to complete video logs and information indentation to client specifications Ability to perform audio and video dubbing as required to company/client specification Ability to ensure all recorded information fully complies with company QA/QC policies and procedures	R CA (j) CA (j)

Q Question (written answer required)

CA Competence Appraisal Form

R Record of work; document or product

WT Witness Testimony

Sample Achievement Record

Candidate name:

First assessor name:

	Assessment Decision	Approval of Internal Verifier/ Competence Focal Point
Safety Awareness		
Emergency Procedures		
Teamwork & Co-operation		
Preventative Maintenance		
Fault Finding		
Piloting an ROV		
Operational Knowledge		
Technical Ability		
Specialist Technical Ability		
Administration		

Comments:

First assessor signature: Date:

Verifier signature: Date:

Sample Competence Appraisal

The appraiser must have observed the appraisee completing the task before completing the relevant section. Where necessary a number of different appraisers may be used to complete the form fully.

Appraisee name:

Task	Feedback to Appraisee	Appraiser (Print name, sign and date)
<p>a) Demonstrate the ability to use the company safety systems for risk assessment and toolbox talks</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		
<p>b) Maintain effective teamwork and communication</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		
<p>c) Assist with launch and recovery operations</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		
<p>d) Navigate the ROV to the worksite in adverse environmental conditions</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		
<p>e) Perform a range of manipulator activities using a 5- or 7-function manipulator</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		
<p>f) Install ancillary equipment onto the ROV</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		
<p>g) Complete maintenance activities on the ROV system, ensuring that relevant documentation is completed</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		

<p>h) Assign simple maintenance tasks to junior team members</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		
<p>i) Find faults and effect repairs on the ROV system</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		
<p>j) Perform video and audio dubbing and ensure quality is acceptable for company and client</p> <p>Performance is exceptional <input type="checkbox"/></p> <p>Performance is competent and dependable <input type="checkbox"/></p> <p>Additional skills or experience required <input type="checkbox"/></p>		

Appraisee comments:

Appraisee signature:

.....

Date:

.....

Essential Knowledge – Sample Questionnaire

- 1 What is the definition of 'near miss' incident.
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- 2 Three of the main hazards associated with ROV operations are, High Voltage Electricity, High Pressure Systems and Lifting Operations. For each hazard, list the mitigating measures that should be in place to prevent the hazard causing an incident.
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- 3 For your worksite describe in detail how any safety incidents are reported.
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- 4 Where can you find the company emergency procedure documents for your worksite?
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- 5 Upon hearing a vessel / installation muster alarm, describe the actions that should be taken by the ROV team if the ROV is conducting operations at a subsea worksite.
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- 6 What are the aims of a toolbox talk?
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- 7 List the hazards that are likely to be present whilst performing maintenance and fault finding activities on the ROV.
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- 8 For your ROV system produce a block diagram of the data communications circuit and describe how you would proceed with trying to diagnose a failed communications link.
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- 9 When operating in high currents describe the tether / umbilical management techniques which can improve ROV stability and effectiveness at the worksite.
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- 10 You are required to navigate an ROV from it's launch point to a worksite which is 75m away. How would you use the available navigational aids to reach the worksite in the most efficient manner?
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- 11 Whilst you are temporarily supervising an in-water ROV (during a supervisors absence) the vessel / installation lifeboat muster alarms are sounded – describe in detail the actions you would take.
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- 12 Describe in detail the procedure for a conducting a mechanical re-termination. Your answer should address the following points, risk assessment, preparation of tools & test equipment, removal of existing termination, fitting & testing the new termination and completion of any relevant documentation.
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- 13 During intensive operations lasting a number of days, list in order of priority the maintenance activities that you would carry out during a short 'on deck' period of 2 hours.
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- 14 List the pre and post dive checks required for a manipulator on your ROV system
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