



The Offshore Diving Inspection Guide

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ED Offshore Inspectors

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Summary

This inspection guide (IG) outlines an approach to the inspection of duty holder's arrangements with respect to offshore diving and the key areas that inspectors should consider when inspecting this topic. It also sets out the criteria against which duty holder performance will be rated. References are made to technical standards and guidance that inspectors will use to form an opinion of legal compliance.

Introduction

The purpose of this IG is to provide information and guidance to Offshore Safety Directive Regulator (OSDR) inspectors to support the delivery of consistent and effective inspection of duty holder arrangements to comply with offshore diving legislation.

This IG is primarily used by Energy Division (ED) diving inspectors who are inspecting a duty holder's ability to manage their diving projects safely. These inspections may take the form of onshore inspections to verify diving safety management systems in addition to inspections of diving projects offshore.

It also highlights key areas for inspection and provides a framework against which inspectors can judge compliance, assign performance ratings and determine what enforcement action should be taken with respect to legislative breaches that may be found.

Relevant Legislation

Health and Safety at Work etc. Act 1974

Diving at Work Regulations 1997 (DWR 97)

Offshore Installations (Offshore Safety Directive) (Safety Case etc) Regulations 2015 (SCR 2015)

Management of Health and Safety at Work Regulations 1999

Prevention of Fire and Explosion, and Emergency Response on Offshore Installations Regulations 1995 (PFEER)

Relevant Guidance

ACOP (L103 [Commercial Diving Projects Offshore](#))

Action

Inspectors should review relevant documentation (see Annex 1 Pre-visit Information Request) prior to the inspection visit and test compliance during the inspection visit against DWR 97, SCR 2015 and the ACOP.

By the conclusion of the inspection it should be possible to

- assess compliance with relevant legislation
- promulgate inspection findings and take relevant enforcement action if required
- determine the appropriate performance rating using the performance descriptors in Appendix 4
- consider how and when the issues raised during an inspection are to be closed out

Background

SCR 2015 Regulation 2 defines diving as a major accident hazard. It identifies the failure of life support systems for diving operations in connection with the installation, the detachment of a diving bell used for such operations or the trapping of a diver in a diving bell or other subsea chamber used for such operations as being major accidents.

The Diving at Work Regulations 1997 and the accompanying ACOP (L103 Commercial Diving Projects Offshore) define legal requirements and provide guidance on compliance respectively.

Regulation 4 of the Diving at Work Regulation 1997 details the duties that clients and others have in ensuring these Regulations are complied with.

Specialist Advice

Specialist advice is frequently sought from Marine Engineering, Offshore Decommissioning, Human Factors, Emergency Response, and other specialist disciplines when considering policy or enforcement issues.

Organisation

Targeting

Inspections should be planned in accordance with the requirements of the ED offshore intervention plans (IPs). Risk ranking will be applied when drafting the offshore diving inspection schedule and will detail intervention frequencies and targeting.

Timing

Inspectors should undertake inspections as detailed by the offshore diving inspection schedule. In addition, inspections will take place when intelligence indicates intervention is necessary, or as part of an investigation following an incident. Diving inspections are driven by the dates on which diving projects are conducted, often necessitating short lead times and short notice changes.

Resources

Resources required to undertake the inspection activity will be detailed by diving group team leaders in consultation with discipline specialist team-leaders and inspection management team-leaders as appropriate.

Recording and Reporting

The duty holder performance ratings should be entered on the Inspection Rating (IRF) Tab of the relevant installation Intervention Plan Service Order. Findings will be recorded in the post inspection report and letter.

Appendix 1 Pre-visit information Request

Inspectors should engage early with duty holders and associated stakeholders when undertaking either office based offshore diving duty holder's management reviews (ODDMRs) or offshore inspections. A list of potential documents and material to be considered for review prior to the inspection is

Duty holder

- subsea operations management documentation
- project-specific management process including hazard identification and risk assessments (HIRAs)
- assurance documentation for vessel and diving system
- marine and dive system assurance
- competence assurance of personnel
- Permit to work (PTW) system management and compliance on the diving support vessel (DSV)

Diving contractor

- subsea operations manuals
- subsea safety management systems
- assurance manuals
- diving project plan
- diving procedures
- emergency procedures
- bridging documentation
- project procedures
- project risk assessments
- competence assurance of personnel
- log books of divers and supervisory staff
- diving and sat system logs
- Dive system assurance documentation: DESIGN, Class and failure mode, effects & criticality analysis (FMECA)
- safety meeting records
- planned maintenance system (PMS) and records
- hyperbaric evacuation plan

Marine

- offshore vessel inspection database (eCMID/OVID)
- activity specific operating guidelines (ASOG)
- dynamic positioning (DP) log and fault log / close-outs

- annual DP trial audit report and close-out
- field trials
- PTW system and records
- PMS and records

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Appendix 2 Offshore Diving Inspection Guidance

This section of the IG suggests key inspection topics. Inspectors should ensure these are appropriate to the type and scope of the diving project, using their discretion, expertise and time available to maximise effectiveness.

Offshore inspections will usually include the following topics

- duty holder's management of diving projects
- management of diving as a major accident hazard
- diving contractor's management of diving operations
- diving plant and equipment
- diving personnel
- ROV operations
- lifting and rigging activities

The ED Offshore Diving Inspection Report template (Diving Group SharePoint site) provides further guidance and a format on which the inspection findings are recorded.

Appendix 3 Subsea Safety Management System Inspection Guidance

An offshore duty holder's diving safety management system is inspected on a 5-yearly basis. The process by which the inspection is undertaken is the offshore diving duty holder's management review (ODDMR). The ODDMR is a process designed to allow the duty holder to demonstrate to the regulator that they have an effective safety management system in place to meet the requirements of the DWR 1997, SCR 2015, and other relevant guidance and standards pertaining to diving projects.

The ODDMR document outlines eight key requirements duty holders should demonstrate to verify their diving safety management system (summarised below)

1. Diving should be properly addressed in the duty holder's safety cases
2. The duty holder has a responsibility to manage its diving contractors
3. The duty holder should employ sufficient suitably competent people in connection with its management of diving operations
4. The duty holder should procure competent and regulatory-compliant diving contractors
5. The duty holder should assure themselves of the fitness for purpose of the diving contractor's diving system(s)
6. The duty holder should assure themselves of the fitness for purpose of the diving contractor's diving support vessel
- 7.1 The duty holder should ensure that diving, as a major accident hazard (MAH), is properly managed (1 - Process)
- 7.2 The duty holder should ensure that diving, as a MAH, is properly managed (2 - Execution)
8. The duty holder should ensure that installation-based diving is properly managed

The current revision of the ODDMR core document is retained on the Diving Group SharePoint site. Inspectors should use the most current ED templates and letter formats to record findings of ODDMR Inspections.

Appendix 4 Application of EMM and Duty Holder Performance Assessment

When inspecting the offshore diving duty holder, compliance is to be assessed against the relevant success criteria.

The success criteria have been determined from specific regulatory requirements, defined standards, established standards or interpretative standards.

This assessment will determine the EMM Risk Gap, the associated topic performance score together with the Initial Enforcement Expectation as shown in the table below. The initial enforcement expectation criteria differ slightly from the EMM for a 'Nominal' risk gap. This is because in practice '30' scores have been found to cover a wide range of risk gaps and a verbal warning would be an inappropriate enforcement response in many cases.

The actual enforcement may differ depending on local factors, **however, should this occur then the relevant local factors should be identified.**

Further guidance can be found at: <http://www.hse.gov.uk/enforce/emm.pdf>

EMM RISK GAP					
Extreme	Substantial	Moderate	Nominal	None	None
TOPIC PERFORMANCE SCORE					
60	50	40	30	20	10
Unacceptable	Very Poor	Poor	Broadly Compliant	Fully Compliant	Exemplary
EMM Initial Enforcement Expectation					
Prosecution / Enforcement Notice	Enforcement notice / Letter	Enforcement notice / Letter	Letter/Verbal warning	None	None

It should be noted that

- the IG and hence the allocated scores may not cover all the matters that were considered during the intervention
- the intervention may not necessarily have used every part of the IG. Consequently, the score only reflects what was inspected and the risk gap associated with the inspection findings
- where compliance gaps are found in two or more areas the overall score should not be less than the most significant risk gap identified. In addition, risks are cumulative, therefore risk gaps found in several areas need to be 'added' to ensure the overall risk is accounted for in the score. For example, two or three substantive scores of '30' will point strongly to an overall score of '40'. There is currently no mathematical or other systematic process for doing this and inspectors must therefore use their judgement to allocate an appropriate score that best represents the overall inspection findings against this IG. The judgements made will be reviewed over time with the aim of establishing improved guidance for this activity