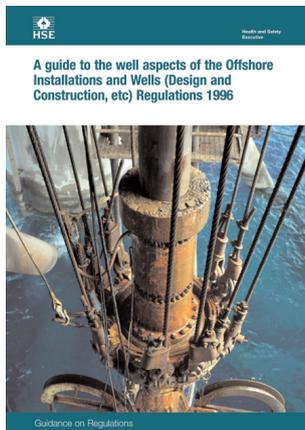


A guide to the well aspects of the Offshore Installations and Wells (Design and Construction, etc) Regulations 1996

Guidance on Regulations



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This second edition of L84 is a minor revision, which takes into account changes to the regulations and the guidance since the first edition. The guide is for people affected by the well aspects of the Offshore Installations and Wells (Design and Construction, etc) Regulations 1996. It offers a simple explanation of the main provisions of the Regulations to help well operators, installation operators, installation owners, employers, managers, safety representatives, safety committee members and others involved with offshore activities.

This publication was prepared following widespread consultation with representatives of the Confederation of British Industry and industry associations representing offshore operators and contractors, the Trades Union Congress and offshore unions, other interested organisations, and government departments.

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This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.

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Preface

This guide to the well aspects of the Offshore Installations and Wells (Design and Construction, etc) Regulations 1996 (SI 1996/913) (DCR) is intended to help people who may be affected by the Regulations to understand what they require. It is a simple explanation of the main provisions of the Regulations to help well operators, installation operators, installation owners, employers, managers, safety representatives, safety committee members and others involved with offshore activities.

Detailed guidance on other matters covered in the Regulations may be found in *A guide to the integrity, workplace environment and miscellaneous aspects of the Offshore Installations and Wells (Design and Construction, etc) Regulations 1996*.¹

Introduction

1 This book gives guidance on the well aspects of the Offshore Installations and Wells (Design and Construction, etc) Regulations (SI 1996/913) (DCR), which came into force in 1996. For convenience, the text of the Regulations is included in italics, with the appropriate guidance immediately below, in plain text. Where the Regulations are self-explanatory, there is no comment.

2 This publication was prepared following widespread consultation with representatives of the Confederation of British Industry and industry associations representing offshore operators and contractors, the Trades Union Congress and offshore unions, other interested organisations, and government departments.

3 The well provisions of the Offshore Installations and Wells (Design and Construction, etc) Regulations 1996 (referred to as ‘the Regulations’ in this guidance) are concerned with the safety of wells both onshore and offshore. They replaced the Offshore Installations (Well Control) Regulations 1980 (SI 1980/1759), the Offshore Installations (Well Control) (Amendment) Regulations 1991 (SI 1991/308) and regulation 15 and Schedule 4 of the Offshore Installations (Operational Safety, Health and Welfare) Regulations 1976 (SI 1976/1019). The main duties introduced by the well provisions were:

- (a) to ensure that a well is designed, modified, commissioned, constructed, equipped, operated, maintained, suspended and abandoned so that risks from it are as low as is reasonably practicable;
- (b) to conduct an assessment of conditions below ground before starting a well;
- (c) to ensure that the design and construction of a well satisfactorily address its subsequent suspension and abandonment;
- (d) to ensure that before the design of a well is started or adopted, a well examination scheme is in place for ensuring that the well is designed and constructed so that so far as is reasonably practicable there can be no unplanned escape of fluids, and that the risks to people’s health and safety are as low as is reasonably practicable;
- (e) to provide regular reports of well operations activity to HSE;
- (f) to promote competence in those who carry out well operations by ensuring they receive appropriate information, instruction, training and supervision.

Scope of the Regulations

4 With the exception of regulation 17, the Regulations apply to wells offshore and on land. Regulation 17, which deals with well control equipment, applies offshore only. This is because an equivalent onshore provision had already been provided by regulation 9 and Schedule 2 of the Borehole Sites and Operations Regulations 1995 (SI 1995/2038) (BSOR).²

5 The requirements are additional to the well notification requirements contained in other UK health and safety legislation. Offshore, the requirement to notify HSE of certain well drilling operations is provided for in regulation 17 of the Offshore Installations (Safety Case) Regulations 2005 (SCR) (SI 2005/3117).³ Guidance on these matters is provided in *A guide to the Offshore Installations (Safety Case) Regulations 2005*.⁴ The parallel requirement onshore is provided for in regulation 6(1) of BSOR. Further guidance is provided in HSE publication *A guide to the Borehole Sites and Operations Regulations 1995*.⁵

Relationship between these Regulations and other health and safety law

6 These Regulations complement various other health and safety requirements which also apply to well operations. Each regulation describes specific interfaces. This section describes how the Regulations fit in with general health and safety legislation and with SCR.

General health and safety legislation

7 The Health and Safety at Work etc Act 1974 (HSWA)⁶ places general duties on all employers to ensure, so far as is reasonably practicable, the health and safety of their employees and of others who might be affected by their undertaking (HSWA, sections 2 and 3). These general duties are supplemented by the Management of Health and Safety at Work Regulations 1999 (MHSWR)⁷ which contain requirements on risk assessments, health and safety arrangements, health surveillance, providing competent persons and the co-operation and co-ordination of health and safety activities between different employers and the self-employed.

Offshore Installations (Safety Case) Regulations 2005

8 The Offshore Installations (Safety Case) Regulations 2005 require employers to submit a safety case for acceptance by HSE for every offshore installation. This should address hazards with the potential to cause a major accident, including those associated with wells, both on the installation and connected to it. Regulation 12(1) of SCR requires a demonstration of the adequacy of the safety management system to ensure compliance with health and safety requirements.

Borehole Sites and Operations Regulations 1995

9 Onshore, BSOR requires an operator to prepare a health and safety document before starting borehole operations. The health and safety document identifies risks associated with operations and details plans for dealing with and managing these risks. The HSE publication, *A guide to the Borehole Sites and Operations Regulations 1995* gives more guidance on this.

Prevention of Fire and Explosion, and Emergency Response Regulations

10 There is also an interface between this part of DCR and the requirements of the Offshore Installations (Prevention of Fire and Explosion and Emergency Response) Regulations 1995 (PFEER).⁸ The assessment of major accident hazards required by regulation 5 of PFEER will need to consider hazards associated with wells and their control; and, as additionally required by regulation 9, the dutyholder must ensure appropriate measures are taken, with a view to preventing fire and explosion, in particular the uncontrolled release of flammable or explosive substances.

Provision and Use of Work Equipment Regulations 1998

11 There is an interface between the Provision and Use of Work Equipment Regulations 1998 (PUWER)⁹ and the wells provisions of DCR. DCR defines a well to include equipment for containing the pressure in it and some of this equipment may also be covered by PUWER (whose primary objective is to ensure the provision of safe work equipment and its safe use). Where PUWER applies to equipment on or in the well, no additional requirements are imposed by this regulation. A dutyholder may cite (and need not repeat) work carried out under the well examination scheme required by regulation 18 of DCR.

Regulation

1

Regulation 1 Citation and commencement

These Regulations may be cited as the Offshore Installations and Wells (Design and Construction, etc) Regulations 1996 and shall come into force on 30 June 1996.

Regulation

2

Regulation 2 Interpretation

(1) *In these Regulations, unless the context otherwise requires –*

“the 2005 Regulations” means the Offshore Installations (Safety Case) Regulations 2005^(a);

“the 1995 Order” means the Health and Safety at Work etc Act 1974 (Application outside Great Britain) Order 1995^(b);

“the 1995 Regulations” means the Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995^(c);

“duty holder” in relation to an installation, means the person who is the duty holder as defined by regulation 2(1) of the 1995 Regulations in relation to that installation;

“environmental conditions” means –

- (a) meteorological and oceanological conditions; and*
- (b) properties and configuration of the seabed and subsoil;*

“the Executive” means the Health and Safety Executive;

“fixed installation” means an installation other than a mobile installation;

“installation” means an offshore installation within the meaning of regulation 3, except sub-paragraphs (a) and (b), and paragraph (ii) of sub-paragraph (c) of paragraph (3), of the 1995 Regulations;

“integrity” means structural soundness and strength, stability and, in the case of a floating installation, buoyancy in so far as they are relevant to the health and safety of persons;

“licensee” means any person to whom a licence to search and bore for and get petroleum in respect of any area within relevant waters is granted pursuant to section 3 of the Petroleum Act 1998;

“management system” means the organisation and arrangements established by a person for managing his undertaking;

“mobile installation” means an installation which can be moved from place to place without major dismantling or modification, whether or not it has its own motive power;

(a) SI 2005/3117.

(b) SI 1995/263.

(c) SI 1995/738.

Regulation

2

“safety case” means a document described in regulation 2(2) of the 2005 Regulations which is required to be prepared pursuant to a provision of those Regulations;

“traffic route” means a route for pedestrians, vehicles or both and includes any stairs, staircase, fixed ladder, doorway, gateway, loading bay or ramp;

“well” means –

- (a) a well made by drilling; and*
- (b) a borehole drilled with a view to the extraction of minerals through it or another well,*

and shall be deemed to include any device on it for containing the pressure in it;

Guidance

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Definition of a well

12 This definition applies to all wells in the offshore sector, whether they are connected to a fixed installation, mobile installation, ship or stand-alone well on the seabed. It also applies to certain wells on land in Great Britain drilled for the extraction, or in connection with the extraction, of oil and gas. The guidance on regulation 3 (Application) makes clear the scope of the coverage of the Regulations to both sectors.

13 Sub-paragraph (b) of the definition includes injection and monitoring wells. The definition does not cover boreholes that are drilled solely for the purpose of exploring for minerals, which are then to be extracted by another method, eg searching for aggregates on the seabed which are then exploited by dredging, or land boreholes drilled to search for coal reserves which are then exploited by a different method.

14 The well is defined in terms of its pressure containment boundary. Any equipment that is vital to controlling the pressure within the well is therefore covered. This would include downhole pressure-containing equipment and the pressure-containing equipment on top of the well such as blowout preventers or Christmas trees, but excludes well control equipment downstream that can be isolated from the well by valves. Examples of where the well ends are:

- (a) above the top blowout preventer (BOP) in the BOP stack and outside the choke and kill valves;
- (b) downstream of the swab and production wing valves of a Christmas tree;
- (c) at the top of the stuffing box of a wireline BOP.

Regulation 2

Guidance 2

Regulation

2

“well intervention operation” means an operation in which a well is re-entered for a purpose other than to continue drilling or to maintain or repair it;

15 A well intervention operation is an operation which involves entering the pressure boundary of the well.

“well-operator”, in relation to a well, means the person appointed by the licensee for a well to execute the function of organising and supervising all operations to be carried out by means of such well or, where no such person has been appointed, the licensee;

Guidance

Definition of a well-operator

16 This regulation defines a well-operator as the person appointed by the licensee to organise and supervise operations associated with the well. The licensee is usually a consortium of oil companies, granted a licence by the Department for Business, Enterprise and Regulatory Reform (BERR), and they usually appoint from amongst themselves the well-operator to operate the licence and exploit the field. They may also choose to appoint an outside contractor. This is the person with sufficient knowledge of the reservoir and well structure to achieve the safe design, construction, maintenance, operation and eventual abandonment of the well. In either case, the well-operator will have all control of the organisation and supervision of well operations. A contractor would have to be provided with all the information necessary to discharge the duty of well-operator.

17 The well-operator will normally be the same person as the operator identified under the appropriate current model clause of the applicable Petroleum (Production) Regulations (eg Model Clause 24 of the Petroleum (Production) (Seaward Areas) Regulations 1988 or Model Clause 15 of Schedule 6 of the Petroleum (Production) (Landward Areas) Regulations 1991).

2

Regulation

“workover operation” means an operation in which a well is re-entered for the purpose of maintaining or repairing it; and

“workplace” means any workroom or other place on an installation used mainly for the performance of work, and does not include a traffic route.

(2) *Any reference in these Regulations to operating an installation is a reference to using it for any of the purposes described in regulation 3(1) of the 1995 Regulations.*

(3) *Where a duty holder in relation to an installation, or a well-operator, is succeeded by a new duty holder or well-operator, anything done in compliance with these Regulations by the former duty holder or operator in relation to the installation or the well shall, for the purpose of these Regulations, be treated as having been done by his successor.*

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Guidance

18 In relation to wells, this paragraph allows credit to be taken by the current well-operator for work done by a previous well-operator in compliance with the requirements of the Regulations. Such work does not have to be done again. However, the new well-operator must satisfy himself with the arrangements in place and confirm they fulfil the regulatory requirements. The regulation is not intended to imply the new well-operator would bear responsibility for any failure of the previous well-operator to meet these Regulations.

2

Regulation

(4) *Unless the context otherwise requires –*

(a) *any reference in these Regulations (apart from Schedule 2) to –*

- (i) *a numbered regulation or Schedule is a reference to the regulation or Schedule in these Regulations so numbered; and*
- (ii) *a numbered paragraph is a reference to the paragraph so numbered in the regulation or Schedule in which the reference appears; and*

(b) *any reference in Schedule 2 to a numbered regulation or Schedule is a reference to the regulation or Schedule in the 2005 Regulations so numbered.*

2

Regulation

3

Regulation 3 Application

(1) *Subject to paragraphs (2) and (3), these Regulations shall apply –*

- (a) *in Great Britain; and*
- (b) *to and in relation to installations, wells and activities outside Great Britain to which sections 1 to 59 and 80 to 82 of the 1974 Act apply by virtue of articles 4(1) and (2)(b) and 5 of the 1995 Order.*

(2) *These Regulations shall apply to a well in Great Britain, and activities in relation to it, only if –*

- (a) *it is drilled from an installation; or*
- (b) *it is drilled with a view to the extraction of petroleum.*

(3) *In paragraph (2) “petroleum” means any mineral oil or relative hydrocarbon and natural gas existing in its natural condition in strata, but does not include coal or bituminous shales or other stratified deposits from which oil can be extracted by destructive distillation.*

Guidance

3

19 This regulation applies to the requirements on wells in DCR to oil and gas wells in Great Britain, and all wells in territorial waters and the UK Continental Shelf.

20 Regulation 3(2)(a) means that any well drilled from an offshore installation in waters within the Great Britain baseline (eg an estuary) is covered by the Regulations.

21 Regulation 3(2)(b) excludes any wells in Great Britain apart from those covered by regulation 3(2)(a) that are not drilled for the extraction, or with a view to the extraction, of oil and gas. The regulation would include boreholes drilled for, or with a view to, the extraction of coalbed methane.

Regulation

13

Regulation 13 General duty

(1) *The well-operator shall ensure that a well is so designed, modified, commissioned, constructed, equipped, operated, maintained, suspended and abandoned that –*

- (a) *so far as is reasonably practicable, there can be no unplanned escape of fluids from the well; and*
- (b) *risks to the health and safety of persons from it or anything in it, or in strata to which it is connected, are as low as is reasonably practicable.*

(2) *The provisions of regulations 14 to 19 and 21 are without prejudice to the generality of the requirements of paragraph (1) save that, where regulation 17(2) places a duty on the duty holder for an installation, the well-operator is not under the same duty.*

Guidance

13

22 Regulation 13 requires the well-operator to ensure the safe condition of a well at all stages in its life. So, the focus overall is on the safe physical condition of the well, rather than the actual operation being carried out in the well.

23 The provision can be regarded as a general duty of care which is supplemented by three sub-goals at regulations 14, 15 and 16. Regulation 13 makes specific reference to ‘designed’, ‘constructed’, ‘commissioned’, ‘equipped’,

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'modified', 'operated', 'maintained', 'suspended' and 'abandoned'. An explanation of these terms is given below:

- (a) 'designed' means planning the well and specifying the necessary equipment, using all necessary information and calculations, taking account of its life cycle and subsequent use;
- (b) 'constructed' means the entire process of drilling and installing equipment in it, including the initial completion of a well;
- (c) 'commissioned' means the process of bringing the well into operation;
- (d) 'equipped' means the selection and supply of well control, completion and well-head equipment;
- (e) 'modified' means replacement, removal, addition or relocation of an item of construction or change in the use of an existing well;
- (f) 'operated' means the use of a completed well, eg producing from a well, injecting gas or water into the well, gas lifting, well testing, cuttings injection;
- (g) 'maintained' means keeping the well in such condition that its safe condition is not prejudiced;
- (h) 'suspended' means the temporary plugging of a well;
- (i) 'abandoned' means the permanent plugging of the well to prevent the release of well fluids.

24 The deployment of well control equipment provided for well operations is excluded from the provisions of this requirement, as it is separately covered by regulation 17(2). However, selecting well control equipment forming part of the well is covered by this regulation, as well control equipment must be specified as suitable for use on a particular well.

13

Regulation

Regulation 14 Assessment of conditions below ground

- (1) *Before the design of a well is commenced the well-operator shall cause –*
- (a) *the geological strata and formations, and fluids within them, through which it may pass; and*
 - (b) *any hazards which such strata and formations may contain,*

to be assessed.

(2) *The well-operator shall ensure that account is taken of the assessment required by paragraph (1) when the well is being designed and constructed.*

(3) *The well-operator shall ensure that, while an operation (including the drilling of the well) is carried out in relation to the well, those matters described in sub-paragraphs (a) and (b) of paragraph (1) shall, so far as is reasonably practicable, be kept under review and that, if any change is observed in those matters, such modification is made, where appropriate, to –*

- (a) *the design and construction of the well; or*
- (b) *any procedures,*

as are necessary to ensure that the purposes described in regulation 13(1) will continue to be fulfilled.

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Guidance

Pre-design stage

25 The well-operator is required to take all appropriate steps to obtain predictions of the sub-surface environment which can be expected in the well. These should be

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Guidance

as accurate as possible; where information is limited they should identify potential 'worst case' conditions. These steps will help to ensure that the design of the well and the plan of work for any operations reduce the risks to people to as low as reasonably practicable.

26 So far as is reasonably practicable, all potential hazards and circumstances likely to lead to unsafe well conditions should be identified by the well-operator, including not only formations which may pose a hazard directly, but also those which may affect the ability to control a hazardous situation (eg potential loss zones, zones with the potential for causing stuck pipe and over-pressured plastic salt formations).

Post-design stage

27 Well-operators should ensure that sufficient measurement is taken of well conditions and sub-surface properties. This ensures that the predictions of the sub-surface environment continue to be valid and the design assumptions of the well continue to be suitable.

14

Regulation

Regulation 15 Design with a view to suspension and abandonment

The well-operator shall ensure that a well is so designed and constructed that, so far as is reasonably practicable –

- (a) *it can be suspended or abandoned in a safe manner; and*
- (b) *after its suspensions or abandonment there can be no unplanned escape of fluids from it or from the reservoir to which it led.*

15

Guidance

28 Regulation 15 reflects the life cycle approach taken to well safety in DCR, and consists of two distinct strands. First, the design and construction of the well should take account of the health and safety of the people involved in the process of suspending or abandoning it. Second, the design and construction of the well should take account of its continuing integrity after suspension and/or abandonment, so there are no unplanned escapes of fluids from it or its reservoir.

29 It is recognised that many elements of suspension and abandonment can only be decided at the time of suspension or abandonment, when actual conditions in the well can be fully assessed. However, elements which can be considered at the time of well design and during drilling will have an important bearing on the effectiveness of the subsequent suspension and/or abandonment.

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Regulation

Regulation 16 Materials

The well-operator shall ensure that every part of a well is composed of material which is suitable for achieving the purposes described in regulation 13(1).

16

Guidance

30 This regulation requires the well-operator to ensure that all materials used in the construction and any subsequent modifications to the well are suitable for purpose, to ensure the safety of the well and so reduce to as low as is reasonably practicable any risks to the health and safety of people. This requirement will apply not only to such items as cement, casing or other well tubulars, but also the well-head equipment, eg drilling spools, casing heads, tubing heads and the well control equipment listed under the definition of 'well' in regulation 2. Where PUWER applies to equipment or in the well, no additional requirements are imposed by this regulation.

16

Regulation

Regulation 17 Well control

(1) *Before an operation in relation to a well (including the drilling of a well) is begun elsewhere than at a borehole site to which the Borehole Sites and Operations Regulations 1995^(a) apply, the well-operator shall ensure that suitable well control equipment is provided for use during such operations to protect against blowouts.*

(2) *In the case of an operation to which paragraph (1) applies which is begun –*

- (a) *from an installation, the duty holder; and*
- (b) *otherwise than from an installation, the well-operator,*

shall ensure that equipment provided pursuant to paragraph (1) is deployed when the prevailing well and operational conditions so require.

(a) SI 1995/2038.

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Guidance

31 The duty on the well-operator to ensure that suitable well control equipment is provided before beginning any well operation does not extend to the design and maintenance etc of the equipment. These aspects are covered by other regulations, notably PUWER and regulation 13 of DCR.

32 The regulation applies to all wells drilled from or connected to an offshore installation and any well in territorial waters adjacent to Great Britain or on the UK Continental Shelf drilled in connection with the exploration for, or exploitation of, oil and natural gas. It does not apply to land wells in Great Britain, where the equivalent provisions of the Boreholes Sites and Operations Regulations 1995 apply.

33 The regulation requires that well control equipment is provided for use during well operations. It applies to all operations carried out in a well, including the production of hydrocarbons.

34 Well control equipment includes equipment whose primary purpose is to prevent, control or divert the flow of fluids from the well. As such, well control equipment includes blowout preventers, downhole preventers, Christmas trees, wireline lubricators and stuffing boxes, rotating heads, tubing injection heads, circulating heads, internal blowout preventers and kelly cocks, choke and kill lines, choke manifolds and diverters. Plugs or other isolating devices installed in a borehole to prevent the well from flowing are also included.

35 Well-operators can make sure they are discharging their duty for ensuring the provision of well control equipment under this regulation, by reviewing the contractor's arrangements. This means taking reasonable steps to make sure that the contractor has the equipment specified for well control (eg checking that the necessary equipment is available at the site, asking the contractor providing equipment to produce evidence that the equipment to be provided is what is needed and is suitable for conditions in the well). If necessary, the well-operator should check that the contractor has suitable policies, procedures and management controls to ensure suitable equipment is supplied.

Regulation 17(2)

36 The requirement for deploying the well control equipment of the well is placed on the duty holder for the installation (who has primary responsibility for the safety

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Guidance

of the installation). In instances where the well operations are to be conducted from a vessel not defined as an offshore installation, the duty is placed on the well-operator. In the latter case, well-operators can discharge their duty by checking that the specialist contractor carrying out the operations has suitable policies, procedures and management controls for the installation, testing and use of the specified well control equipment. A similar approach may be used by the installation duty holder for equipment supplied and operated from an installation by third parties.

37 'Deployment' of well control equipment covers the installation and use of the equipment on the well.

38 Well control equipment should be deployed on all wells where there is a risk of release of flammable, explosive or toxic fluids or gases from the well. It should also be deployed where there is a risk of high pressure water flow.

39 The application of the duty structure in regulation 17(2) to certain stages in the life of a well involves two parties: the well-operator and the installation owner/operator. There will be certain activities in which they both bear part of the responsibility for safety, as the relevant factors would be within the control of one or the other, eg the possession of relevant design information (well-operator) or the hands-on control of vital equipment (installation duty holder). Co-operation between the two is therefore of considerable importance to the safety of well operations, and further information on this subject is provided in the guidance on regulation 20 (Co-operation).

17

Regulation

Regulation 18 Arrangements for examination

(1) Before the design of a well is commenced or adopted the well-operator shall make and put into effect arrangements relating to the well of a kind described in paragraph (2) or (where such arrangements already have effect in relation to another well) apply such arrangements, with any appropriate modifications, to the well.

(2) The arrangements referred to in paragraph (1) are arrangements in writing for such examinations, by independent and competent persons, of any part of the well, or similar well, information, or work in progress, and the making of such reports and recommendations, as are suitable for ensuring (with the assistance of such other measures as the well-operator takes) that the well is so designed and constructed, and is maintained in such repair and condition, that –

- (a) so far as is reasonably practicable, there can be no unplanned escape of fluids from the well; and*
- (b) risks to the health and safety of persons from it or anything in it, or in strata to which it is connected, are as low as is reasonably practicable.*

(3) The well-operator shall review and revise the arrangements as often as may be appropriate.

(4) The well-operator shall ensure that the arrangements, any revision of them, and reports and recommendations pursuant to them are kept at an address in Great Britain notified to the Executive, until the expiration of six months after the arrangements and any revision of them cease to be current.

(5) In the case of a well which, at the coming into force of these Regulations, is completed, the well-operator shall make and put into effect or (as the case may

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Regulation

be) apply the arrangements described in paragraph (1) within 1 year after such coming into force.

(6) In the case of a well, the design of which was commenced or adopted before the coming into force of these Regulations, but which is not, at such coming into force, completed, the well-operator shall make and put into effect or (as the case may be) apply the arrangements described in paragraph (1)

- (a) forthwith; or
- (b) within 1 year after such coming into force, in a case where a well consent was given not more than 1 year before such coming into force.

(7) For the purpose of this regulation a person shall be regarded as independent only where –

- (a) his examination will not involve the consideration by him of an aspect, of a thing liable to be examined, for which he bears or has borne such responsibility as might compromise his objectivity; and
- (b) he will be sufficiently independent of a management system, or of a part thereof, which bears or has borne any responsibility for an aspect, which he might consider, of a thing liable to be examined, to ensure that he will be objective in discharging his function.

(8) In this regulation “well consent” means a consent in writing of the Secretary of State for Trade and Industry to the commencement of drilling of the well required by paragraph (1) of

- (a) clause 19 of the model clauses contained in Schedule 4 to the Petroleum (Production) (Seaward Areas) Regulations 1988^(a);
- (b) clause 15 of the model clauses contained in Schedule 6 to the Petroleum (Production) (Landward Areas) Regulations 1991^(b);
- (c) clause 17 of the model clauses contained in Schedule 3 to the Petroleum (Production) (Landward Areas) Regulations 1995^(c),

in a case where the clause is, pursuant to the relevant Regulations, incorporated in a licence.

18

- (a) SI 1988/1213, to which there are amendments not relevant to these Regulations.
- (b) SI 1991/981; amended by SI 1992/1314.
- (c) SI 1995/1436

Guidance

40 The examination required by this regulation is intended to assure the well-operator that the well is designed and constructed properly, and is maintained adequately. It is essential for the examination to demonstrate that the pressure boundary of the well is controlled throughout the well’s life cycle and that the pressure containment equipment that forms part of the well is suitable for this purpose. It is not anticipated that examination schemes will necessarily rely on physical examination of wells. Schemes can make use of documentary evidence of well safety, providing the documents’ veracity can be relied on.

41 An independent and competent person, who is sufficiently knowledgeable and separate from the immediate line management of the well operations involved, should do the examination. This might be someone employed by the well-operator’s organisation. It is important that those carrying out examination work have appropriate levels of impartiality and independence from pressures, especially of a financial nature. Promotion, pay and reward systems should not compromise professional judgement. Regular contact with the people concerned should result in

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Guidance

a co-operative approach to developing an examination scheme which produces the desired assurances without undue delays or excessive paperwork.

42 Developing an examination scheme will be a continuing process and should be subject to ongoing monitoring and review. Any development which could affect the containment of the pressure boundary should be fed into the assessment process.

43 Details of the examination scheme and sufficient records should be kept to form an auditable trail showing what work has been done, its findings, any recommendations made and any work carried out as a result. The Regulations specify keeping records for a period of six months after the relevant scheme ceases to be current (for example, after the well has been abandoned). Earlier records pertinent to a new scheme should be retained as long as they are relevant.

Relationship between the requirements for a well examination scheme and those for verification of an installation

44 When a well is connected to a fixed or a mobile installation, there may be an overlap between the well examination scheme and the verification scheme for the installation. A full description of the provisions relating to the verification of installations may be found in the Offshore Installations (Safety Case) Regulations 2005. Where wells form part of such verification arrangements, the work carried out by the well-operator for the well examination scheme may be cited by the installation duty holder as part of those verification arrangements. Similarly, where part of a well (eg a blowout preventer) is covered by an installation's verification scheme, the well-operator may cite the arrangements as part of the well examination scheme. HSE does not expect this work to be repeated or duplicated. The well examination scheme does not cover equipment that falls outside the pressure boundary of the well. Where such equipment is deemed to be safety-critical, it would need to be included in the installation verification scheme.

Where a well is not attached to an installation, a separate well examination scheme will be required.

18

Regulation

Regulation 19 Provision of drilling etc information

(1) *Where an operation to which this paragraph applies is being carried out on a well the well-operator shall cause to be sent to the Executive, at such intervals as may be agreed or, failing agreement, at intervals of one week calculated from its commencement, a report comprising the following information –*

- (a) *the identifying number, and any slot number, of the well;*
- (b) *the name of any installation or vessel involved;*
- (c) *a summary of the activity in the course of the operation since its commencement, or the previous report;*
- (d) *the diameter and true vertical and measured depths of –*
 - (i) *any hole drilled; and*
 - (ii) *any casing installed;*
- (e) *the drilling fluid density immediately before making the report; and*
- (f) *in the case of an existing well, its current operational state.*

(2) *Paragraph (1) applies to –*

- (a) *a drilling operation;*
- (b) *a workover operation;*

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Regulation

19

- (c) *an abandonment operation;*
- (d) *an operation consisting in the completion of a well;*
- (e) *any other operation of a kind involving substantial risk of the unplanned escape of fluids from a well.*

Guidance

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45 This regulation requires the well-operator to report certain information regularly to HSE. Information to be provided includes start and end dates, the setting of casings and the depth achieved. Current operational state means the operational activity taking place at the end of the reporting period, eg 'drilling' or 'workover'; where operations have ceased, operational state would be 'completed', 'suspended' or 'abandoned' as appropriate.

Regulation

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Regulation 20 Co-operation

Every person who is, or is to be concerned (in whatever capacity) in an operation in relation to a well (including the drilling of a well) shall co-operate with the well-operator so far as is necessary to enable him to discharge his duties under regulations 1.3(1) and 17.

Guidance

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46 It is important that the well-operator, the installation operator/owner and other relevant contractors ensure that their management systems and operating procedures are sufficiently integrated to provide a safe system of work.

47 So, there are duties of co-operation between them. These are provided by the general health and safety provisions on co-operation, and the more specific duties of co-operation contained in other offshore legislation, ie SCR and regulation 8 of the Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995 (MAR).¹⁰ (Note that regulation 8 of MAR does not cover duties of co-operation owed towards well-operators.)

48 This regulation introduces a further offshore-specific duty of co-operation in relation to wells. It has been introduced with respect to regulations 13(1) and 17, for which co-operation is particularly important. This does not, however, imply that co-operation is not important with respect to other well duties, where the more general co-operation duties will continue to apply.

Regulation

21

Regulation 21 Information, instruction, training and supervision

In the case of a drilling, well intervention or workover operation to be carried out on a well –

- (a) *from an installation, the duty holder, and*
- (b) *otherwise than from an installation, the well-operator,*

shall ensure that the operation is not carried out, unless it is carried on in circumstances where the persons carrying out the operation –

- (a) *have received such information, instruction and training; and*
- (b) *are being so supervised, that the risk to health and safety from such operation is reduced to the lowest level that is reasonably practicable.*

Guidance

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49 There are general requirements on employers in this area, which arise from other health and safety legislation, eg Section 2 of HSWA, regulations 7, 8 and 9 of PUWER and regulations 8, 10, 12 and 13 of MHSWR. They all apply in the

Guidance

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offshore sector. Further information on these provisions may be found in the Health and Safety at Work etc Act 1974, the Provision and Use of Work Equipment Regulations 1998 and Approved Code of Practice, and the Management of Health and Safety at Work Regulations 1999 and Approved Code of Practice.

50 Regulation 21 sets duties in addition to the general duties described above. It requires the installation duty holder or well-operator (where the well is being worked on other than from an installation) to ensure that all staff are capable of carrying out the tasks allocated to them. Such duty holders can discharge their duties for personnel and third parties other than their own by checking that specialist contractors carrying out operations have suitable policies, procedures and management controls for the operations foreseen.

51 The regulation seeks to promote competence in those carrying out well operations by ensuring that they receive appropriate training (including on-the-job training), initial and refresher, information and appropriate supervision. This requirement replaced those contained in the Offshore Installations (Well Control) Regulations 1980, which DCR revoked. There is no longer a legal requirement for certain categories of staff to have a certificate confirming they have an adequate knowledge of well control techniques (although this can be an acceptable means of demonstrating compliance with relevant aspects of the duties).

52 This requirement covers well operations conducted from installations, from ships and at land sites.

Regulation

23

Regulation 23 Certificates of exemption

(1) Subject to paragraph (2) and to any of the provisions imposed by the Communities in respect of the encouragement of improvements in the safety and health of workers at work, the Executive may, by a certificate in writing, exempt any person, installation, well or class of persons, installations or wells from any requirement or prohibition imposed by these Regulations and any such exemption may be granted subject to conditions and with or without limit of time and may be revoked by a certificate in writing at any time.

(2) The Executive shall not grant any such exemption unless, having regard to the circumstances of the case and, in particular, to –

- (a) the conditions, of any, which it proposes to attach to the exemption; and*
- (b) any other requirements imposed by or under any enactments which apply to the case,*

it is satisfied that the health and safety of persons who are likely to be affected by the exemption will not be prejudiced in consequence of it.

Regulation

27

Regulation 27 Revocation

The instruments specified in column 1 of Schedule 3 are hereby revoked to the extent specified in column 3 of the Schedule.

Schedule 3 Revocation

Regulation 27

<i>(1) Title</i>	<i>(2) Reference</i>	<i>(3) Extent of revocation</i>
The Offshore Installations (Construction and Survey) Regulations 1974	SI 1974/289	The whole Regulations
The Offshore Installations (Operational Safety, Health and Welfare) Regulations 1976	SI 1976/1019	Regulations 4 and 5; in regulation 6(1) the words “without prejudice to the generality of regulation 5 above”; regulations 14 and 15; Parts I and 11 of Schedule 1; and Schedule 4
The Offshore Installations (Well Control) Regulations 1980	SI 1980/1759	The whole Regulations
The Offshore Installations (Well Control) (Amendment) Regulations 1991	SI 1991/308	The whole Regulations

Appendix 1 List of abbreviations

BOP	Blowout preventer
BSOR	Borehole Sites and Operations Regulations 1995
DCR	Offshore Installations and Wells (Design and Construction, etc) Regulations 1996
HSWA	Health and Safety at Work etc Act 1974
MAR	Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995
MHSWR	Management of Health and Safety at Work Regulations 1999
PFFER	Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995
PUWER	Provision and Use of Work Equipment Regulations 1998
SCR	Offshore Installations (Safety Case) Regulations 2005

Appendix 2 References and further reading

- 1 *A guide to the integrity, workplace environment and miscellaneous aspects of the Offshore Installations and Wells (Design and Construction etc) Regulations 1996. Guidance on Regulations* L85 HSE Books 1996 ISBN 978 0 7176 1164 5
- 2 *The Borehole Sites and Operations Regulations 1995* SI 1995/2038 The Stationery Office 1995 ISBN 978 0 11 053317 9
- 3 *The Offshore Installations (Safety Case) Regulations 2005* SI 2005/3117 The Stationery Office 2005 ISBN 978 0 11 073610 5
- 4 *A guide to the Offshore Installations (Safety Case) Regulations 2005. Guidance on Regulations* L30 (Third edition) HSE Books 2006 ISBN 978 0 7176 6184 8
- 5 *A guide to Borehole Sites and Operations Regulations 1995. Guidance on Regulations* L72 HSE Books 1995 ISBN 978 0 7176 1007 5
- 6 *Health and Safety at Work etc Act 1974 (c.37)* The Stationery Office 1974 ISBN 978 0 10 543774 1
- 7 *Management of health and safety at work. Management of Health and Safety at Work Regulations 1999. Approved Code of Practice and guidance* L21 (Second edition) HSE Books 2000 ISBN 978 0 7176 2488 1
- 8 *Prevention of fire and explosion and emergency response on offshore installations. Offshore Installations (Prevention of Fire and Explosion and Emergency Response) Regulations 1995. Approved Code of Practice and guidance* L65 HSE Books 1997 ISBN 978 0 7176 1386 1
- 9 *Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance* L22 (Second edition) HSE Books 1998 ISBN 978 0 7176 1626 8
- 10 *A guide to the Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995. Guidance on Regulations* L70 (Second edition) HSE Books 2002 ISBN 978 0 7176 2572 7

Further reading

Control of substances hazardous to health (Fifth edition). The Control of Substances Hazardous to Health Regulations 2002 (as amended). Approved Code of Practice and guidance L5 (Fifth edition) HSE Books 2005 ISBN 978 0 7176 2981 7

Manual handling. Manual Handling Operations Regulations 1992 (as amended). Guidance on Regulations L23 (Third edition) HSE Books 2004 ISBN 978 0 7176 2823 0

Personal protective equipment at work (Second edition). Personal Protective Equipment at Work Regulations 1992 (as amended). Guidance on Regulations L25 (Second edition) HSE Books 2005 ISBN 978 0 7176 6139 8

The public enquiry into the Piper Alpha disaster (Cullen Report), Cm 1310
Department of Energy 1990 The Stationery Office ISBN 978 0 10 113102 5
(2 volumes)

The Supply of Machinery (Safety) Regulations 1992 SI 1992/3073 The Stationery
Office 1992 ISBN 978 0 11 025719 8

The Supply of Machinery (Safety) (Amendment) Regulations 1994 1994/2063
The Stationery Office 1994 ISBN 978 0 11 045063 6

*Work with ionising radiation. The Ionising Radiations Regulations 1999. Approved
Code of Practice and guidance* L121 HSE Books 2000 ISBN 978 0 7176 1746 3

*Workplace health, safety and welfare. Workplace (Health, Safety and Welfare)
Regulations 1992. Approved Code of Practice* L24 HSE Books 1992
ISBN 978 0 7176 0413 5

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