Enabling Statute: Canada Oil and Gas Operations Act

Canada Oil and Gas Production and Conservation Regulations (SOR/90-791)

Regulation current to June 22nd, 2008

Canada Oil and Gas Production and Conservation Regulations

SOR/90-791

Registration November 22, 1990

CANADA OIL AND GAS OPERATIONS ACT

Canada Oil and Gas Production and Conservation Regulations

P.C. 1990-2473 November 22, 1990
Whereas a copy of the proposed Regulations respecting safety, conservation practices and the prevention of pollution in operations undertaken for the production of oil and gas in parts of Canada under the Oil and Gas Production and Conservation Act* was published in the Canada Gazette Part I on June 30, 1990, pursuant to section 15 of the Oil and Gas Production and Conservation Act* and a time period of 60 days was thereby afforded to interested persons to make representations with respect thereto;* R.S., c. O-7

And Whereas 60 days have elapsed since the date of publication and no representation has been made to the Minister of Energy, Mines and Resources and the Minister of Indian Affairs and Northern Development;

Therefore, His Excellency the Governor General in Council, on the recommendation of the Minister of Energy, Mines and Resources and the Minister of Indian Affairs and Northern Development, pursuant to sections 5, 5.1, 14, 61 and 72 of the Oil and Gas Production and Conservation Act*, is pleased hereby to make the annexed Regulations respecting safety, conservation practices and the prevention of pollution in operations undertaken for the production of oil and gas in the parts of Canada under the Oil and Gas Production and Conservation Act.

Regulations Respecting Safety, Conservation Practices and the Prevention of Pollution in Operations Undertaken for the Production of Oil and Gas in the Parts of Canada Under the Oil and Gas Production and Conservation Act

SHORT TITLE

1. These Regulations may be cited as the Canada Oil and Gas Production and Conservation Regulations.

INTERPRETATION

2. In these Regulations,

"accommodation installation" means an installation that is used to accommodate persons at a production site or drill site and that functions independently of a production installation, drilling installation or diving installation, and includes any associated dependent diving system; (installation d’habitation)

"Act" means the Canada Oil and Gas Operations Act; (Loi)

"API" means the American Petroleum Institute; (API)

"artificial island" means an island constructed by a person to provide a site for the exploration and drilling for, or the production, storage, transportation, distribution, measurement, processing or handling of, oil or gas; (île artificielle)

"certificate of fitness" means a certificate issued by a certifying authority in accordance with section 4 of the Canada Oil and Gas Certificate of Fitness Regulations; (certificat de conformité)

"certifying authority" has the same meaning as in section 2 of the Canada Oil and Gas Certificate of Fitness Regulations; (société d’accréditation)

"Chief" means the Chief Safety Officer or the Chief Conservation Officer, as applicable in accordance with the Act; (délégué)

"completion interval" means an interval through which fluid enters or leaves a wellbore; (intervalle d’achèvement)

"delineation well" means a well drilled for the purpose of obtaining information with respect to the extent of a pool or field or the properties of the associated rock and fluids; (puits de délimitation)

"dependent accommodation" means accommodation that is associated with an installation other than an offshore accommodation installation and that does not function independently of the installation; (logement connexe)

"dependent diving system" means a diving system that is associated with an installation other than a diving installation and that does not function independently of the installation; (système de plongée non autonome)

"dependent personnel accommodation" [Repealed, SOR/2002-170, s. 12]

"development well" means a well that is drilled in a pool or field for the purpose of

(a) producing fluids from the well,

(b) observing the performance of a reservoir,

(c) injecting fluids into the well, or

(d) disposing of fluids into the well; (puits de mise en valeur)

"diving installation" means a diving system and any associated vessel that functions independently of an accommodation installation, production installation or drilling installation; (installation de plongée)

"diving system" means the plant or equipment used in or in connection with a diving operation, and includes the plant and equipment that are essential to a diver or to a pilot of a manned submersible; (système de plongée)

"drilling installation" means a drilling unit or a drilling rig and its associated drilling base, and includes any associated diving system; (installation de forage)

"export pipeline" means a pipeline that transports oil or gas from an offshore facility to shore or from an onshore facility in a province to a location outside that province; (pipeline d'exportation)

"flowline" means a pipeline that is used to transport fluids from a well to a production facility or vice versa, and includes intrafield export and all gathering lines; (conduite d'écoulement)

"fluid" means gas or liquid, or gas and liquid in combination; (fluide)

"gas pool" means a pool that contains hydrocarbons predominantly in a gaseous (single phase) state; (gisement de gaz)

"gas well" means a well that produces gas from a gas pool or from the gas cap portion of an oil pool; (puits de gaz)

"injection line" means a pipeline that is used to transport fluid to an injection well or a disposal well; (conduite d'injection)

"injection well" means a well that is used for the injection of fluids into a pool or field; (puits d'injection)

"installation" means a diving installation, a drilling installation, a production installation or an offshore accommodation installation; (installation)

"natural environment" means the physical and biological environment in the area of a production project; (milieu naturel)

"offshore accommodation installation" means an accommodation installation at an offshore production site; (installation d'habitation au large des côtes)

"offshore production installation" means a production installation at an offshore production site; (installation de production extracôtière)

"offshore production site" means a production site that is covered by water and is not an island, artificial island or ice platform; (emplacement de production extracôtière)

"oil pool" means a pool that contains hydrocarbons primarily in a liquid (single phase) state; (gisement de pétrole)

"oil well" means a well that produces oil from an oil pool; (puits de pétrole)

"onshore production installation" means a production installation at an onshore production site; (installation de production sur terre)

"onshore production site" means any production site that is not an offshore production site; (emplacement de production sur terre)

"operator" means a person that has applied for or has been given a production operations authorization; (exploitant)

"physical environmental conditions" means meteorological, oceanographic and related physical conditions, including ice conditions, that could affect an operation authorized pursuant to these Regulations; (conditions environnementales)

"pilot scheme" means a production system that applies existing or experimental technology over a limited portion of a pool to obtain information on reservoir or production performance for the purpose of optimizing field development or improving reservoir or production performance; (projet-pilote)

"production casing" means a casing installed in a wellbore for production or injection purposes; (colonne de production)

"production crew" means, with respect to an operator, the operator's authorized personnel whose primary duties consist of operating a production installation; (équipe de production)

"production facility" means equipment for the production of oil or gas located at a production site, including separation, treating and processing facilities, equipment and facilities used in support of production operations, landing areas, heliports, storage areas or tanks and, when not operating independently, on-site accommodations, but not including an associated platform, artificial island, subsea production system, drilling equipment, diving system or export pipeline; (matériel de production)

"production installation" means a production facility, including any associated platform, artificial island, subsea production system, offshore loading system, drilling equipment, facilities related to marine activities and dependent diving system; (installation de production)

"production operation" means any operation that is related to the production of oil or gas from a pool or field; (travaux de production)

"production operations authorization" means an authorization to conduct production operations that is given to an operator by the National Energy Board pursuant to paragraph 5(1)(b) of the Act; (autorisation d'exécuter des travaux de production)

"production project" means an undertaking for the purpose of developing a production site or for the purpose of producing oil or gas from a pool or field, and includes all related activities; (projet de production)

"production riser" means any conduits used to convey fluids to or from a production installation and includes production, injection, export, control and instrumentation lines; (tube prolongateur de production)

"production site" means a location where a production installation is or is proposed to be installed; (emplacement de production)

"production test" means a test conducted for the purpose of determining the relationship between the bottom hole flowing pressure and the rate at which the reservoir fluids are produced from a well; (essai de production)

"production zone" means a production interval of a pool that is stratigraphically defined; (zone de production)

"recovery" means the recovery of oil or gas taking into account forseeable economic and operational conditions; (récupération)

"scope of work" means the plan of activities carried out by a certifying authority and approved by the Chief Safety Officer pursuant to section 6 of the Canada Oil and Gas Certificate of Fitness Regulations, for the purposes of issuing a certificate of fitness; (plan de travail)

"subsea production system" means equipment and structures that are located on or below or buried in the seafloor for the production of oil or gas from or for the injection of fluids into a field under an offshore production site and includes production risers, flowlines and associated production control systems; (système de production sous-marin)

"support craft" means a vessel, vehicle, tug, ship, aircraft, air cushion vehicle, standby vessel or other craft that is used to provide transportation for or assistance to persons at a production site; (véhicule de service)

"waste material" means any garbage, refuse, sewage or waste well fluids or any other useless material that is generated during a production operation or a production project; (déchets)

"workover" means any remedial operation that is carried out on a production well, an injection well, a disposal well or an observation well to restore, increase or alter the rate of production or injection, and includes recompletion. (reconditionnement)

SOR/96-115, s. 1; SOR/2002-170, s. 12.

APPLICATION

3. These Regulations apply

(a) to every operator who develops a production site or produces oil or gas in any area to which the Act applies; and

(b) in respect of every production operation in any area to which the Act applies.

SOR/2002-170, s. 13(F).

SUBMISSION OF INFORMATION

4. Any information that is required to be submitted under these Regulations, other than an application for the approval of a development plan, pursuant to section 5.1 of the Act or for a production operations authorization, shall be prepared and submitted in a form and manner that is satisfactory to the Chief.

PART I

APPROVALS AND AUTHORIZATIONS

General

5. (1) The Approval to Drill granted in respect of a development well pursuant to Part II of the Canada Oil and Gas Drilling Regulations is prescribed as an approval for the purpose of subsection 5.1(1) of the Act.

(2) No person shall develop a pool or field except in accordance with a development plan that relates to the pool or field and that was approved pursuant to section 5.1 of the Act and in accordance with the requirements referred to in subsection 5.1(4) of the Act that are applicable to that development plan.

SOR/96-115, s. 2.

6. An operator shall, pursuant to section 5.1 of the Act, apply for the approval of an alteration or amendment of an approved development plan where

(a) the operator proposes to

(i) make significant changes in respect of the nature or timing of the development activities of the pool or field or substantial changes or additions to existing facilities of the pool or field, or

(ii) initiate, in the pool or field, a pilot scheme or other production system that differs from the production system set out in the approved development plan;

(b) the pool performance or new geological information shows that the recovery method needs to be changed to achieve the maximum recovery of reserves of oil or gas from the pool or field; or

(c) an increased ultimate recovery of reserves of oil or gas from the pool or field would be economically obtainable by adopting new technology or methodology.

SOR/2002-170, s. 14(F).

7. (1) A production operations authorization in respect of a pool or field is required before the commencement of production of oil or gas from that pool or field.

(2) For greater certainty, a production operations authorization is not required in respect of activities related to

(a) formation flow testing referred to in section 197 of the Canada Oil and Gas Drilling Regulations;

(b) extended formation flow testing referred to in section 5.6 of the Act; or

(c) production testing.

(3) Before an operator commences production of oil or gas from a pool or field, the operator shall submit a survey to the Chief showing the location of the production site.

SOR/2002-170, s. 15.

Development Plan Approval

8. (1) A person who applies to the National Energy Board for the approval of a development plan or of an alteration or amendment to a development plan shall do so by submitting five copies of the development plan to the Chief.

(2) For the purposes of paragraph 5.1(3)(a) of the Act, the information in Part I of a development plan shall contain:

(a) with respect to the production system and alternative production systems, a summary of the results of studies and evaluations carried out in selecting the production system; and

(b) with respect to the transportation of oil or gas from the pool or field, a description of the method proposed and the alternatives considered.

(3) For the purposes of paragraph 5.1(3)(b) of the Act, Part II of a development plan shall contain:

(a) the results of geological studies;

(b) reservoir engineering studies, including rock and fluid data and analyses;

(c) production engineering information and studies;

(d) a conceptual plan for the completion of wells;

(e) the results of environmental studies and analyses;

(f) plans for the treatment and disposal of waste material;

(g) development cost data;

(h) information relating to matters of conservation, safety of operations, pollution prevention and the restoration of the site;

(i) a description of the production installation to be used; and

(j) in relation to the scope of work to be conducted by the certifying authority in respect of the production installation,

(i) the expected duration of the scope of work,

(ii) the estimated fees of the certifying authority,

(iii) a description of and schedule for the major milestones that are to be met in the certification process, and

(iv) the procedure and format for monthly reports to the Chief.

SOR/96-115, s. 3; SOR/2002-170, s. 16.

Production Operations Authorization

9. (1) An operator may apply for a production operations authorization relating to a pool or field or a portion of one by submitting to the Chief five copies of a completed application form prescribed by the National Energy Board containing the information prescribed by the National Energy Board.

(2) A production operations authorization is subject to the requirement that the Chief Conservation Officer or Chief Safety Officer approve, pursuant to subsection 60(4), a safety plan, an environmental protection plan, and in respect of every production installation at an offshore production site where there may be pack sea ice, drifting icebergs or an ice island, an ice management plan.

(2.1) A Production Operations Authorization given in respect of an offshore production site is subject to the issuance of and continued force and validity of a certificate of fitness for each production installation, accommodation installation and diving installation located at that site.

(3) A production operations authorization is subject to the operator carrying out the operations in accordance with the plans approved pursuant to subsection 60(4).

SOR/96-115, s. 4; SOR/2002-170, s. 17.

Conditions of Approval

10. (1) Where, pursuant to subsection 13(3), 14(2), 15(4), 19(3), 29(2), 30(2), 31(2), 32(2), 33(5), 34(4), 36(5), 62(3), 68(5) or 71(2), the Chief Conservation Officer or Chief Safety Officer grants an approval, the Chief Conservation Officer or Chief Safety Officer may grant the approval subject to such conditions relating to safety, protection of the natural environment or conservation of oil or gas as the Chief Conservation Officer or Chief Safety Officer considers necessary.

(2) An operator shall comply with any condition imposed under subsection (1).

(3) The Chief Conservation Officer or Chief Safety Officer may suspend or revoke any approval referred to in subsection (1) for a failure to comply with or a contravention of any condition subject to which the approval is granted.

SOR/2002-170, s. 18.

Evidence of Financial Responsibility

11. As a requirement of any authorization by the National Energy Board pursuant to paragraph 5(1)(b) of the Act to carry on a work or activity in relation to the development of a pool or field or the production of oil or gas, the operator shall, before the work or activity is started,

(a) furnish the National Energy Board with proof of financial responsibility, in a form and in an amount satisfactory to the National Energy Board, for the purpose of ensuring that the operator

(i) completes the work or activity, and

(ii) leaves the site at which the work or activity was carried on in the state required by the development plan relating to the pool or field approved pursuant to section 5.1 of the Act; and

(b) furnish the National Energy Board with proof, in a form and amount satisfactory to the National Energy Board, that the operator is able to meet any financial liability that might be incurred in connection with the work or activity.

SOR/2002-170, s. 19.

PART II

WELL, POOL AND FIELD EVALUATIONS

General

12. Where an operator carries out an evaluation of a well located in a pool or field, the operator shall, in addition to complying with Parts VI and VII of the Canada Oil and Gas Drilling Regulations, carry out the evaluation in accordance with this Part.

SOR/2002-170, s. 20.

Cores

13. (1) Where it is technically feasible to core and the coring could contribute to the evaluation of a pool or field, the operator shall core a delineation well in the reservoir interval of the pool or field.

(2) No operator shall commence drilling a development well in a pool unless

(a) the operator submits a development well coring program in respect of the pool to the Chief; and

(b) the Chief approves the program referred to in paragraph (a).

(3) The Chief shall approve a development well coring program submitted pursuant to paragraph (2)(a) in respect of a pool where the Chief is satisfied that the program will provide sufficient geological and reservoir data to evaluate the pool.

(4) The operator shall carry out routine and special core tests required by the program referred to in subsection (2) on samples taken from the cores recovered in accordance with subsection (1) or the program referred to in subsection (2).

SOR/2002-170, s. 21.

Production Testing

14. (1) Before an operator puts a development well into production or carries out a production test on a delineation well or a development well, the operator shall submit to the Chief

(a) a testing program in respect of the well; or

(b) a testing program that has already been approved in respect of another well and that the operator plans to use in respect of the well.

(2) The Chief shall approve a testing program submitted pursuant to subsection (1) where the Chief is satisfied that the program will enable the production test to realize the goals set out in subsection (3).

(3) Unless a testing program approved by the Chief, pursuant to subsection (2), requires otherwise, the operator of a development well shall carry out an initial production test on the well before it is put into production to

(a) obtain data on the deliverability or productivity of the well;

(b) determine the characteristics of the reservoir; and

(c) obtain representative samples of the fluids present in the well.

(4) Where a well is subjected to a workover that could change the deliverability or productivity of the well, the operator of the well shall, forthwith after the workover is completed, test the well to determine the effects of the workover on the deliverability or productivity of the well.

(5) Where the operator of a well tests and evaluates the well, the operator shall do so in accordance with the testing program approved pursuant to subsection (2).

(6) Where a conservation officer requests the operator of a delineation well or a development well to inform the conservation officer of any production test in respect of the well a minimum of 48 hours before the operator commences the test, the operator shall so inform the conservation officer.

(7) The operator of a well shall immediately submit to the Chief a copy of the results of every production test that the operator carries out in respect of the well.

SOR/2002-170, s. 22.

Pool Pressure Surveys or Measurements

15. (1) Before an operator commences production from a completion interval of a development well, the operator shall determine the static pressure of the pool or field at the completion interval.

(2) Subject to subsection (4), the operator shall carry out a pressure survey

(a) 12 months after the pool or field is initially put into production; and

(b) at least once every 12 months after a pressure survey is conducted pursuant to paragraph (a).

(3) An operator shall, at least 60 days before carrying out a pressure survey referred to in subsection (2), submit to the Chief a pressure survey program that indicates the method of surveying and the location of a sufficient number of wells to be shut in so as to allow for an accurate determination of the pool or field static pressure.

(4) The Chief

(a) shall approve a pressure survey program submitted pursuant to subsection (3) where the Chief is satisfied that the implementation of the program will produce an accurate determination of the static pressure in the pool or field; and

(b) may, at the request of the operator, approve survey times that are different from the times referred to in subsection (2) where the Chief is satisfied that a different time schedule is justified by operational factors.

(5) Where an operator carries out a pool pressure survey, the operator shall do so in accordance with

(a) the pressure survey program approved pursuant to subsection (4); and

(b) the Alberta Energy and Utilities Board Guide G 40, Pressure and Deliverability Testing Oil and Gas Wells, dated June 1997, as amended from time to time.

(6) Where an operator measures the fluid level of a well, the operator shall do so in accordance with Alberta Energy Resources Conservation Board Guide G-5, Calculating Subsurface Pressure Via Fluid-Level Recorders, Second Edition (December 1978), as amended from time to time.

SOR/2002-170, s. 23.

Production Logs

16. (1) The operator of a production well or an injection well shall run a production log of the well if it is technically feasible to do so and would contribute significantly to the evaluation of the pool in which the well is located.

(2) Where, pursuant to subsection (1), an operator runs a production log, the operator shall immediately submit a copy of the log to the Chief.

SOR/2002-170, s. 24.

Fluid Sampling and Analysis

17. (1) Where the operator of a pool completes a delineation well in the pool, the operator shall immediately

(a) take from the delineation well a subsurface sample of reservoir fluids; or

(b) where it is not feasible to take a subsurface sample from the delineation well, take a sample of the produced fluids at the surface of the well and recombine them under the initial reservoir conditions.

(2) The operator of a pool shall obtain and analyze samples of oil, gas and water collected at the surface of a sufficient number of wells to determine the composition of the fluids in the pool

(a) at least once every 12 months; and

(b) whenever there is reason to believe that the composition of a fluid produced from the pool has changed.

(3) An operator shall obtain the samples referred to in subsection (2) and analyze the fluids in those samples in accordance with the API Recommended Practice for Sampling Petroleum Reservoir Fluids, API RP 44, First Edition (January 1966), as amended from time to time.

(4) The operator of an oil well shall install, at appropriate locations, proportional samplers or fluid analyzers to determine when the water production from the well exceeds ten per cent of the liquids produced.

(5) The operator of a gas well shall

(a) determine, in accordance with good production practices, whether formation water is being produced from the well;

(b) if formation water is produced from the well, establish and implement a procedure to measure the rate of production of the formation water; and

(c) on request, submit to the Chief the results of the procedure implemented pursuant to paragraph (b).

(6) Where water is produced in a well after the well is put into production, the operator of the well shall collect samples from the well and analyze them to determine the probable source of the water.

(7) Where an operator analyses water samples collected pursuant to subsection (1), (4) or (6), the operator shall analyze the samples in accordance with the API Recommended Practice for Analysis of Oil Field Water, API RP 45, Second Edition (November 1968), as amended from time to time.

(8) The operator of a pool shall provide the Chief with the results of a compositional analysis of representative fluid from the pool and a description of the general physical properties of the gas and liquid components of the fluid, including the information described in section 11.070 of the Oil and Gas Conservation Regulations of Alberta AR 151/71, as amended from time to time.

(9) Except in the case set out in subsection (5), every operator shall submit the initial results of all laboratory analyses conducted pursuant to this section to the Chief immediately after the analyses have been completed.

SOR/2002-170, s. 25.

PART III

DEVELOPMENT WELL OPERATIONS

General

18. (1) The operator of a development well shall, in addition to complying with section 220 of the Canada Oil and Gas Drilling Regulations, complete and operate the well in a manner that is consistent with good engineering practices and that provides for

(a) the integrity of the well and the equipment used at the well for production purposes;

(b) the safe operation of the well;

(c) the protection of the environment;

(d) the evaluation and monitoring of the performance of the well; and

(e) the efficient recovery of oil and gas from the well.

(2) The operator of a development well shall, where practicable, correct immediately any mechanical well condition that may have an adverse effect on production from or injection into the well.

(3) The operator of a development well shall improve the injection or production profile of the well or alter the completion interval of the well where it is necessary to do so to avoid significant loss in the ultimate recovery of oil or gas from the pool in which the well is located.

(4) Where different pressure and inflow characteristics of the pools could adversely affect the recovery of oil or gas from any one of those pools as a result of interflow between the pools, the operator of a well that enters more than one pool shall complete the well as a single-pool well or a segregated multi-pool well or in any other manner that minimizes, to the greatest extent possible, the interflow between the pools.

(5) The operator of a segregated multi-pool well shall

(a) after the well is completed, carry out a segregation test to confirm that segregation has been established within and outside the well casing; and

(b) carry out a segregation test forthwith where the operator has reason to doubt that segregation is being maintained.

Approvals for Downhole Operations

19. (1) Subject to subsections (4) and (5), no operator shall undertake any of the following operations in respect of a development well except in accordance with an approval granted by the Chief pursuant to subsection (3):

(a) a workover;

(b) a wireline operation; or

(c) a stimulation treatment.

(2) An operator shall apply for an approval referred to in subsection (1) by submitting to the Chief, at least 21 days before the operation is to commence, an application in the form and manner specified by the Chief that sets out the procedure to be followed, the equipment to be used and the identity of the person authorized to carry out the operation.

(3) The Chief shall approve an operation referred to in subsection (1) for which an application has been made pursuant to subsection (2) where the Chief is satisfied that the operation will be carried out in a safe manner and will not adversely affect the ultimate recovery of oil or gas from the pool in which the well is situated.

(4) Subsection (1) does not apply in respect of a wireline operation conducted through a Christmas tree that is located above sealevel, where the operation will not

(a) alter the completion interval; or

(b) adversely affect the ultimate recovery of oil or gas from the pool in which the well is situated.

(5) An operator may, without obtaining an approval, carry out an operation referred to in subsection (1) if that operation needs to be carried out to avoid losing control of a well and if the need for the operation becomes evident less than 21 days before it needs to be carried out.

SOR/2002-170, s. 26.

Posting Approvals

20. Every operator shall ensure that a copy of any approval granted in respect of a development well pursuant to section 19 is posted at the production installation from which the operation is conducted.

SOR/2002-170, s. 27.

Reports

21. An operator shall submit to the Chief daily reports of an operation conducted pursuant to subsection 19(5) and an operation carried out pursuant to an approval granted under section 19 that includes

(a) a daily summary of the operation and any problems encountered;

(b) a schematic diagram of and relevant engineering data on downhole equipment, tubulars, the Christmas tree and the production control system; and

(c) information on the composition and physical properties of the completion fluid.

SOR/2002-170, s. 28.

22. [Repealed, SOR/2002-170, s. 28]

Production Casing and Tubing

23. (1) The operator of a well shall ensure that the production casing and tubing used in the well are designed to

(a) permit the well completion to be carried out efficiently and safely;

(b) permit the installation of artificial lift equipment wherever there is reason to believe that artificial lift equipment might be required to maintain flow rates; and

(c) withstand the conditions that may have a detrimental effect on the structural integrity of the production casing and tubing.

(2) The operator of a well shall ensure that the production casing used in the well is equipped and cemented in a manner that provides for good cement bonding across the production zone to a minimum of 60 m above the zone and to a minimum of 30 m below the zone or to the guide shoe of the production casing, whichever is the lesser.

(3) The operator of a well shall, in addition to complying with sections 63 to 73 of the Canada Oil and Gas Drilling Regulations, ensure that the height of cement behind the intermediate casing and production casing of the well is adequate to allow for

(a) protection against external corrosion of the casing;

(b) forces that could result from the injection of fluids into the tubing-casing annulus; or

(c) any phenomena that could impose forces on the uncemented section of the casing that could exceed the design stress limits of the casing.

(4) The operator of a well shall, on request, provide the Chief with evidence satisfactory to the Chief that the production casing and tubing requirements of these Regulations have been met with respect to the well.

(5) The operator of a well shall ensure that production casing and tubing used in the well are tested, after the initial installation and after every workover, to the maximum pressure to which the casing and tubing are likely to be subjected.

SOR/2002-170, s. 29.

Casing Annuli

24. (1) The operator of a well shall ensure that

(a) the fluids used in completion or workover operations on the well are of a type that minimizes detrimental effects on the production zone and subsurface equipment; and

(b) the casing annulus of the well is equipped to allow for the venting of the well.

(2) The operator of a well shall install a packer in the well where the well

(a) is at an offshore production site;

(b) is required by section 25 to be equipped with a subsurface safety valve; and

(c) could have casing annulus pressures exceeding 13 MPa.

SOR/2002-170, s. 30.

Subsurface Safety Valve

25. (1) The operator of a well shall ensure that

(a) in the case of a well at an offshore production site, the well is equipped with a subsurface safety valve installed at least 30 m below the seafloor or the bottom of a body of fresh water; and

(b) in the case of a well at an onshore production site capable of flowing without artificial lift equipment, the well is equipped with a subsurface safety valve where the well is

(i) within such a distance of an occupied dwelling that the dwelling or its occupants could reasonably be endangered by a blowout, having regard to the flow rate and shut-in pressure of the well,

(ii) producing gas that has a hydrogen sulphide content that exceeds 50 moles per kilomole by volume, or

(iii) located in an area in which there is an unusually high risk of damage to the well or in which damage to the environment resulting from a spill would be severe.

(2) Where a well is located in an area in which permafrost is present in unconsolidated sediments, the operator of the well shall install a subsurface safety valve at least 30 m below the base of the permafrost.

(3) The operator of a well referred to in subsection (1) or (2) shall not operate the well unless the specifications, design, installation, operation and testing of each subsurface safety valve installed on the well is in accordance with the API Specification for Subsurface Safety Valve Equipment, API Spec 14A, Seventh Edition (January 1988), as amended from time to time, and the API Recommended Practice for Design, Installation and Operation of Subsurface Safety Valve Systems, API RP 14B, Second Edition (November 1981), as amended from time to time.

(4) Where a surface-controlled subsurface safety valve is installed in a well, the operator of the well shall

(a) test the valve in place immediately after the installation; and

(b) test the valve at least once every six months after the test referred to in paragraph (a).

(5) No operator shall produce oil or gas from a well equipped with a subsurface safety valve that is not in good working condition.

SOR/2002-170, s. 77(F).

Wellhead and Christmas Tree Equipment

26. (1) The operator of a well shall ensure that the wellhead and Christmas tree equipment

(a) in the case of a well at an offshore production site, conforms to the API Recommended Practice for Design and Operation of Subsea Production Systems, API RP 17A, First Edition (September 1, 1987), as amended from time to time;

(b) in the case of a well at an onshore production site, conforms to the API Specification for Wellhead and Christmas Tree Equipment, API Spec 6A, Sixteenth Edition (October 1, 1989), as amended from time to time;

(c) has a pressure rating that is greater than the maximum pressure to which the wellhead and Christmas tree equipment is likely to be subjected;

(d) is designed to withstand relevant temperature, corrosion and physical environmental conditions;

(e) is designed to withstand forces caused by production casing and tubing elongation; and

(f) subject to subsection (2), has two master valves.

(2) The Christmas tree need have only one master valve if the well is a low-pressure well that produces sweet hydrocarbons or is a water injection well.

(3) Where a well is in an area in which ice scouring presents a danger to the integrity of the well, the operator of the well shall ensure that the wellhead is suitably protected.

(4) The operator of a well shall ensure that the Christmas tree used in the well is tested, after the initial installation and after every workover, to the maximum pressure to which the Christmas tree is likely to be subjected.

SOR/2002-170, s. 77(F).

Simultaneous Drilling and Production Operations

27. (1) Where an operator intends to carry out any of the following activities simultaneously with a production operation, the operator shall describe that activity in the safety plan submitted pursuant to subsection 60(1):

(a) the drilling of a well;

(b) the completion, workover or stimulation of a well;

(c) the wireline or pumpdown operation in a well; or

(d) construction.

(2) [Repealed, SOR/2002-170, s. 31]

SOR/2002-170, s. 31.

PART IV

CONSERVATION REQUIREMENTS

Reservoir Management

28. (1) Every recovery method included in the development plan in respect of a pool or field shall provide for the maximum recovery of oil and gas from the pool or field.

(2) The operator shall locate wells so as to provide, to the extent possible, for the maximum recovery of oil and gas from the pool or field.

(3) The operator shall carry out and submit to the Chief infill drilling studies, where the operator has reason to believe that infill drilling could result in an increased recovery of oil or gas from the pool or field.

SOR/2002-170, s. 32.

Voidage Replacement

29. (1) Where the operator of an oil pool carries out an oil recovery scheme that involves pressure maintenance, the operator shall not inject fluid into the pool on a basis other than a well-pattern basis or pool basis and shall not, without the approval of the Chief,

(a) inject fluid into the pool at a volume different from that being withdrawn; or

(b) permit a rate of production from the pool that results in a lower pool pressure than the rate set out in the approved development plan.

(2) The Chief shall approve an imbalance of volumes or a different rate of production deviating from the requirements set out in subsection (1) where the Chief is satisfied that the ultimate recovery of oil and gas from the pool will not be reduced by the deviation.

(3) The operator shall maintain the volumes or rate approved by the Chief pursuant to subsection (2).

Gas Pool or Gas Cap Cycling

30. (1) No operator shall carry out a scheme for the cycling of a gas pool or gas cap without the prior approval of the Chief.

(2) The Chief shall approve a scheme for the cycling of a gas pool or gas cap where the Chief is satisfied that the scheme will provide for the maximum recovery of liquid hydrocarbons from the gas pool or gas cap.

Concurrent Production or Gas Cap Blowdown

31. (1) No operator shall carry out a scheme for the concurrent production of oil and gas from a pool or field that contains a gas cap or a scheme for the blowdown of a gas cap unless the scheme is approved by the Chief.

(2) The Chief shall approve a scheme for the concurrent production of oil and gas from a pool or field that contains a gas cap or a scheme for the blowdown of a gas cap where the Chief is satisfied that the scheme will provide for the maximum recovery of oil or gas from the pool or field.

Commingled Production

32. (1) No operator shall produce oil or gas from more than one pool through a common wellbore or flowline without separately measuring the oil or gas from each pool unless a prior approval to commingle has been granted by the Chief.

(2) The Chief shall approve commingling production for the purpose of subsection (1) where the Chief is satisfied that the commingling will not affect ultimate recovery of oil or gas from the field or is economically justified.

(3) Where there is commingled production pursuant to an approval granted under subsection (2), the operator of the production installation shall measure the total commingled volume produced from the pools and shall estimate the rate of production of each fluid produced from the pools.

SOR/2002-170, s. 78(F).

Flaring and Venting of Gas

33. (1) No operator shall flare or vent gas during a production operation without the prior approval of the Chief Conservation Officer, except in accordance with subsections (2) to (4).

(2) Subject to any requirements determined by the National Energy Board pursuant to subsection 5.1(4) of the Act, an operator may flare or vent gas during

(a) a production test over a period not exceeding 24 hours at rates and in quantities not greater than those necessary to unload and clean up a well; or

(b) an extended production test or well clean-up operation at rates, in quantities and for a period approved pursuant to subsection (4).

(3) An operator may flare or vent gas during a production operation to relieve abnormal pressure or if necessary because of an emergency situation.

(4) The Chief Conservation Officer or Chief Safety Officer may approve the flaring or venting of gas during a production operation at the rate, in the quantity and for the period set out in the approval where the flaring or venting does not constitute waste or an undue safety hazard.

SOR/2002-170, s. 33.

Burning or Otherwise Disposing of Oil

34. (1) No operator shall burn or otherwise dispose of oil without the prior approval of the Chief Conservation Officer or Chief Safety Officer except

(a) where the burning or other disposal is necessary because of an emergency situation;

(b) during a reasonable time after the commencement of a completion or workover operation or stimulation treatment on a well, where the burning or other disposal is necessary; or

(c) where the amount of oil to be burned or otherwise disposed of is less than one cubic metre per hour.

(2) The operator of a well shall not produce from the well during a well test an amount of oil that exceeds a quantity that can be contained in suitable tanks or burned or otherwise disposed of in a manner approved by the Chief Conservation Officer or Chief Safety Officer.

(3) The operator of a well shall immediately inform the Chief Conservation Officer or Chief Safety Officer in writing where the operator burns or otherwise disposes of oil to rectify an emergency situation.

(4) The Chief Conservation Officer or Chief Safety Officer shall approve the burning or other disposal of oil if the Chief Conservation Officer or Chief Safety Officer is satisfied that the burning or disposal is necessary and that it can be done safely and will not cause pollution to the natural environment.

SOR/2002-170, s. 34.

PART V

PRODUCTION RATES

General

35. Subject to any order of the Chief under section 17 of the Act, an operator shall produce oil or gas from a pool or field in accordance with good production practices to achieve the maximum recovery of oil or gas from the pool or field and at the applicable rate consistent with the rate specified in the approved development plan relating to the pool or field.

SOR/2002-170, s. 35.

PART VI

MEASUREMENTS AND TESTING

General

36. (1) Subject to subsection (4), the operator of a well, pool or field shall measure and record the rates of flow and the total volumes of

(a) each fluid that is

(i) produced from or injected into a well, and

(ii) sold, flared or otherwise disposed of;

(b) gas that is used

(i) as fuel for production operations, and

(ii) to assist gas-lift operations;

(c) oil that is used as a hydraulic power fluid for artificial lift equipment; and

(d) each fluid that enters or leaves a battery or processing plant in the field.

(2) Where an operator uses a meter to measure the rate of flow and the total volume of a fluid in accordance with subsection (1), the meter shall

(a) be installed and used in accordance with the instructions provided by the manufacturer;

(b) have an operating range appropriate for its intended use;

(c) be operated within the operating range of the meter; and

(d) be fitted with continuous temperature recording or temperature compensating devices where the meter is a custody transfer meter and temperature fluctuations could affect the accuracy of its measurements.

(3) The operator of a well, pool or field shall ensure that every valve, meter and prover tap is installed in such a manner that the operator is able to maintain a reasonably uniform flow rate through any meter referred to in subsection (2).

(4) The operator of a pool shall allocate the group production of oil and gas from wells in the pool on a pro rata basis to the wells in accordance with a flow system and an allocation procedure that are approved by the Chief in respect of the pool.

(5) The Chief shall approve a flow system or allocation procedure referred to in subsection (4) where the Chief is satisfied that the system or procedure will determine reasonably accurately the production from individual wells.

SOR/2002-170, s. 36(F).

Custody Transfer Meters

37. At the request of the Chief, the owner of a custody transfer meter used in any production operation shall submit to the Chief

(a) the specifications of the meter, including the minimum and maximum flow rates, operating pressures and temperatures, the materials of construction of the meter and recommended installation procedures;

(b) details of any pressure, temperature or gravity compensation device, bottom sediments and water monitor, deaerator, sampling device, volume print-out equipment or monitoring equipment used in conjunction with the meter;

(c) details of the actual operating conditions of the meter including the range of flow rates, whether the flow rate is intermittent or continuous, maximum pressure, pressure drop and range of temperatures;

(d) details of the meter's accuracy, required calibration equipment and calibration procedures; and

(e) a copy of every meter calibration report in respect of that custody transfer meter.

Group Production Meter and Test Production Meter Calibration

38. Where the operator of a pool uses a group production meter or test production meter to measure fluids produced from the pool, the operator shall calibrate the meter and maintain the calibration in accordance with Part 14 of the Oil and Gas Conservation Regulations of Alberta AR 151/71, as amended from time to time.

Water Meter Calibration

39. An operator shall calibrate every water meter that the operator uses and maintain the calibration in accordance with Part 14 of the Oil and Gas Conservation Regulations of Alberta AR 151/71, as amended from time to time.

Gas Meter Calibration

40. An operator shall calibrate every gas meter that the operator uses and maintain the calibration in accordance with Part 14 of the Oil and Gas Conservation Regulations of Alberta AR 151/71, as amended from time to time.

Condensate Measurement

41. (1) Where the operator of a well, pool or field uses a displacement or turbine meter to measure condensate, the operator shall calibrate the meter and maintain the calibration in accordance with Part 14 of the Oil and Gas Conservation Regulations of Alberta AR 151/71, as amended from time to time.

(2) Where an operator uses an orifice flow meter to measure condensate, the operator shall equip the meter with a recorder.

Metering Records

42. The operator of a well, pool or field shall keep a record of the flow through each group production meter or test production meter used by the operator, retain the record for one year and, at the request of the Chief during that year, submit that record to the Chief.

Accuracy of Measurement and Replacement or Recalibration of Meters

43. (1) The minimum acceptable accuracy for the measurement of the total monthly production of oil or gas at a production site is that set out in Part 14 of the Oil and Gas Conservation Regulations of Alberta AR 151/71, as amended from time to time.

(2) The operator of a well shall test the well often enough to meet the minimum acceptable accuracy referred to in subsection (1).

(3) An operator shall, at the request of the Chief, test the accuracy of a meter used by the operator and submit the results to the Chief.

(4) An operator shall replace or recalibrate any metering equipment used by the operator that does not meet the accuracy requirements of this Part.

SOR/2002-170, ss. 37, 77(F).

PART VII

DESIGN AND CONSTRUCTION OF A PRODUCTION INSTALLATION

[SOR/2002-170, s. 38(F)]

General

44. An operator shall not use a production site unless the production equipment at the site is arranged so as to

(a) provide for the safety of a person;

(b) minimize the risk of damage to the environment; and

(c) enable easy access to the production equipment.

SOR/2002-170, ss. 39, 77(F).

45. [Repealed, SOR/96-115, s. 5]

Emergency Shutdown Valves

46. (1) The operator of a well shall install a fail-close emergency shutdown valve on the wellhead and Christmas tree where

(a) the well produces gas that has a hydrogen sulphide content that exceeds 50 moles per kilomole by volume;

(b) the well is at an offshore production site; or

(c) an escape of fluids from the well by reason of the failure of a flowline or injection line could endanger a person or cause a serious discharge into the natural environment.

(2) The operator of a well shall ensure that all the emergency shutdown valves of the well meet the requirements of the API Specification for Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Service, API Spec 14D, Seventh Edition (January 1988), as amended from time to time.

(3) The operator of a well shall maintain and inspect all emergency shutdown valves installed on the wellhead and Christmas tree in accordance with the API Recommended Practice for Use of Surface Safety Valves and Underwater Safety Valves Offshore, API RP 14H, Second Edition (April 30, 1984), as amended from time to time.

(4) The operator of an offshore production installation shall not operate an oil or gas pipeline that enters or leaves the production installation unless the pipeline is equipped with emergency shutdown valves in accordance with the API Recommended Practice for Analysis, Design, Installation and Testing of Basic Surface Safety Systems for Offshore Production Platforms, API RP 14C, Fourth Edition (September 1, 1986), as amended from time to time.

SOR/2002-170, ss. 40, 78(F).

Onshore Diesel Engines

47. Where an operator uses a diesel engine for a completion, workover or wireline operation or stimulation treatment at an onshore production site, the operator shall ensure that the engine is located at least 25 m from the well unless the engine is

(a) within a fire-resistant enclosure; or

(b) equipped with

(i) an air intake shut-off valve,

(ii) a system for the injection of inert gas into the engine's cylinders that is equipped with a readily accessible remote control, or

(iii) a suitable air intake duct that obtains air for the engine from a location at least 25 m from the well.

SOR/2002-170, ss. 41(F), 77(F).

48. [Repealed, SOR/96-115, s. 6]

Relief Systems

49. (1) The operator of a production installation shall connect every pressure relief valve and every burst plate that is in liquid hydrocarbon service at the installation to

(a) a sump; or

(b) a tank, whether or not the tank is surrounded by a berm, that is of sufficient size to contain the maximum volume of liquids that could escape before a shutdown of the system could be accomplished.

(2) The operator of a production installation shall connect every pressure relief valve in gas service at the installation to

(a) a flare system; or

(b) a vent system.

(3) Where the content of hydrogen sulphide in the fluids produced at a production installation exceeds 10 moles per kilomole by volume, the operator of the installation shall ensure that the installation is equipped with a flare system that provides for continuous ignition.

SOR/2002-170, s. 42(F).

Alarm Systems

50. (1) No operator of a production installation shall produce oil or gas from the installation unless the installation is equipped with an alarm system capable of alerting a person to any hazardous conditions that might

(a) endanger the person;

(b) endanger the installation; or

(c) be harmful to the natural environment.

(2) The operator of a production installation shall ensure that the operations manuals for the installation set out

(a) a description of the alarm system and methods used for the detection of conditions requiring an alarm;

(b) a description of each alarm signal;

(c) the locations at which the smoke, fire and gas detectors are installed;

(d) a description of the power source of the alarm system;

(e) the maintenance and calibration requirements of the alarm system; and

(f) the number and locations of portable gas detectors.

(3) Every alarm system that a production installation is required to have in accordance with these Regulations shall be

(a) operational at all times;

(b) where applicable, flagged as being under inspection, maintenance or repair; and

(c) designed in such a manner as to prevent tampering.

(4) While an alarm system for a production installation is being inspected, maintained or repaired, the operator of the installation shall ensure that the functions of the system are performed manually.

SOR/2002-170, s. 43.

Communication Systems

51. (1) No person shall operate a manned production site unless the site is equipped with

(a) a radio or telephone communication system; and

(b) an emergency communication system.

(2) A communication system referred to in subsection (1) shall be operational at all times.

(3) No person shall operate a manned offshore production installation unless the installation is equipped with a two-way radio communication system that enables effective communications

(a) by radio to be maintained between the offshore production installation, the shore base, support vessels, standby vessels and other nearby offshore installations; and

(b) with marine traffic in the vicinity.

(4) No person shall operate a manned offshore production installation unless the installation is equipped with

(a) an internal telephone system;

(b) a public address system with loudspeakers located so that a voice transmission can be heard throughout the production installation; and

(c) a means of transmitting written data to the shore base of the installation.

(5) No person shall operate an offshore production installation that is usually unmanned unless the installation is equipped with

(a) a two-way radio communication system whenever the installation is manned; and

(b) a system capable of detecting, under ambient conditions, any hazardous conditions that could endanger the safety of the installation or damage the natural environment and of alerting the control centre of the installation about the hazardous conditions.

SOR/2002-170, s. 44(F).

52. No person shall tamper with or activate without cause any safety equipment required under section 25 or this Part.

PART VIII

ENVIRONMENTAL ISSUES

Physical Environmental Reporting

[SOR/2002-170, s. 45(F)]

53. (1) The operator of an offshore production installation shall maintain a comprehensive record of the observations made in respect of the natural environment during the life of the production project in the form of tour sheets or in such other form as may be approved by the Chief.

(2) The Chief shall approve the tour sheets or other forms referred to in subsection (1) where the Chief is satisfied that the tour sheets or other forms contain the information required by these Regulations.

(3) The Chief may request the operator of a production installation at an onshore production site to observe and record, at such intervals as the Chief may specify, the wind direction and speed, the temperature and the amount of precipitation and the operator shall comply with that request.

(4) The operator of an offshore production installation shall observe and record

(a) the location and movement of any ice floes or icebergs in the vicinity of the installation;

(b) at least once every three hours

(i) the wind direction and speed,

(ii) the wave direction, height and period,

(iii) the swell direction, height and period,

(iv) the direction and speed of the current,

(v) the barometric pressure and air temperature,

(vi) the temperature of the water, and

(vii) the visibility; and

(c) each day, the amount of precipitation in the preceding day.

(5) The operator of a floating production installation shall observe and record the pitch, roll and heave of the production installation and the tension on each mooring line

(a) at least once every six hours where the wind speed does not exceed 35 kilometres per hour; and

(b) at least once every three hours where the wind speed exceeds 35 kilometres per hour.

(6) The operator at an offshore production site shall obtain, during the period in which operations are carried out, forecasts of meteorological conditions and ice movements each day and each time during

the day that the meteorological conditions or the ice movements change substantially from those forecasted.

SOR/2002-170, ss. 46(F), 77(F), 78(F).

Construction Disturbances

54. No person shall construct any facility that forms part of a production project unless the facility was designed and is constructed in such a manner as to minimize, to the extent reasonably practicable,

(a) any permanent disturbance to the seabed, watercourses, ground surface, wildlife or vegetation, or any other part of the natural environment; and

(b) any permanent change to the thermal regime of the ground in permafrost areas.

SOR/2002-170, s. 47(F).

Hazards

55. The operator of a production site shall take all reasonable precautions to protect a person at the site, the production installation and all of the associated equipment at the site from naturally occurring hazards and hazards associated with the operations carried out at the production site.

SOR/2002-170, s. 48.

Handling of Waste Material and Oil

56. The operator of a production site shall ensure that all waste material and oil that are produced or stored at the production site are handled and disposed of in a manner that does not create a hazard to the health or safety of a person or cause damage to the natural environment.

SOR/2002-170, s. 49.

Sewage Treatment

57. The operator of a production site shall collect, treat and dispose of all waste material produced at the site and shall do so in a manner that prevents a hazard to health, avoids the creation of a nuisance and maintains the quality of the natural environment.

SOR/2002-170, s. 77(F).

Produced and Process Waters

58. (1) No operator shall operate a system for the disposal of produced water at sea unless the system is designed and maintained to ensure that the average oil content of the water does not exceed any monthly average or maximum daily volume that is specified in a requirement of the production operations authorization that authorizes the operation in which the water is produced.

(2) No operator shall discharge process water unless the water discharged is, in quality, equal to or better than water that meets any contamination limits specified in a requirement of the production operations authorization that authorizes the operation in which the water is produced.

(3) The operator of a production installation shall institute appropriate sampling and analysis procedures to ensure that the quality of produced water and process water meets any quality specified in a requirement of the production operations authorization that authorizes operation in which the water is produced.

(4) No operator shall dispose of produced water into the land surface or into bodies of fresh water.

(5) No operator shall dispose of produced water from a well at an onshore production site by evaporation in unlined surface pits unless the water is evaporated

(a) at a location at which the nature of the soil is such that the contamination of ground water is prevented; and

(b) in a quantity and for a period not exceeding those specified in a requirement of the production operations authorization that authorizes the production of the produced water.

(6) No operator shall carry out a scheme for the underground disposal of water produced from a well unless the operator submits an application for approval to the Chief Conservation Officer for an injection scheme that

(a) avoids surface pollution; and

(b) assists the pressure maintenance of a pool.

(7) The Chief Conservation Officer shall approve the scheme for the underground disposal where the Chief Conservation Officer is satisfied that the underground disposal will avoid surface pollution and assist in the pressure maintenance of the pool.

SOR/2002-170, ss. 50, 77(F), 78(F).

Decommissioning

59. No person shall decommission a production installation at a pool or field other than in accordance with the development plan relating to the pool or field approved pursuant to section 5.1 of the Act.

SOR/2002-170, s. 78(F).

PART IX

OPERATIONS

Safety, Environmental Protection and Ice Management Plans

60. (1) Every operator shall submit to the Chief Conservation Officer or Chief Safety Officer, in a form and manner satisfactory to the Chief Conservation Officer or Chief Safety Officer,

(a) a safety plan and any amendment to it relating to the safety of a person at the production installation and the integrity of the production installation and, in the case of an offshore production site, of any facility used to accommodate persons at the site that functions independently of that production installation that includes

(i) the operational, inspection, monitoring and maintenance procedures contained in an operations manual,

(ii) a description of the facilities and equipment and the training and experience of persons at the installation,

(iii) occupational safety and health matters,

(iv) contingency planning, and

(v) any other relevant matter;

(b) an environmental protection plan that relates to the protection of the natural environment from the oil or gas, pollutants or waste material discharged, emitted or disposed of during the production operation; and

(c) where there may be pack sea ice, drifting icebergs or ice islands at the production site, an ice management plan that includes systems in respect of ice detection, surveillance, data collection, reporting, forecasting and, where appropriate, avoidance or deflection.

(2) The plans submitted pursuant to subsection (1) shall address abnormal conditions or emergencies that could reasonably be anticipated, including:

(a) serious injury or loss of life;

(b) collisions;

(c) a loss of well control;

(d) a fire or explosion; and

(e) an environmental event that results in loads on the installation in excess of those for which it is designed.

(3) The plans submitted pursuant to subsection (1) shall provide for their coordination with any relevant municipal, provincial or national plans.

(4) The Chief Conservation Officer or Chief Safety Officer shall approve a plan submitted pursuant to subsection (1), where the Chief Conservation Officer or Chief Safety Officer is satisfied that adherence to the plan will

(a) in the case of a safety plan, result in an adequate level of safety, health and training for a person at the installation and permit the integrity of the installation to be preserved;

(b) in the case of an environmental protection plan, provide adequately for the protection of the natural environment; and

(c) in the case of an ice management plan, permit an appropriate response to ice conditions to ensure the safety of a person at the installation and the installation.

(5) Every operator shall ensure that a copy of each of the plans submitted pursuant to subsection (1) and approved pursuant to subsection (4) is

(a) kept at the production installation and at any accommodation facility described in paragraph (1)(a); and

(b) available for examination on request by any person at the production installation and at any accommodation facility described in paragraph (1)(a).

(6) Every operator shall, at all times, have available, in an operable condition, any equipment required for use in any plan approved pursuant to subsection (4).

SOR/2002-170, ss. 51, 77(F), 78(F).

Equipment Requirements

61. The operator of a production installation shall ensure that the equipment and related machinery used at the installation

(a) are used within safe operating limits;

(b) have a control system and safety guards to protect a person at the installation and the natural environment;

(c) are not used unless there is a safe means of going into and out of the area where the equipment is located;

(d) are installed and operated in such a manner as to minimize, to the extent practicable, the production of noise at levels that are harmful to a person and wildlife; and

(e) are located in such a manner as to minimize any potential danger to the production installation or to the operating person and to minimize any permanent damage to the natural environment.

SOR/2002-170, s. 52.

Testing Requirements for Valves and Sensors and Related Reports

62. (1) The operator of an onshore production installation shall

(a) subject every wellhead fail-close emergency shutdown valve of the installation to an operating and pressure-holding test at least once every six months and shall immediately replace defective valves;

(b) test every relief valve on a pressure vessel that is located at a well or battery site of the installation at least once every 12 months;

(c) test every pressure sensor of the installation at least once every three months;

(d) test every liquid level control device of the installation at least once every month by activating the sensor for the device; and

(e) test every automatic shutoff valve associated with a compressor or vessel inlet of the installation and every automatic low-level-activated shutoff valve on a flowline of the installation at least once every month.

(2) Where an onshore production installation contains a gas plant or refinery, the operator of the installation shall test every relief valve of the plant or refinery at least once every 12 months or, with the approval of the Chief Conservation Officer or Chief Safety Officer, during maintenance shutdowns of the installation.

(3) The Chief Conservation Officer or Chief Safety Officer shall approve the testing of the relief valves of a gas plant or refinery during a maintenance shutdown referred to in subsection (2) where the Chief Conservation Officer or Chief Safety Officer is satisfied that the testing provides for the safety of the installation and the protection of the natural environment.

(4) The operator of an offshore production installation shall

(a) test the components of the safety system of the installation and record malfunctions of the system in accordance with Appendix D of the API Recommended Practice for Analysis, Design, Installation and Testing of Basic Surface Safety Systems for Offshore Production Platforms, API RP 14C, Fourth Edition (September 1, 1986), as amended from time to time;

(b) test any emergency shutdown system that forms part of the safety system at least once every month by activating any remote-controlled safety valve from each emergency shutdown control station;

(c) test the valves and sensors that are used in hydrocarbon service and that are components of the safety system of the installation in accordance with the following schedule:

(i) every emergency shutdown valve installed on a wellhead above waterlevel, for function and for leakage, at least once every month,

(ii) every pressure sensor, at least once every month,

(iii) every liquid level control device, at least once every month, by activating the sensor for the device,

(iv) every check valve installed on a flowline, for leakage, at least once every month,

(v) every automatic inlet shutdown valve on a vessel or compressor that is activated by a sensor, at least once every month,

(vi) every shutdown valve that is located in a liquid discharge line from a vessel and is activated by a low-level sensor, once every month,

(vii) every shutdown control installed on a compressor that is activated by temperature sensors, at least once every six months,

(viii) every fire or gas detection system, at least once every six months, and

(ix) every pressure-relief valve, either through bench testing or, where possible, through testing in place using an external pressure source, at least once every 12 months; and

(d) recalibrate every fire and gas detection system whenever the tests indicate it is no longer accurate.

(5) The operator of an offshore production installation shall

(a) submit an inventory of the safety and pollution prevention equipment of the installation to the Chief Safety Officer not later than 45 days after the start of production of oil or gas at the installation; and

(b) update the inventory referred to in paragraph (a) and submit the updated inventory to the Chief Safety Officer within 45 days after the completion of any

(i) significant modification of the safety system of the installation, or

(ii) major repair of any major component of the safety system of the installation.

(6) The operator of an offshore production installation shall report to the Chief Safety Officer every failure or unsuccessful test of the safety system of the offshore production installation or of any component of the safety system not later than 30 days after the failure of the completion of the test.

SOR/2002-170, ss. 53, 78(F).

Support Craft

63. (1) No operator of a production installation shall use a support craft unless the craft is designed, constructed and maintained to be capable of operating safely in the foreseeable conditions of the natural environment prevailing in the area of the production installation and unless, at the request of the Chief Safety Officer, the operator demonstrates that capacity to the Chief Safety Officer.

(2) No person shall use a ship as a support craft unless the ship carries

(a) lights and the sound signal appliance required by Rule 42 of the Collision Regulations as if it were a vessel to which that Rule applies; and

(b) emergency equipment and life-saving devices of a type and in sufficient number to permit the escape and survival, under any conditions that could reasonably be anticipated, of all persons on board the ship.

(3) Where a passenger boards a support craft, the person in charge of the support craft shall inform the passenger, at the time of boarding, of the safety rules and procedures applicable to the craft.

SOR/2002-170, s. 54.

Standby Vessels

64. (1) The operator of a manned offshore production installation shall have a standby vessel

(a) within 5 km of the installation at all times; and

(b) within the distance from the installation that the vessel can travel in 20 minutes during a storm.

(2) A standby vessel referred to in subsection (1) shall

(a) be capable of accommodating all persons from the production installation in the event of an evacuation of the installation;

(b) carry first-aid equipment and persons who are capable of administering first aid to rescued persons;

(c) be capable of rescuing any person from the water near the production installation; and

(d) be equipped to serve in an emergency as a communications centre to ensure communication between the production installation, other vessels and installations in the vicinity, rescue craft, the shore base and land-based rescue facilities.

(3) The operator of a manned offshore production installation shall ensure that a standby vessel referred to in subsection (1)
(a) assists in the rescue of persons from the installation in the event of an emergency;

(b) attends as close to the installation as may be necessary to be prepared to rescue persons whenever

(i) a helicopter lands or takes off,

(ii) persons work overside, or

(iii) persons work near or in the water; and

(c) assists in the avoidance of a collision between the installation and any hazard.

SOR/2002-170, s. 55.

Transportation

65. The operator of a production installation shall ensure that the transportation of persons to and from the installation is carried out in a safe manner.

SOR/2002-170, s. 56.

Communications

66. (1) The operator of a manned offshore production installation shall ensure that the communications equipment on the installation is operated at all times by persons trained for that purpose.

(2) Persons referred to in subsection (1) shall, on a 24-hour basis,

(a) maintain a listening watch on the 156.8 MHz frequency; and

(b) monitor all marine and air communications with respect to movements of any support craft operating between the offshore production installation and the shore.

SOR/2002-170, s. 57.

Availability of Regulations

67. The operator of a production site shall keep a copy of these Regulations at the site and make it available for examination at the request of any person.

SOR/2002-170, s. 77(F).

Suspension of Operations

68. (1) The operator of a production installation shall forthwith suspend a production operation where the continuation of the operation would

(a) cause the discharge of any substance into the natural environment exceeding any limit specified in a requirement of the production operations authorization for the operation; or

(b) endanger the safety of a person, the security of a well or the integrity or safe operation of the production installation.

(2) Where an operator suspends a production operation pursuant to subsection(1), the operator shall not resume the production operation until the operation can be resumed safely and with no unauthorized discharge into the natural environment.

(3) Where a serious injury or fatal accident or serious damage to equipment occurs at a production site, the operator of the production site shall immediately suspend every operation that contributed to the injury, fatality or damage and shall not resume the operation without the approval of the Chief Safety Officer.

(4) Where there is a loss of control or the danger of a loss of control of a well at an offshore production site or of a well that is part of a cluster of wells at an onshore production site, the operator shall shut in all other wells at the site or in the cluster until the well that is out of control or in danger of becoming out of control is secured.

(5) The Chief Safety Officer shall approve the resumption of production at a production site that, pursuant to subsection (3), has been suspended where the Chief Safety Officer is satisfied that production can safely be resumed.

SOR/2002-170, ss. 58, 78(F).

Subsea Location

69. The operator of an offshore production installation shall be able readily to locate any subsea production system.

SOR/2002-170, s. 78(F).

PART X

SAFETY AND TRAINING

[SOR/2002-170, s. 59]

Qualifications

70. (1) The operator of a production site shall ensure that the supervisors employed at the production site have, before assuming their duties, a reasonable amount of experience and any training necessary to conduct their duties in a safe manner.

(2) The operator of a production site shall, on request, provide the Chief Safety Officer with a summary of the qualifications of any supervisor employed at the production site.

SOR/2002-170, s. 60.

Training

71. (1) No operator shall conduct a production operation requiring special skills not held by the persons to be employed for that operation until

(a) the operator submits to the Chief a description of the supplemental training the operator proposes to give to those persons;

(b) the Chief approves the training proposal referred to in paragraph (a); and

(c) the operator ensures that the persons successfully complete the approved training.

(2) The Chief shall approve a training proposal submitted pursuant to paragraph (1)(a) where the Chief is satisfied that the proposed training is sufficient to enable the operation to be conducted in a safe manner.

SOR/2002-170, s. 61.

Safety and Environmental Protection Drills

72. (1) The operator of a production site shall ensure that the persons at the site are familiar with the procedures for their personal safety and for evacuation of the site, and with their responsibilities under the contingency plans in respect of any production installation at the site.

(2) The operator of a production installation at which oil could be produced shall, at least once every 12 months, carry out at the production installation a drill on the procedures to be used to respond to and clean up an oil spill.

SOR/2002-170, ss. 62, 78(F).

Maintenance Procedures and Replacement of Equipment

73. The operator of a production installation shall

(a) immediately repair or replace any defective equipment used at the production installation that represents a safety hazard in respect of the installation or a person at the installation;

(b) immediately revise any procedure used at the production installation that the operator has reason to believe is unsafe and shall inform all persons affected of the revision;

(c) where necessary, insert a revised procedure in the operations manuals in respect of a production operation; and

(d) institute programs to monitor, in accordance with good engineering practices, the extent of the corrosion and erosion of the components of the production installation and of the well tubulars and wellheads at the production installation and shall, at the request of the Chief Safety Officer, report the results of those programs to the Chief Safety Officer.

SOR/2002-170, s. 63.

PART XI

AUTHORIZED ENTRY, INSPECTION AND INVESTIGATIONS

Authorized Entry

74. (1) No person other than

(a) a member of the production crew or other person authorized by the operator,

(b) a conservation officer or safety officer, or

(c) a person designated by the Chief Conservation Officer or Chief Safety Officer and either escorted by a conservation officer or safety officer or authorized by the operator

shall, except in an emergency, enter an onshore production site or the safety zone of an offshore production installation.

(2) The operator of an offshore production installation shall take such measures as are reasonable to ensure that any person in charge of a vessel or aircraft that operates in or approaches the safety zone of the installation is informed of the boundaries of the safety zone.

(3) For the purposes of subsections (1) and (2), the safety zone of an offshore production installation is the area that extends to the greater of

(a) 50 m beyond the boundaries of the anchor pattern of an anchored installation, and

(b) 500 m in all directions from the installation.

SOR/2002-170, s. 64.

75. (1) Where a conservation officer or safety officer believes on reasonable grounds that the condition of any equipment used in the production of oil or gas is such that there is a risk of loss of life, serious injury to a person, loss of control of a well or pollution to the natural environment, the conservation officer or safety officer shall give written notice to the operator in charge of the equipment to test, to the extent practicable, the function of that equipment and the operator shall do so immediately.

(2) Where, pursuant to subsection (1), an operator tests equipment and the equipment does not operate in accordance with the specifications for that equipment set out in the operations manuals for the production installation, the operator shall immediately replace or repair the equipment.

(3) Where equipment referred to in subsection (1) cannot be adequately tested, the Chief shall, on the recommendation of the conservation officer or safety officer, order the operator to repair or replace the equipment and the operator shall do so immediately.

SOR/2002-170, ss. 66, 78(F).

Investigation of Accidents

76. The Chief Conservation Officer or Chief Safety Officer shall investigate any accident or other event at a production site that

(a) causes significant damage to or failure of production equipment; or

(b) could result in a discharge into the natural environment exceeding any limit specified in the production operations authorization.

SOR/2002-170, s. 67.

PART XII

RECORDS AND REPORTING

System of Units

77. Every operator shall use the international system of units (SI) to record data and to prepare reports that are submitted to the Chief.

Report of Serious Accident or Event

78. (1) The operator of a production installation shall immediately inform the Chief Conservation Officer or Chief Safety Officer by the most rapid method of communication available of any death, missing person, serious injury to a person, imminent threat to the safety of a person at the installation or the public, fire, explosion, loss of well control, spill of hydrocarbons or toxic fluid, significant damage to the production installation or any other serious accident or event at the installation.

(2) Where an accident or event referred to in subsection (1) occurs, the operator of the production installation shall, as soon as practicable and after informing the Chief Conservation Officer or Chief Safety Officer pursuant to that subsection, submit a written report of the accident or event to the Chief Conservation Officer or Chief Safety Officer.

SOR/2002-170, s. 68.

Names and Designations

79. (1) The Chief may designate a name for a pool or field.

(2) The operator shall use the name designated by the Chief pursuant to subsection (1) in all records, reports and other documentation required by or under the Act.

(3) The Chief may fix the boundaries of a pool or field.

(4) The operator of a well shall assign to the well when it is completed

(a) a distinct permanent designation that consists of a completion number and the name of the pool in which the well is located; and

(b) a non-permanent designation that indicates the completion status as set out in subsection (5).

(5) The designation referred to in paragraph (4)(b) shall indicate the status of the well as follows:

(a) an operational well shall be designated by the letter O;

(b) a suspended well shall be designated by the letter S; and

(c) an abandoned well shall be designated by the letter A.

SOR/2002-170, s. 69.

Change of Operator

80. Where the operator of a production installation proposes that another operator henceforth operate the production installation, the operator shall notify in writing the Chief Conservation Officer of

(a) the reason for the proposed change in operators; and

(b) documentation satisfactory to the National Energy Board that the new operator will be able to meet the commitments and responsibilities of the present operator under the Act and these Regulations.

SOR/2002-170, s. 70.

Construction Progress

81. The operator of a production site or production installation shall, within 15 days after a request by the Chief, submit a report to the Chief summarizing, for the month requested, the construction progress and significant events occurring at the production site or during the construction of the production installation.

SOR/2002-170, s. 71(F).

Operating Record

82. (1) The operator of a production site shall keep at a central control point and, on request, make available to the Chief current logs of the site respecting

(a) safety drills and contingency exercises;

(b) the number of persons at the production site at any time;

(c) the movements of support craft;

(d) any inspection, repair or modification of or significant damage to equipment;

(e) the inspection of any production facility at the production site and related equipment for corrosion and erosion and any resulting maintenance;

(f) any loss of fuel or spill of oil or chemicals;

(g) pressure, temperature and flow rate data for compressors, treating facilities and processing equipment;

(h) the calibration of meters and instruments;

(i) the inspection of surface and subsurface safety valves;

(j) the operation of wells at the site; and

(k) every instance of discharge of hydrocarbons or chemicals into the natural environment.

(2) Unless otherwise approved by the Chief, an operator shall retain a log referred to in subsection (1) for a minimum of five years and shall offer the original or a copy of the log to the Chief before it is destroyed.

SOR/2002-170, s. 72.

Production Records

83. (1) The operator of a pool shall keep production records in respect of the pool and shall, at the request of the Chief, provide the records to the Chief.

(2) The operator of a pool shall retain every record referred to in subsection (1) until production from the field in which the pool is located is abandoned.

Monthly Production Report

84. (1) Every operator shall submit to the Chief in a form approved by the Chief not later than the 15th day of each month, or such later date as the Chief authorizes, three copies of a report summarizing the production operations carried out by the operator in the preceding month.

(2) Every operator shall follow such established production accounting procedures as have been approved by the Chief and communicated to the operator in writing.

Monthly Gas Processing Plant and Oil Refinery Report

85. The operator of a gas processing plant or an oil refinery that handles oil or gas shall, not later that the 15th day of each month, or such later date as the Chief may authorize, submit to the Chief three copies of a report in a form approved by the Chief setting out the amount of fluids processed during the preceding month in the plant or refinery.

Submission of Data

86. (1) An operator shall submit to the Chief in a form approved by the Chief three final copies of the results, data, analyses and schematic diagrams obtained from

(a) any test, measurement, log or fluid sample analysis completed in accordance with Part II; and

(b) any segregation test or downhole operation required by Part III.

(2) An operator shall submit the results, data, analyses or schematic diagrams referred to in subsection (1) within 60 days after the completion of the test, measurement, log or sample analysis.

SOR/2002-170, s. 73.

Pilot Scheme

87. (1) An operator shall, in accordance with the conditions of the development plan approval for a pool or field, submit interim evaluations of any pilot scheme that the operator conducts at the pool or field to the Chief.

(2) Where an operator completes a pilot scheme, the operator shall submit a report to the Chief that sets out

(a) the results of the pilot scheme and supporting data and analyses; and

(b) the conclusions of the operator in respect of the potential of the scheme for its application to full-scale production.

SOR/2002-170, s. 74.

Annual Production Report and Annual Environmental Report

88. (1) An operator shall submit to the Chief, no later than March 1 of each year, an annual production report and an annual environmental report for a pool or field relating to the preceding year.

(2) An annual production report referred to in subsection (1) shall set out, where applicable,

(a) graphs of the production from and injections into the pool or field;

(b) a review of the production from and injections into each well that is located in the pool or field;

(c) a review of the production capability of the pool or field;

(d) predicted declines in the production capability of the pool or field;

(e) details of pool performance;

(f) a review of water production;

(g) a summary of tests, surveys and alternations in respect of well performance and production equipment for the pool or field;

(h) a review of subsurface safety valve performance; and

(i) a listing of the significant modifications that have been made to any production installation at the pool or field.

(3) An annual environmental report referred to in subsection (1) for an offshore production site shall set out a review of general environmental conditions during the preceding year, including meteorological, oceanographic and ice conditions and a description of ice management activities and the down-time because of weather or ice.

(4) Where the performance of a well or pool differs significantly from predictions in the previous annual production report in respect of the well or pool, the operator shall, at the request of the Chief, submit to the Chief performance evaluations of the well or pool at intervals set by the Chief.

SOR/2002-170, ss. 75, 78(F).

PART XIII

[Repealed, SOR/2002-170, s. 76]