

EXHIBIT/P-00036



Department of Justice Ministère de la Justice
Canada Canada



Enabling Statute: [Canada–Newfoundland Atlantic Accord Implementation Act](#)

Newfoundland Offshore Area Petroleum Production and Conservation Regulations (SOR/95-103)

Regulation current to September 8th, 2009

Attention: See coming into force provision and notes, where applicable.

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Newfoundland Offshore Area Petroleum Production and Conservation Regulations

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Registration February 21, 1995

CANADA-NEWFOUNDLAND ATLANTIC ACCORD IMPLEMENTATION ACT

Newfoundland Offshore Area Petroleum Production and Conservation Regulations

P.C. 1995-256 February 21, 1995

Whereas, pursuant to subsection 150(1) of the *Canada-Newfoundland Atlantic Accord Implementation Act*^{*}, a copy of the proposed *Regulations respecting safety, conservation practices and the protection of the environment in operations undertaken for the production of petroleum in the Newfoundland offshore area*, substantially in the form annexed hereto, was published in the *Canada Gazette* Part I on May 7, 1994 and a period of 30 days was thereafter afforded to interested persons to make representations to the Minister of Natural Resources with respect thereto;

And Whereas, pursuant to section 7 of the *Canada-Newfoundland Atlantic Accord Implementation Act*^{*}, the Minister of Natural Resources has consulted the Provincial Minister for the Province of Newfoundland with respect to the proposed Regulations and the latter has given his approval for the making of those Regulations;

Therefore, His Excellency the Governor General in Council, on the recommendation of the Minister of Natural Resources, pursuant to sections 149^{**} and 203 of the *Canada-Newfoundland Atlantic Accord Implementation Act*^{*}, is pleased hereby to make the annexed *Regulations respecting safety, conservation practices and the protection of the environment in operations undertaken for the production of petroleum in the Newfoundland offshore area*, effective on the day on which the *Newfoundland Offshore Petroleum Production and Conservation (Newfoundland) Regulations*, made pursuant to section 145 of the *Canada-Newfoundland Atlantic Accord Implementation Newfoundland Act*, come into force.

^{*} S.C., 1987, c. 3

^{**} S.C., 1992, c. 35, s. 63

REGULATIONS RESPECTING SAFETY, CONSERVATION PRACTICES AND THE PROTECTION
OF THE ENVIRONMENT IN OPERATIONS UNDERTAKEN FOR THE PRODUCTION OF
PETROLEUM IN THE NEWFOUNDLAND OFFSHORE AREA

SHORT TITLE

1. These Regulations may be cited as the *Newfoundland Offshore Area Petroleum Production and Conservation Regulations*.

INTERPRETATION

2. (1) In these Regulations,

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"accommodation installation" has the same meaning as in subsection 2(1) of the *Newfoundland Offshore Petroleum Installations Regulations*; (*installation d'habitation*)

"Act" means the *Canada-Newfoundland Atlantic Accord Implementation Act*; (*Loi*)

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

"approved development plan" means a development plan that is approved in accordance with section 139 of the Act; (*plan de mise en valeur approuvé*)

"barrier" means any remotely-operated valve or set of valves that can be regularly pressure tested, any fluid that exerts sufficient hydrostatic pressure to overbalance the reservoir pressure, any cement plug placed in the wellbore, any mechanical equipment installed in the wellhead or christmas tree or in the production tubing, annulus or wellbore, or any other pressure sealing mechanism installed for the purpose of preventing the flow of fluids from a well; (*barrière*)

"certificate of fitness" means a certificate, in the form fixed by the Board, issued by a certifying authority in accordance with section 4 of the *Newfoundland Offshore Certificate of Fitness Regulations*; (*certificat de conformité*)

"certifying authority" has the same meaning as in section 2 of the *Newfoundland Offshore Certificate of Fitness Regulations*; (*société d'accréditation*)

"Chiefs" means the Chief Conservation Officer and the Chief Safety Officer; (*délégués*)

"commingled production" means production of petroleum from more than one pool through a common wellbore or flowline without separate measurement of the petroleum; (*production mélangée*)

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

"condensate" means a mixture of substances, most of which are pentanes and heavier hydrocarbon components, that is recovered or is recoverable at a well from an underground reservoir and that may be gaseous in its virgin reservoir state but is liquid in the conditions under which its volume is measured or estimated; (*condensat*)

"delineation well" means a well that is so located in relation to another well penetrating an accumulation of petroleum that there is a reasonable expectation that another portion of that accumulation will be penetrated by the first-mentioned well and that the drilling is necessary in order to determine the commercial value of the accumulation; (*puits de délimitation*)

"development well" means a well that is so located in relation to another well penetrating an accumulation of petroleum that it is considered to be a well or part of a well drilled for the purpose of production or observation or for the injection or disposal of fluid into or from the accumulation; (*puits d'exploitation*)

"diving installation" has the same meaning as in subsection 2(1) of the *Newfoundland Offshore Petroleum Installations Regulations*; (*installation de plongée*)

"drilling installation" has the same meaning as in subsection 2(1) of the *Newfoundland Offshore Petroleum Installations Regulations*; (*installation de forage*)

"environmental protection plan" means an environmental protection plan that has been approved pursuant to subsection 51(5); (*plan de protection de l'environnement*)

"flow system" means the flow meters, auxiliary equipment attached to the flow meters, fluid sampling devices, production test equipment and the master meter and meter prover used to measure and

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record the rate and volumes at which fluids are produced from or injected into a pool, used as a fuel, used for artificial lift, flared or transferred from a production installation; (*système d'analyse du débit*)

"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 hydrocarbon components 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*)

"group production meter" means a meter that measures the total production from more than one well; (*compteur de production regroupée*)

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

"injection well" means a development 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 accommodation installation; (*installation*)

"multi-pool well" means a development well that has been completed in more than one pool; (*puits de gisements multiples*)

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

"oil pool" means a pool that contains hydrocarbon components 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*)

"operator" means a person who has applied for or has been issued a production operations authorization or has applied for or has been granted an approval for a development plan; (*exploitant*)

"physical environmental conditions" means meteorological, oceanographic and related physical conditions, including ice conditions, that could affect an operation authorized pursuant to paragraph 138(1)(b) of the Act; (*conditions de l'environnement physique*)

"pilot scheme" means a scheme 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, and may include an intermediate casing; (*colonne de production*)

"production control system" means the system provided to control the operation of and monitor the status of equipment for the production of petroleum, and includes the installation and workover control system; (*système de contrôle de la production*)

"production facility" means equipment for the production of petroleum 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 dependent personnel

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accommodations, but does not include any associated platform, artificial island, subsea production system, drilling equipment or diving system; (*matériel de production*)

"production installation" means a production facility and an 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 an operation that is related to the production of petroleum from a pool or field; (*travaux de production*)

"production operations authorization" means an authorization that is issued to an operator by the Board pursuant to paragraph 138(1)(b) of the Act to conduct production operations; (*autorisation d'exécuter des travaux de production*)

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

"production riser" means a conduit used for conveying fluids to or from the 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 to measure the rates at which fluids are produced from or injected into a well in a pool for reservoir evaluation purposes; (*essai de production*)

"recovery" means the recovery of petroleum under foreseeable economic and operational conditions; (*récupération*)

"safety system" means the automatic system installed on a production installation that is capable of detecting hazardous conditions or abnormal operating conditions on the installation and is designed so that, depending on the condition, the system is able to initiate a safe shutdown of the production installation or portion thereof; (*système de sécurité*)

"safety zone" means the zone at and under sea level that covers the greater of
(a) the area comprised within 500 m of a production installation, and
(b) the area comprised within 50 m of the anchor pattern of a production installation; (*périmètre de sécurité*)

"SCSSV" means a surface-controlled subsurface safety valve; (*VSSCS*)

"spill" means a discharge, emission or escape of a substance; (*rejet*)

"subsea production system" means equipment and structures that are located on or below, or buried in, the seafloor for the production of petroleum 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 used to provide transportation for or assistance to persons on the site of a production operation or production project; (*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 project or a production operation; (*déchets*)

"well operation", in respect of a development well that has been completed, means a re-completion, stimulation, workover or wireline operation; (*travaux relatifs à un puits*)

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"well operation program authorization" means an authorization that is issued to an operator by the Board pursuant to paragraph 138(1)(b) of the Act to conduct a well operation program; (*autorisation d'exécuter un programme de travaux relatifs à un puits*)

"workover", in respect of a development well, means any operation that requires the removal of the christmas tree; (*reconditionnement*)

"zone" means any stratum or any sequence of strata that is designated by the Chief Conservation Officer as a zone. (*couche*)

(2) A reference to a standard or specification in these Regulations shall be considered to be a reference to that standard or specification as amended from time to time.

APPLICATION

3. These Regulations apply

- (a) to every operator who develops a production site or produces petroleum in the offshore area; and
- (b) in respect of every operation related to the production of petroleum from a well in the offshore area.

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 or for a production operations authorization, shall be submitted to the Chief Conservation Officer or the Chief Safety Officer, or both, as applicable under the Act.

PART I

APPROVALS AND AUTHORIZATIONS

General

5. (1) An Approval to Drill granted in respect of a development well under the *Newfoundland Offshore Petroleum Drilling Regulations* is prescribed as an approval for the purposes of subsection 139(1) of the Act.

(2) No person shall develop a pool or field, including the initiation of a pilot scheme, except in accordance with the approved development plan.

6. In addition to any approval requirements the Board deems appropriate pursuant to subsection 139(4) of the Act, an operator shall apply for the approval of an amendment to the approved development plan in accordance with subsection 139(5) of the Act, where

- (a) the operator proposes to
 - (i) make significant changes in the nature or timing of development activities of the pool or field,
 - (ii) make substantial modifications or additions to existing production facilities at the pool or field, or
 - (iii) initiate, in the pool or field, a pilot scheme or reservoir depletion scheme that differs from the one set out in the approved development plan;
- (b) pool performance or new geological information shows that the recovery method needs to be changed to achieve maximum recovery of petroleum reserves from the pool or field; or
- (c) increased ultimate recovery of petroleum would be economically obtainable by adopting new technology or methodology.

7. (1) No person shall commence production from a pool or field, other than by means of a formation flow test conducted in accordance with the *Newfoundland Offshore Petroleum Drilling Regulations*, unless the person has a production operations authorization.

(2) No person shall carry on production operations except in accordance with

- (a) these Regulations;

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- (b) the approved development plan; and
 - (c) the conditions of the production operations authorization.
- (3) Before an operator commences production of petroleum from a pool or field, the operator shall submit a survey to the Chief Conservation Officer showing the location of the production installation for that pool or field.

Production Operations Authorization

8. (1) An operator may apply for a production operations authorization by submitting to the Chief Conservation Officer five copies of an application in the form referred to in section 138 of the Act and containing the information fixed by the Board pursuant to that section.
- (2) A production operations authorization is subject to the following requirements, namely, that
- (a) a valid certificate of fitness, including all amendments thereto, is issued in respect of the production installation used for the production operation;
 - (b) every approval required by Parts II to XI is obtained according to the applicable requirements;
 - (c) a safety plan including all amendments thereto, is approved pursuant to subsection 51(4);
 - (d) an environmental protection plan exists; and
 - (e) the operator conducts the production operations in accordance with the plans, and all amendments thereto, referred to in paragraphs (c) and (d), and in accordance with all approvals granted pursuant to these Regulations.
- (3) Where a production operations authorization has been issued, no amendment shall be made to the production operations unless it is approved by the Board on submission of a revised application, in accordance with this section.

Approvals

9. The Chief Conservation Officer, the Chief Safety Officer, or both, as applicable under the Act, may grant an approval pursuant to subsection 11(3), 12(2), 13(4), 18(7), 30(2), 31(2), 32(4), 33(4), 36(2) or 37(2), section 43, or subsection 49(3), 51(4) or (5), 60(4), 62(2) or 72(2).

Evidence of Financial Responsibility

10. For the purposes of subsection 138(4) of the Act and in respect of an authorization issued pursuant to paragraph 138(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 petroleum, the operator shall, before the work or activity is started, submit to the Board
- (a) evidence of financial responsibility, of a type and in an amount that is sufficient to ensure that the operator
 - (i) completes the work or activity, and
 - (ii) leaves the site where the work or activity was carried on in the state required by Part VII or by the Board pursuant to subsection 138(4) of the Act; and
 - (b) evidence that the operator is able to meet any financial liability that might be incurred in connection with the work or activity.

PART II

WELL, POOL AND FIELD EVALUATIONS

Cores

11. (1) No operator shall commence drilling a development well in a pool or field unless a coring program for the pool or field has been approved pursuant to subsection (3).
- (2) 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.
- (3) The Chief Conservation Officer shall approve a development well coring program where the program will provide sufficient geological and reservoir data to evaluate the pool or field.
- (4) The operator shall carry out routine and special core tests on samples taken from the cores recovered in accordance with the program approved pursuant to subsection (3).

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Production Testing

- 12.** (1) No operator shall put a development well into production unless the Chief Conservation Officer has approved, pursuant to subsection (2),
- (a) a testing program in respect of the development well; or
 - (b) a testing program in respect of another well that the operator plans to use for the development well.
- (2) The Chief Conservation Officer shall approve a testing program where the program will enable the operator to
- (a) obtain data on the deliverability or productivity of the development well;
 - (b) establish the characteristics of the reservoir; and
 - (c) obtain representative samples of the formation fluids.
- (3) Where a development well is subjected to a well operation that could change the deliverability, productivity or injectivity of the well, the operator shall, forthwith after the well operation is completed, test the well to determine the effects of the well operation on the deliverability, productivity or injectivity of the well.
- (4) The operator shall conduct every test and evaluation of the development well in accordance with the testing program approved pursuant to subsection (2).
- (5) Where a conservation officer requests to be informed by the operator of the intent to conduct a production test on a development well, the operator shall inform the conservation officer at least 48 hours before the operator commences the test.
- (6) The operator shall submit forthwith to the Chief Conservation Officer the results of every production test that the operator carries out on the development well.

Pool Pressure Measurements and Surveys

- 13.** (1) Before an operator commences production from a completion interval of a development well, the operator shall determine the static pressure of the pool at the completion interval.
- (2) The operator shall conduct a pool pressure survey, in accordance with the program approved pursuant to subsection (4),
- (a) 12 months after the pool is initially put into production and at least once every 12 months thereafter; or
 - (b) at the times approved pursuant to paragraph (4)(b).
- (3) The operator shall, at least 60 days before carrying out a pool pressure survey referred to in subsection (2), submit to the Chief Conservation Officer 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 static pressure.
- (4) The Chief Conservation Officer shall approve
- (a) a pool pressure survey program submitted pursuant to subsection (3) where the implementation of the program will produce an accurate determination of the static pressure in the pool; and
 - (b) a schedule for conducting a pool pressure survey other than at the times described in paragraph (2)(a) where the schedule is justified by operational factors.
- (5) Where an operator conducts a pool pressure survey, the operator shall do so in accordance with Alberta Energy Resources Conservation Board Guide G-40, *Pressure and Deliverability Testing Oil and Gas Wells*.

Cased Hole Logs

- 14.** (1) An operator shall run a cased hole log on a well if it is technically feasible to do so and the cased hole log would significantly contribute to the evaluation of the pool in which the well is located.
- (2) Where, pursuant to subsection (1), an operator runs a cased hole log, the operator shall, forthwith, submit a copy of the cased hole log to the Chief Conservation Officer.

Fluid Sampling and Analysis

- 15.** (1) Where an operator completes a well in a pool, the operator shall, where it would contribute to

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- the evaluation of the pool or field in which the pool is located,
- (a) take a subsurface sample of reservoir fluids from the well; or
 - (b) where it is not feasible to take a subsurface sample of reservoir fluids from the well, collect a sample of the produced fluids at the surface of the well and recombine them at the initial reservoir conditions.
- (2) An operator shall obtain and analyse 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 a pool has changed.
- (3) An operator shall collect and analyse the samples of petroleum referred to in subsection (1) or (2) in accordance with API RP 44, *Recommended Practice for Sampling Petroleum Reservoir Fluids*.
- (4) Where water is produced from a well, the operator shall
- (a) determine in accordance with good production practices whether formation water is being produced from the well; and
 - (b) collect samples from the well and analyse them to determine the probable source of the water.
- (5) An operator shall analyse water samples collected under subsection (1), (2) or (4) in accordance with API RP 45, *Recommended Practice for Analysis of Oil-Field Waters*.
- (6) An operator shall provide the Chief Conservation Officer with 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 as determined in accordance with section 11.070 of the *Oil and Gas Conservation Regulations* of Alberta.

PART III

OPERATION OF WELLS

General

- 16.** (1) In order to ensure the safe operation of a development well, the operator shall operate the well in a manner that is consistent with these Regulations and that provides for
- (a) the integrity of the well and the equipment used at the well for production purposes;
 - (b) safe well operations;
 - (c) the protection of the environment;
 - (d) the evaluation and monitoring of the performance of the well; and
 - (e) the efficient recovery of petroleum from the well.
- (2) An operator shall, where practicable, correct forthwith any mechanical well condition that may have an adverse effect on production of petroleum from or injection of fluids into the development well.
- (3) An operator shall improve the injection or production profile of a development well or alter the completion interval of a development well where it is necessary to do so to avoid significant loss in ultimate recovery of petroleum.
- (4) Where different pressure and inflow characteristics of two or more pools could adversely affect recovery of petroleum from any of those pools, the operator of a development well that enters any of those pools shall operate the well
- (a) as a single pool well;
 - (b) as a segregated multi-pool well; or
 - (c) in any other manner that minimizes, to the greatest possible degree, the interflow between the pools.
- (5) The operator of a segregated multi-pool well shall
- (a) after the well is completed, conduct a segregation test to confirm that segregation has been established within and outside the well casing; and
 - (b) conduct a segregation test forthwith where the operator has reason to doubt that segregation is being maintained.

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Well Operation Program Authorization

- 17.** (1) No person shall conduct a well operation in respect of a development well in a pool or field unless the well operation is conducted in accordance with the well operation program authorization.
- (2) Information submitted by an operator in a drilling program authorization application may, where relevant, also be set out in the documentation submitted to obtain a well operation program authorization.
- (3) An operator may apply for a well operation program authorization by completing and submitting to the Chiefs three copies of an application in the form and manner fixed by the Board and the following information:
- (a) a description of the operating procedures, general arrangement drawings and specification of the installation from which the well operation is to be performed;
 - (b) a copy of a valid certificate of fitness for the installation from which the operation is to be performed;
 - (c) the location and configuration of all wells, both existing and planned, for which application is made;
 - (d) a schematic and the relevant engineering data on a typical development well including the wellhead, christmas tree, casing and tubing designs, cementing program, downhole equipment and production control system;
 - (e) a description of the completion fluids to be used;
 - (f) a schematic and the relevant engineering data on pressure control facilities, tools and equipment that may be used in performing the well operation;
 - (g) a description of the operating procedures to be used for conducting all well operations that may be foreseen, including emergency pressure control procedures; and
 - (h) a description of the training, specialized skills and the relevant experience of the personnel who will be engaged in well operations, in accordance with sections 62 and 63.
- (4) The well operation program authorization
- (a) is valid for the period, not exceeding 3 years specified in the authorization;
 - (b) is subject to the continued validity and force of the certificate of fitness;
 - (c) is conditional on the operator using the equipment and following the procedures set out in subsection (3); and
 - (d) shall be posted on the production installation, mobile offshore drilling unit or vessel.

Approval for a Well Operation

- 18.** (1) Subject to subsection (2), no person shall conduct a well operation in respect of a development well in a pool or field unless that person has obtained an approval for a well operation granted by the Chiefs, in accordance with this section.
- (2) An operator may, without obtaining the approval referred to in subsection (1), conduct a wireline or coiled tubing operation through a christmas tree located above sea level where
- (a) the operation is approved by the well operation program authorization;
 - (b) the operation does not
 - (i) alter the completion interval,
 - (ii) adversely affect recovery, or
 - (iii) result in damage to the completion equipment or pressure retaining barriers; and
 - (c) the information referred to in subsection 17(3) respecting equipment, operating procedures, training and qualifications of the personnel conducting the operations has been submitted in accordance with that subsection.
- (3) An operator may apply for an approval for a well operation by completing and submitting to the Chiefs three copies of an application in the form and manner fixed by the Chiefs, at least 21 days, if practicable, prior to the start date of the proposed operation.
- (4) An operator shall submit the following information with the application for approval for a well operation:
- (a) the name and type of well;
 - (b) the name of the contractor and a description of the equipment to be used to conduct the well operation; and

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- (c) a technical description of the well operation, including
 - (i) the objective of the well operation,
 - (ii) a schematic and description of the downhole equipment and tubulars,
 - (iii) a schematic of, and relevant engineering data on, the current christmas tree and production control system,
 - (iv) the bottomhole shut-in pressure,
 - (v) a description and the properties of the workover or completion fluid, and
 - (vi) the procedures proposed for the well operation.
- (5) Where an operator proposes to suspend or abandon a completion interval in a development well, the operator shall submit the following information with an application for approval for a well operation:
 - (a) the production rates and the corresponding fluid ratios or injection rates;
 - (b) the shut-in wellhead pressure;
 - (c) the bottomhole pressure and production characteristics of adjacent wells; and
 - (d) an assessment of the effect of the proposed well operation on ultimate recovery.
- (6) In addition to the requirements of subsection (5), where an operator requests the approval of the Chief Conservation Officer to abandon a zone or well, the operator shall submit to the Chief Conservation Officer
 - (a) a report setting out
 - (i) the amount of oil and gas recovered from the well located in the pool, and
 - (ii) an estimate of the amount of gas-in-place and oil-in-place remaining in the pool in which the well is located; and
 - (b) documentation that demonstrates that
 - (i) production from the well can no longer be economically maintained,
 - (ii) alternative recovery methods have been thoroughly evaluated, and
 - (iii) alternative uses for the well have been evaluated.
- (7) The Chiefs shall approve the application for approval for a well operation and any amendments to the approval where the operation will be conducted in a safe manner and will not cause waste.
- (8) An operator shall ensure that a copy of the approval for a well operation is posted at the production installation, mobile offshore drilling unit or vessel.
- (9) Where a well operation cannot be completed in accordance with the approval, the operator shall
 - (a) leave the well in as secure a condition as is practicable;
 - (b) inform the Chiefs that the well operation cannot be conducted in accordance with the approval; and
 - (c) complete the well operation in accordance with a revised approval for a well operation.
- (10) Where immediate action must be taken to avoid losing control of a well, such action may be taken without the prior consent of the Chiefs.
- (11) Where well operations are conducted pursuant to subsection (10), the operator shall inform the Chiefs forthwith and shall submit information describing the well operation as soon as possible in accordance with subsection (4).
- (12) When a conservation officer requests to be informed by the operator of the time the operator intends to conduct the well operation for which approval for a well operation has been granted, the operator shall inform the conservation officer of that time at least 48 hours before that time.

Precautions

- 19. (1) An operator shall ensure that, during any well operation, two pressure-containing barriers are in place.
- (2) An operator shall test the christmas tree, production casing and tubing string to the maximum pressure to which it is likely to be subjected after initial installation and after every workover.
- (3) An operator shall ensure that the maximum injection pressure used during any well operation does not exceed the lesser of
 - (a) the burst pressure of the weakest joint in the casing or tubing used for injection; and
 - (b) the rated working pressure of the christmas tree and wellhead.

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- 20.** (1) Subject to subsection (2), an operator shall submit to the Chief Conservation Officer, within 30 days after the completion of a well operation, a report that includes
- (a) a schematic of and relevant engineering data on the downhole equipment, tubulars, christmas tree and production control system;
 - (b) a description of the completion fluid properties; and
 - (c) a summary of the well operation, including any problems encountered during the well operation.
- (2) Subsection (1) does not apply in respect of a wireline or coiled tubing operation described in subsection 18(2) if the operator submits an annual report of all such wireline or coiled tubing operations conducted in the previous year by that operator.

Abandonment or Suspension of a Zone or Well

- 21.** (1) A zone or well shall be abandoned or suspended in accordance with the *Newfoundland Offshore Petroleum Drilling Regulations*.
- (2) In addition to the requirements of subsection (1) an operator shall, on the request of the Chief Conservation Officer, conduct an inflow test.
- (3) Subject to subsection (4), where a well is shut in for a period greater than 3 months,
- (a) the SCSSV shall be closed;
 - (b) a plug shall be placed in the tubing below the mud line; and
 - (c) the plug shall be pressure tested to a pressure of not less than 7000 kPa above the shut-in wellhead pressure.
- (4) The operator may apply to the Chief Conservation Officer for an extension of the time period to place a plug in the tubing below the mud line.

Production Casing and Tubing

- 22.** (1) An operator shall ensure that the production casing and tubing used in a well are designed
- (a) to permit the installation of artificial lift equipment wherever there is reason to believe that artificial lift equipment might be required in order to maintain flow rates and increase ultimate recovery from the pool or field;
 - (b) to withstand the conditions that might have a detrimental effect on the structural integrity of the casing and tubing; and
 - (c) with respect to sour service, to meet National Association of Corrosion Engineers, NACE Standard MR0175-92 Item No. 53024 *Standard Material Requirements, Sulfide Stress Cracking Resistant — Metallic Materials for Oilfield Equipment*.
- (2) An operator shall ensure that the production casing used in a well is equipped and cemented with sufficient cement to
- (a) isolate all petroleum zones;
 - (b) isolate abnormally-pressured intervals from normally-pressured intervals;
 - (c) ensure adequate cement bonding across each production zone
 - (i) to a minimum of 60 m above the production zone, and
 - (ii) to a minimum of 30 m below the production zone or to the guide shoe of the production casing, whichever is the lesser; and
 - (d) ensure that any forces that could result from injection of fluids into the annulus or from any other phenomena will not result in stresses that exceed the design stress limits of the casing.
- (3) An operator shall ensure that the tubing hanger and all tubing and downhole equipment that is an integral part of a tubing string is designed to provide for sufficient resistance to burst, tension, collapse and buckling that may result from installation and operational loads and from pressure and temperature differentials, so that production and maintenance operations can be conducted in a safe and efficient manner.
- (4) An operator shall, when requested by the Chief Safety Officer, conduct a triaxial stress analysis on any tubulars installed in a well.

Fluids for Well Operations

- 23.** An operator shall ensure that the fluids used in well operations are of a type that minimizes

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detrimental effects on the production zone and subsurface equipment.

Annulus Between Well Tubulars

- 24.** An operator shall ensure that a well is not placed in production unless the annulus between the production casing and tubing is
- (a) effectively isolated from the completion interval; and
 - (b) filled with a fluid of sufficient density to overbalance the formation pressure, except where the well is on gas lift.

Surface Controlled Subsurface Safety Valves

- 25.** (1) Subject to subsection (2), an operator shall ensure that a development well is equipped with a SCSSV that is installed
- (a) in the tubing at least 30 m below the sea floor; and
 - (b) in the annulus of the well at least 30 m below the sea floor where gas lift is used and where the wellhead is located above sea level.
- (2) Where a development well is located in a zone where permafrost is present in unconsolidated sediments, the operator shall install an SCSSV in the tubing at least 30 m below the base of the permafrost.
- (3) An operator shall not operate a development well unless the specifications, design, installation, operation and testing of each SCSSV installed on the well are in accordance with API Spec 14A *Specification for Subsurface Safety Valve Equipment*, and the API RP 14B *Recommended Practice for Design, Installation, Repair and Operation of Subsurface Safety Valve Systems*.
- (4) An operator shall ensure that every SCSSV installed in a development well is
- (a) pressure tested forthwith after installation; and
 - (b) function tested at least once every six months after the test referred to in paragraph (a).

Wellhead and Christmas Tree Equipment

- 26.** (1) An operator shall ensure that the wellhead and christmas tree equipment, including any casing and tubing hangers and sealing devices, are designed, constructed, installed and maintained to withstand
- (a) loads imposed in the well including those resulting from pressure and temperature differentials; and
 - (b) corrosion, erosion and wear.
- (2) The operator of a development well exposed to a sour environment shall ensure that the wellhead and christmas tree equipment are designed and constructed in accordance with, National Association of Corrosion Engineers, NACE Standard MR0175-92 Item No. 53024 *Standard Material Requirements, Sulfide Stress Cracking Resistant — Metallic Materials for Oilfield Equipment*.
- (3) An operator shall ensure that all production equipment above the water level complies with
- (a) Part II of API Spec 6FB *Specification for Fire Test for End Connections*; and
 - (b) API Spec 6FA *Specification for Fire Test For Valves*.
- (4) An operator shall ensure that the wellhead and christmas tree equipment conforms
- (a) when the wellhead is above water level, with API Spec 6A *Specification for Wellhead and Christmas Tree Equipment*; and
 - (b) when the wellhead is below water level, with
 - (i) API RP 17A *Recommended Practice for Design and Operation of Subsea Production Systems*, and
 - (ii) API Spec 17D *Specification for Subsea Wellhead and Christmas Tree Equipment*.
- (5) An operator shall configure the annulus access on a production well to allow monitoring and venting of pressure in the annulus between the production casing and tubing.
- (6) The wellhead and christmas tree assembly shall be designed to have a means of determining
- (a) the pressure and temperature at the tubing head; and
 - (b) the pressure at the casing head and, where the wellhead is located above sea level, in each casing annulus.

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Emergency Shutdown Valves

- 27.** (1) An operator shall ensure that every christmas tree is equipped with at least two emergency shutdown valves
- (a) on each flow path through the tree; and
 - (b) on the annulus access, where the well is configured for gas lift operations or where the christmas tree is located below sea level.
- (2) The emergency shutdown valves required pursuant to subsection (1) shall be fail safe close under full working pressure, under suction in the tubing bore and at the maximum flow rate likely to occur in the tubing.
- (3) Every oil and gas riser on a production installation, excluding the export riser to a tanker loading system, shall be equipped with a topside fail safe close emergency shutdown valve placed in a safe and accessible location to protect it from damage and to permit inspection, maintenance and repairs.
- (4) Every petroleum flowline to or from a production installation, excluding a flowline to a tanker loading system, shall be equipped with a subsea fail safe close emergency shutdown valve located at a safe distance from the installation.
- (5) Every emergency shutdown valve required pursuant to subsections (1), (3) and (4) shall
- (a) be designed, constructed and installed in accordance with API Spec 14D *Specification for Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Service*; and
 - (b) be maintained and repaired in accordance with API RP 14H *Recommended Practice for Installation, Maintenance and Repair of Surface Safety Valves and Underwater Safety Valves Offshore*.
- (6) No operator shall operate a development well unless every emergency shutdown valve required pursuant to subsection (1) and SCSSV required pursuant to section 25 is in working order.
- (7) No operator shall operate a production installation unless every emergency shutdown valve required pursuant to subsections (3) and (4) is in working order.

Simultaneous Drilling and Production Operations

- 28.** (1) An operator shall include in the safety plan submitted pursuant to subsection 51(1) procedures to ensure the safety of persons on board the production installation and the protection of the environment, where the operator intends to conduct simultaneously with the production of petroleum
- (a) the drilling and completion of a well;
 - (b) a well operation; or
 - (c) a construction or related activity.
- (2) No operator shall conduct an activity referred to in subsection (1) simultaneously with the production of petroleum except in accordance with the safety plan approved pursuant to subsection 51(4).

PART IV

CONSERVATION REQUIREMENTS

Reservoir Management

- 29.** (1) An operator shall provide for maximum recovery of oil and gas from a pool or field.
- (2) An operator shall locate wells so as to provide, to the extent possible, for maximum recovery of oil and gas from a pool or field.
- (3) An operator shall carry out and submit to the Chief Conservation Officer infill drilling studies and enhanced recovery studies where the operator has reason to believe that infill drilling or implementation of an enhanced recovery scheme could result in increased recovery of oil and gas from a pool or field.

Voidage Replacement

- 30.** (1) Where the operator of an oil pool carries out an oil recovery scheme that involves pressure

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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, unless an approval is granted pursuant to subsection (2),

- (a) inject fluid into the pool at a volume greater or less than that being withdrawn; or
- (b) permit a rate of production from the pool that results in a lower pool pressure than the pool pressure set out in the approved development plan.

(2) The Chief Conservation Officer shall approve an imbalance of volumes or a different rate of production where the ultimate recovery from the pool will not be reduced.

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

Commingled Production

31. (1) No operator shall engage in commingled production except in accordance with an approval granted pursuant to subsection (2).

(2) The Chief Conservation Officer may approve commingled production where the production will not reduce the ultimate recovery of petroleum from the pools.

(3) An operator engaging in commingled production shall estimate the total volume and the rate of production of each fluid produced from each pool.

Flaring and Venting of Gas

32. (1) No operator shall flare or vent gas during a production operation except in accordance with subsections (2) to (4).

(2) Subject to any requirements determined by the Board pursuant to subsection 138(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 volumes not greater than those necessary to unload and clean up a well; or
- (b) an extended production test or well clean-up operation, for a period, and at rates and volumes, 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 Chiefs may approve the flaring or venting of gas during a production operation at a rate and volume and for the period set out in the approval where the flaring or venting does not constitute waste or an undue safety hazard.

Disposal of Oil

33. (1) No operator shall burn or otherwise dispose of oil except in accordance with subsections (2) to (5).

(2) An operator may burn or otherwise dispose of oil in accordance with section 17 of the *Newfoundland Offshore Petroleum Installations Regulations*

- (a) during a production test, over a period not exceeding 24 hours at rates and volumes not greater than those necessary to unload, clean up and evaluate a well;
- (b) during an extended production test or well clean-up operation, for a period, and at rates and volumes, set out in the approval; or
- (c) where the oil is waste oil or contaminated oil that cannot be economically recovered.

(3) An operator may burn or otherwise dispose of oil where the disposal is necessary because of an emergency situation if the operator

- (a) undertakes such measures as may be necessary to limit the damage to the natural environment;
- (b) cleans up, to the extent practicable, any significant pollution caused by the disposal; and
- (c) notifies the Board of the disposal.

(4) The Chiefs shall approve burning or other disposal of oil where the burning or disposal does not constitute waste or an undue safety hazard or damage to the natural environment.

(5) An operator shall not produce from a well during a production test an amount of oil that exceeds a quantity that can be safely stored, burned or otherwise disposed of in accordance with section 17 of the *Newfoundland Offshore Petroleum Installations Regulations*.

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PART V

PRODUCTION RATES

General

34. An operator shall produce petroleum from a pool or field in accordance with good production practices to achieve maximum recovery of petroleum from the pool or field and at the applicable rate specified in the approved development plan for that pool or field.

PART VI

MEASUREMENTS AND TESTING

General

35. (1) Subject to section 36, an operator shall measure and record the rate of flow and the total volume of

- (a) each fluid that is
 - (i) produced from or injected into each well, and
 - (ii) transferred from the production installation, sold, flared or disposed of;
- (b) gas used
 - (i) as fuel for production operations, or
 - (ii) to assist gas-lift operations;
- (c) oil that is used as a hydraulic power fluid for artificial lift; and
- (d) each fluid that enters or leaves a processing plant.

(2) Where an operator uses a meter to measure 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 a flow 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 measurement.

(3) An operator shall ensure that every valve, meter and prover tap is installed in such a manner that a reasonably uniform flow rate can be maintained through any meter referred to in subsection (2).

Prorated Production

36. (1) An operator shall allocate group production of oil and gas from wells in a pool on a *pro rata* basis to the wells in accordance with a flow system and flow calculation procedure and an allocation procedure, approved pursuant to subsection (2).

(2) The Chief Conservation Officer shall approve a flow system and flow calculation procedure and an allocation procedure if the system and procedures will permit reasonably accurate determination of the production from individual wells and the transfer of fluids from the production installation.

Transfer Meters

37. (1) An operator shall, in respect of any transfer meter used in any production operation, submit to the Board such details of the meter's specifications and operating procedures as are specified by the Board.

(2) The Chief Conservation Officer shall approve a transfer meter referred to in subsection (1) as part of the flow system, if the meter and operating procedures will permit the determination of volumes to an accuracy required for transfer purposes.

(3) At the request of the Chief Conservation Officer, an operator shall submit to the Chief Conservation Officer a copy of any meter calibration report for the purpose of verifying the accuracy of the meter.

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Group Production Meters and Test Production Meter Calibration

38. (1) Where an operator uses a group production meter or test production meter to measure fluids produced from a 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.

(2) An operator shall replace any group production meter that cannot meet the mean meter factor tolerance prescribed by section 14.12 of the *Oil and Gas Conservation Regulations* of Alberta.

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.

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.

Condensate Measurement

41. (1) Where an operator 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.

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

Metering Records

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

Testing Frequency

43. The operator of a development well that is producing oil or gas from a pool or field shall test the well at least twice per month.

Accuracy of Measurement

44. An operator shall, at the request of the Chief Conservation Officer, test the accuracy of a meter used by the operator to measure the production of petroleum, and submit the results to the Chief Conservation Officer.

PART VII

ENVIRONMENTAL REQUIREMENTS

Physical Environmental Monitoring Equipment

45. The operator of a production installation shall equip the production installation with facilities and equipment for observing, measuring and recording the physical environmental conditions set out in subsections 46(2) and (3).

Physical Environmental Observation and Reporting

46. (1) The operator of a production installation shall maintain a comprehensive record of observations of the physical environment made by the operator during the life of the production project.

(2) The operator of a production installation shall observe and record the following conditions:

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- (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) once a day, the amount of precipitation in the preceding day.
- (3) 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.
- (4) The operator of a production installation shall obtain, during the period when operations are carried out, forecasts of meteorological conditions and ice movements each day, and each time during the day that the meteorological conditions or ice movements change substantially from those forecasted.

Construction Disturbances

47. No person shall construct or install any production installation unless the production installation is designed and constructed or installed in such a manner as to minimize, to the extent reasonably practicable, any permanent disturbance to the seabed or any other part of the natural environment.

Hazards

48. An operator shall take all reasonable precautions to protect a production installation and all associated equipment at the production site from naturally occurring hazards and hazards associated with the operations carried out at the production site.

Handling of Waste Material and Produced Water

- 49.** (1) An operator shall ensure that all waste material produced and stored at a production site is treated, handled and disposed of in accordance with the environmental protection plan.
- (2) An operator shall not carry out a scheme for the underground injection of water produced from a well except in accordance with an approval granted pursuant to subsection (3).
- (3) The Chief Conservation Officer shall approve a scheme for the underground injection of water produced from a well if the scheme will avoid surface pollution and will not adversely affect the recovery of petroleum from a pool or field.

De-commissioning

50. No person shall de-commission a production installation at a pool or field other than in accordance with the approved development plan or a requirement of an authorization issued pursuant to paragraph 138(1)(b) of the Act.

PART VIII

OPERATIONS

Safety Plan and Environmental Protection Plan

- 51.** (1) An operator shall develop and submit to the Chief Safety Officer a safety plan that provides for all matters related to the safety and health of personnel and the integrity of an installation and that includes
- (a) a statement of the operator's safety management policy and a description of the procedures established to ensure its effectiveness;

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- (b) a summary of the results of all studies undertaken to identify hazards and to assess risks to the installation and means to mitigate those risks;
 - (c) a description of the features incorporated in the design of the installation and of the equipment provided to eliminate hazards and reduce risks to the occupational safety and health of personnel;
 - (d) a description of the procedures established and the manuals provided for the safe operation and maintenance of the installation;
 - (e) the standards adopted for the training and qualification of personnel;
 - (f) a description of the command structure on the installation and for the operator's onshore base and their relationship to each other;
 - (g) contingency plans for response to and mitigation of accidental events affecting the safety of persons on board, or the integrity of, the installation;
 - (h) a description of the physical environmental monitoring equipment; and
 - (i) the distance from the production installation, at which the standby vessel referred to in section 56 shall remain during normal operations.
- (2) An operator shall develop and submit to the Chief Conservation Officer an environmental protection plan that provides for the protection of the natural environment and includes
- (a) a description of the program established to monitor and the measures adopted to minimize or mitigate the effect on the natural environment of routine operations on a production installation;
 - (b) contingency plans for response to, and mitigation of, the accidental spill of petroleum or hazardous substances;
 - (c) a description of equipment and procedures for treatment, handling and disposal of waste material;
 - (d) compliance monitoring programs to ensure that the composition of spilled waste material is in accordance with the limits specified in the environmental protection plan;
 - (e) a summary of the chemical substances intended for use in operations and maintenance on the production installation; and
 - (f) plans for environmental restoration of the production site following termination of production.
- (3) The plans submitted pursuant to subsections (1) and (2) shall address abnormal conditions and emergencies that can reasonably be anticipated, including
- (a) serious injury, persons overboard or loss of life;
 - (b) collisions;
 - (c) loss of well control;
 - (d) forecast or actual physical environmental conditions that may result in loads or load effects on the production installation in excess of those for which it was designed;
 - (e) oil spills;
 - (f) fire; and
 - (g) explosions.
- (4) The Chief Safety Officer shall approve the safety plan submitted pursuant to subsection (1), including any amendments thereto, where adherence to the plan will ensure the safety, health and training of persons on board the installation and preservation of the integrity of the installation.
- (5) The Chief Conservation Officer shall approve the environmental protection plan submitted pursuant to subsection (2), including any amendments thereto, where adherence to the plan will provide for the protection of the natural environment.
- (6) An operator shall ensure that a copy of every plan approved pursuant to subsections (4) and (5) is
- (a) kept at the installation; and
 - (b) available for examination on request by any person at the installation.
- (7) An operator shall update the inventory of equipment described in each plan approved pursuant to subsections (4) and (5) and shall submit the updated inventory to the Chiefs within 45 days after the completion of any significant modification of or major repairs to any major component of the equipment.
- (8) The plans submitted pursuant to subsections (1) and (2) shall provide for coordination with any relevant municipal, provincial or federal emergency response plan.
- (9) An operator shall ensure that all equipment required by the plans approved pursuant to

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subsections (4) and (5) is available for use and in an operable condition.

(10) On request of the Chiefs, drawings and other documentation referred to in the plans submitted pursuant to subsections (1) and (2) shall be submitted by an operator to the Chiefs.

Equipment Requirements

- 52.** An operator shall ensure that equipment and related machinery used at a production installation
- (a) are used within safe operating limits;
 - (b) have a control system and safety guards to protect persons on board the installation and the natural environment;
 - (c) are not used unless there is a safe means of entry to and exit from the area where the equipment and machinery are located; and
 - (d) are located in such a manner as to minimize any potential danger to the production installation or to the operating personnel and to minimize any permanent damage to the natural environment.

Testing Requirements for Valves and Sensors

- 53.** (1) Subject to subsection (3), an operator shall ensure that
- (a) the components of the safety system of a production installation are tested, and malfunctions of the system are recorded in accordance with API RP 14C *Recommended Practice for Analysis, Design, Installation and Testing of Basic Surface Safety Systems for Offshore Production Platforms*;
 - (b) every emergency shutdown station that forms part of the safety system is tested at least once every 30 days;
 - (c) at least once every month,
 - (i) every surface safety valve installed on a christmas tree is tested for function and for leakage,
 - (ii) every pressure sensor is tested,
 - (iii) every liquid level control device is tested by activating the sensor for the device,
 - (iv) every check valve installed in the piping system is tested for leakage,
 - (v) every automatic inlet shutdown valve on a vessel or compressor that is actuated by a sensor is tested,
 - (vi) every shutdown valve that is located in a liquid discharge line from a vessel and is actuated by a low-level sensor is tested, and
 - (vii) every shutdown valve installed on a production riser and associated manifold is tested;
 - (d) every shutdown control installed on a compressor that is actuated by temperature sensors is tested at least once every six months;
 - (e) every pressure-relief valve is tested at least once every 12 months, either through bench-testing or, where possible, in situ testing using an external pressure source; and
 - (f) all fire, hydrogen sulfide and gas detection systems are tested for operation every three months and recalibrated if necessary.
- (2) The testing of an emergency shutdown station pursuant to paragraph (1)(b) may be carried out by activating a surface safety valve installed on a christmas tree, a subsurface safety valve installed in the tubing, or any other valve that can be activated from the station.
- (3) Paragraph (1)(c) does not apply to valves or sensors that are located below sea level.
- (4) An operator shall report to the Chief Safety Officer forthwith every failure or unsuccessful test of the safety system of a production installation or of any component of the safety system.

Maintenance and Replacement of Equipment

- 54.** An operator shall ensure that
- (a) any defective equipment used in a production installation that represents a safety hazard for the personnel or the installation is repaired or replaced forthwith;
 - (b) any procedure used in a production installation that the operator has reason to believe is unsafe is revised forthwith and all personnel affected are informed of the revision;
 - (c) any documentation containing a procedure that has been revised under paragraph (b) is

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amended to reflect the revision;

(d) programs are instituted to monitor, in accordance with good engineering practice, the extent of corrosion and erosion of the components of the production installation; and

(e) at the request of the Chief Safety Officer, the results of any programs instituted pursuant to paragraph (d) are reported to the Chief Safety Officer.

Support Craft

55. (1) No operator shall use a support craft unless the craft is designed, constructed and maintained so as to be capable of operating safely in the foreseeable conditions of the physical environment prevailing in the vicinity of the production installation, and an operator using a support craft shall, at the request of the Chief Safety Officer, demonstrate that capability to the Chief Safety Officer.

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

(a) the navigational, safety and marine aids required under the *Canada Shipping Act*; and

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

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

(4) A support craft shall not enter the safety zone around a production installation without the consent of the installation manager.

Standby Vessel

56. (1) The operator of a manned production installation shall ensure that a standby vessel is available during storm conditions, at a distance, approved by the installation manager, that is not greater than that required for 20 minutes return time unless a longer period is approved by the installation manager pursuant to section 193.2 of the Act.

(2) If the standby vessel exceeds the distance or time set out in subsection (1) without the consent of the installation manager, both the installation manager and the master of the standby vessel shall log the incident and submit a written report to the Board within 48 hours stating the reason why the distance or time was exceeded.

(3) A standby vessel shall not enter the safety zone around a production installation without the consent of the installation manager.

(4) Under the direction of the installation manager, the standby vessel is to attend close to the production installation when any of the following situations occurs:

(a) weather, sea or ice conditions limit the safe deployment of a powered rescue boat from the production installation;

(b) a helicopter is landing or taking off from the production installation;

(c) diving operations are in progress;

(d) drill-stem or production tests are being conducted;

(e) kick-control operations are proceeding;

(f) abnormal pressure zones are being penetrated;

(g) abandon ship or person overboard drills are being conducted; or

(h) personnel are working overside.

(5) The installation manager and the master of the standby vessel shall enter a notation in the appropriate logbook when the standby vessel assumes or leaves standby duty and close standby.

(6) A standby vessel shall

(a) maintain a clear deck at all times; or

(b) meet the requirements of the Canadian Coast Guard TP 7920E, *Standards Respecting Standby Vessels*.

(7) The standby vessel shall have the capacity to accommodate the total number of persons on board, and shall be fit for the purposes of, the installation the vessel is serving.

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Support Craft Monitoring

57. An operator shall ensure that the position and status of all support craft are monitored by a central vessel monitoring service and helicopter flight following service.

Communications

- 58.** (1) The operator of a manned production installation shall ensure that the communications equipment on the installation is operated by personnel trained for that purpose.
- (2) The personnel referred to in subsection (1) shall, on a 24 hour basis,
- (a) maintain a listening watch on 156.8 MHz frequency; and
 - (b) monitor all marine and air communications with respect to movements of any support craft operating between the production installation and the shore.

Availability of Regulations

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

Suspension of Operations

- 60.** (1) An operator shall ensure that production operation is suspended forthwith where the continuation of that operation
- (a) would endanger the safety of persons on board an installation, the security of a well or the integrity or safe operation of the installation; or
 - (b) would cause a spill into the natural environment that exceeds the limits specified in the environmental protection plan or any limit specified in a requirement of the production operations authorization.
- (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 without unauthorized discharge into the natural environment.
- (3) Where a serious injury, fatal accident or serious damage to equipment occurs at a production site, the operator shall forthwith suspend every operation that contributed to the injury, fatality or damage and shall not resume the operation without an approval granted pursuant to subsection (4).
- (4) The Chief Conservation Officer or the Chief Safety Officer, or both, as applicable under the Act, shall approve the resumption of an operation that, pursuant to subsection (3), has been suspended if they determine that the operation can be safely resumed.
- (5) Where there is loss of control of a well at a production installation, the operator shall shut in all other wells at the production installation until the well that is out of control is secured.

Subsea Location

61. An operator must be able at all times to readily locate the subsea production system.

PART IX

SAFETY AND TRAINING OF PERSONNEL

General

- 62.** (1) No operator shall conduct a production operation for which the personnel require special skills until
- (a) the operator has submitted to the Chief Safety Officer a description of the training that the operator proposes to require of the persons employed for that operation;
 - (b) the training referred to in paragraph (a) has been approved pursuant to subsection (2); and
 - (c) the operator has ensured that the employees have successfully completed the approved training.
- (2) The Chief Safety Officer shall approve the training referred to in paragraph (1)(a) if the training is

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sufficient to enable the production operation to be conducted in a safe manner.

Qualifications

- 63.** (1) An operator shall ensure that the supervisory personnel employed at a production site have, before assuming their duties, sufficient experience and the necessary training to conduct their duties in a safe manner.
- (2) An operator shall, on request, provide the Chiefs with a summary of the qualifications and training of personnel employed at a production site.

Oil Spill Drills

- 64.** The operator of a production installation at which oil could be produced shall carry out periodic drills on the procedures to be used in response to an oil spill.

PART X

AUTHORIZED ENTRY, INSPECTION AND INVESTIGATIONS

Safety Zones

- 65.** (1) No person other than a conservation officer or safety officer or a person designated by the Chief Conservation Officer or Chief Safety Officer or authorized by an operator shall, except in an emergency, enter the safety zone.
- (2) An operator shall take such measures as are reasonable to ensure that any person in charge of a vessel or aircraft that operates in or approaches a safety zone is informed of the boundaries of the safety zone.

Conservation Officer and Safety Officer

- 66.** (1) Where a conservation officer or a safety officer has reasonable grounds to believe that the condition of any production facility is such that there is a risk of loss of life, serious bodily injury, loss of control of a well or pollution of the natural environment, the conservation officer or the safety officer may give written notice to the operator in charge of that facility to test, to the extent practicable, the function of that facility, and the operator shall do so forthwith.
- (2) Where, pursuant to subsection (1), an operator tests any production facility and determines that the facility does not operate in accordance with the manufacturer's specifications, the operator shall forthwith replace or repair the facility.
- (3) Where a production facility referred to in subsection (1) cannot be adequately tested, the Chief Conservation Officer or the Chief Safety Officer may, on the recommendation of a conservation officer or safety officer, order the operator to repair or replace the facility, and the operator shall do so forthwith.

Investigation of Accidents

- 67.** (1) The Chief Conservation Officer or the Chief Safety Officer shall investigate or cause to be investigated any incident, accident or other event at a production site that
- (a) causes significant damage to or failure of the production installation; or
 - (b) results or could result in a spill into the natural environment exceeding limits specified in the environmental protection plan or in the requirements of the production operations authorization for the pool or field or any portion thereof located within the production site.
- (2) The Chief Conservation Officer or the Chief Safety Officer may investigate or cause to be investigated any incident, accident or other event at a production site that results in the death of any person, a missing person, serious bodily injury, imminent threat to the safety of personnel or the public, a fire, explosion, loss of well control, spill of oil, gas or hazardous substances, significant damage to or missing support craft or any other serious incident, accident or event at the installation.

PART XI

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RECORDS AND REPORTING

System of Units

68. An operator shall use the international system of units (SI) to record data and to prepare reports that are submitted to the Chief Conservation Officer or the Chief Safety Officer.

Names and Designations

- 69.** (1) The Chief Conservation Officer shall designate a name for a pool or field.
(2) The Chief Conservation Officer may define the boundaries of a pool or field for the purpose of identifying it.
(3) An operator shall assign to a well when it is completed
(a) a distinct permanent designation that consists of a completion number and the name of the pool or field designated pursuant to subsection (1) on which the well is located; and
(b) a non-permanent designation that indicates the completion status as set out in subsection (4).
(4) The designation referred to in paragraph (3)(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".
(5) An operator shall
(a) submit to the Chief Conservation Officer every change the operator proposes to make to the designation of a well, or to the name of a pool or field; and
(b) in the case of a well, notify the Chief Conservation Officer of every change in the status of the well that may affect the designation referred to in paragraph (3)(b) and any consequential change in that designation.

Change of Operator

- 70.** (1) Where the operator of a production installation proposes that another operator operate the production installation, the operator shall provide a report to the Chief Conservation Officer that sets out the reason for the change.
(2) The new operator shall provide documentation to the Board that will enable the Board to determine if the new operator is able to meet the commitments and responsibilities of the previous operator under the Act and these Regulations.

Construction Progress

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

Daily Operating Record

- 72.** (1) An operator shall keep at a central control point and, on request, submit to the Chiefs a current daily operating record respecting
(a) safety and environmental protection;
(b) the identification of all persons at a production installation 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 the production installation for corrosion and erosion and any resulting maintenance;
(f) pressure, temperature and flow rate data for compressors, treating facilities and processing equipment;
(g) the calibration of meters and instruments;
(h) the inspection of surface and subsurface safety valves;

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- (i) the status of each well and the status of well operations; and
 - (j) every spill of oil, gas, chemicals or hazardous substances into the natural environment.
- (2) Except as otherwise authorized by the Chief Conservation Officer, an operator shall retain a record referred to in subsection (1) for at least five years and shall offer the original or a legible copy of the record to the Chief Conservation Officer before destroying it.

Daily Production Record

- 73.** (1) An operator shall keep a daily production record in respect of a pool and shall, at the request of the Chief Conservation Officer, provide a copy of the record to the Chief Conservation Officer.
- (2) An operator shall retain every record referred to in subsection (1) until production from the field on which the pool is located is abandoned.

Monthly Production Report

- 74.** (1) An operator shall follow established production accounting procedures.
- (2) An operator shall submit to the Chief Conservation Officer, in a form fixed by the Chief Conservation Officer, not later than the 15th day of each month or such other date as the Chief Conservation Officer authorizes, three copies of a report summarizing the production data collected pursuant to subsection 35(1) during the preceding month.

Submission of Data

- 75.** (1) An operator shall submit to the Chief Conservation Officer, in a form fixed by the Chief Conservation Officer, three copies of the results, data, analyses and schematics obtained
- (a) from any measurement, core or fluid sample required under Part II; and
 - (b) from any segregation test or well operation.
- (2) An operator shall submit the results, data, analyses and schematics referred to in subsection (1) within 60 days after the completion of the measurement, core or fluid sample, test or well operation.

Pilot Scheme

- 76.** (1) An operator shall, in accordance with the conditions of the development plan approval, submit interim evaluations of any pilot scheme that the operator has conducted at a pool or field to the Chief Conservation Officer.
- (2) Where an operator completes a pilot scheme, the operator shall submit a report to the Chief Conservation Officer that sets out
- (a) the results of the scheme and supporting data and analyses; and
 - (b) the conclusions of the operator as to the potential of the scheme for application to full-scale production.

Annual Production Report and Annual Environmental Report

- 77.** (1) An operator shall submit to the Chief Conservation Officer not later than March 1 of each year an annual production report and an annual environmental report relating to the preceding year for a pool or field.
- (2) The annual production report referred to in subsection (1) shall set out, where applicable
- (a) graphs of production from and injection into the pool or field;
 - (b) a review of production from and injection 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 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 alterations in respect of performance of each well and alterations to production equipment for the pool or field;
 - (h) a review of subsurface safety valve performance; and
 - (i) a listing of significant modifications to any production installation at the pool or field.
- (3) The annual environmental report referred to in subsection (1) shall set out a review of general

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environmental conditions during the year, including meteorological, oceanographic and ice conditions and a description of ice management activities and downtime caused by weather or ice.
(4) Where the performance of a well in a pool differs significantly from predictions in the annual production reports for the pool, the operator shall, at the request of the Chief Conservation Officer, submit to the Chief Conservation Officer performance evaluations of the well in the pool at intervals set by the Chief Conservation Officer.

Last updated: 2009-10-05



Important Notices

Last updated: 2009-10-05



Important Notices