



[Français](#)

## Occupational Health and Safety Act

### R.R.O. 1990, REGULATION 855

#### OIL AND GAS — OFFSHORE

**Consolidation Period:** From November 5, 2010 to the [e-Laws currency date](#).

Last amendment: O. Reg. 421/10.

*This is the English version of a bilingual regulation.*

#### [SKIP TABLE OF CONTENTS](#)

#### CONTENTS

	<a href="#">DEFINITIONS</a>	Sections
<a href="#">PART I</a>	GENERAL	1
<a href="#">PART II</a>	PREPARATION	2-11
<a href="#">PART III</a>	GENERAL REQUIREMENTS	12-20
<a href="#">PART IV</a>	RIGS	21-53
		54-100

#### DEFINITIONS

1. In this Regulation,

“adequate”, when used in relation to a procedure, plan, material, device, object or thing, means that it is,

- (a) sufficient for both its intended and its actual use, and
- (b) sufficient to protect a worker from occupational illness or occupational injury; (“adéquat”)

“adequately” has a meaning that corresponds to the meaning of “adequate”; (“adéquatement”)

“boom” means the projecting part of a backhoe, shovel, crane or similar lifting device from which a load is likely to be supported; (“flèche”)

“cathead” means a spool-shaped attachment on a winch around which rope for hoisting and pulling is wound; (“cabestan”)

“drawworks” means the hoisting mechanism on a rig which raises or lowers the drill stem and bit; (“treuil de forage”)

“flammable liquid” means a liquid having a flash point below 37.8° Celsius, and a vapour pressure below 275 kilopascals absolute at 37.8° Celsius; (“liquide inflammable”)

“kelly” means the heavy steel pipe with four or six sides that is connected to the top of the drill pipe; (“tige d’entraînement”)

“lifting device” means a device that is used to raise or lower any material or object and includes its rails and other supports; (“appareil de levage”)

“prime mover” means an initial source of motive power; (“élément moteur”)

“professional engineer” means a person who is licensed as a professional engineer under the *Professional Engineers Act*; (“ingénieur”)

“rig” means any rotary drilling ship, cable tool ship, barge, platform or other rig used for offshore oil or gas exploration, development, production, maintenance, workover, capping, plugging or abandonment operations; (“installation de forage”)

“transmission equipment” means any object or objects by which the motion of a prime mover is transmitted to a machine that is capable of utilizing such motion and includes a shaft, pulley, belt, chain, gear, clutch or other device. (“organe de transmission”) R.R.O. 1990, Reg. 855, s. 1; O. Reg. 566/06, s. 1; O. Reg. 421/10, s. 1.

## **PART I GENERAL**

2. In applying this Regulation, the composition, design, size and arrangement of any material, object, device or thing may vary from the composition, design, size or arrangement prescribed if the factors of strength, health and safety are equal to or greater than the factors of strength, health and safety in the composition, design, size or arrangement prescribed. R.R.O. 1990, Reg. 855, s. 2.

3. This Regulation applies to all work done offshore on or from a rig. R.R.O. 1990, Reg. 855, s. 3.

4. The minimum age of a worker is eighteen years of age. R.R.O. 1990, Reg. 855, s. 4.

5. Prior to the start of the drilling season, the owner of the licence of occupation under the *Mining Act* shall provide a notice in writing to the Director, setting out,

- (a) the contents of the operating manual required under section 14; and
- (b) details of an emergency plan to rescue workers in the event of an emergency. R.R.O. 1990, Reg. 855, s. 5.

6. An emergency plan shall be prepared in writing and shall include,

- (a) a suitable and rapid means of obtaining first aid help and transportation from the rig to a hospital for injured workers; and
- (b) the measures and procedures to be used to,
  - (i) control a major fire,
  - (ii) react to serious damage to the rig,
  - (iii) evacuate the rig, and
  - (iv) notify rescue personnel. R.R.O. 1990, Reg. 855, s. 6.

7. The written report required by section 51 of the Act shall include,

- (a) the name and address of the employer;

- (b) the nature and the circumstances of the occurrence and of the bodily injury sustained;
- (c) a description of the machinery or equipment involved;
- (d) the time and place of the occurrence;
- (e) the name and address of the person who was killed or critically injured;
- (f) the names and addresses of all witnesses to the occurrence; and
- (g) the name and address of the physician or surgeon, if any, who is attending or has attended the injury. R.R.O. 1990, Reg. 855, s. 7; O. Reg. 421/10, s. 2.

8. For the purposes of section 52 of the Act, notice of,

- (a) an accident, explosion or fire which disables a worker from performing his or her usual work; or
- (b) an occupational illness,

shall include,

- (c) the name, address and type of business of the employer;
- (d) the nature and the circumstances of the occurrence and of the bodily injury or illness sustained;
- (e) a description of the machinery or equipment involved;
- (f) the time and place of the occurrence;
- (g) the name and address of the person suffering the injury or illness;
- (h) the names and addresses of all witnesses to the occurrence;
- (i) the name and address of the physician or surgeon, if any, who is attending or has attended the injury or illness; and
- (j) the steps taken to prevent a recurrence or further illness. R.R.O. 1990, Reg. 855, s. 8; O. Reg. 421/10, s. 3.

9. A record of an accident, explosion or fire causing injury requiring medical attention but not disabling a worker from performing his or her usual work shall be kept in the permanent records of the employer and include particulars of,

- (a) the nature and circumstances of the occurrence and of the injury sustained;
- (b) the time and place of the occurrence; and
- (c) the name and address of the injured person. R.R.O. 1990, Reg. 855, s. 9; O. Reg. 421/10, s. 4.

10. A record kept as prescribed by section 9 for the inspection of an inspector shall be notice to the Director. R.R.O. 1990, Reg. 855, s. 10.

11. A record of the qualifications of all workers appointed as competent persons shall be kept in the permanent records of the employer for as long as the worker is employed with the employer. R.R.O. 1990, Reg. 855, s. 11.

## **PART II PREPARATION**

12. Muster lists shall be posted in two conspicuous locations on the rig and in each cabin.

R.R.O. 1990, Reg. 855, s. 12.

13. A muster list shall indicate,

- (a) emergency signals or alarms;
- (b) fire stations;
- (c) survival craft stations;
- (d) workers in charge of survival craft; and
- (e) procedures outlined in the emergency plan. R.R.O. 1990, Reg. 855, s. 13.

14. An operating manual prescribing the procedures to be followed shall be,

- (a) available for each drilling or related operation; and
- (b) readily accessible to a worker on the drilling site. R.R.O. 1990, Reg. 855, s. 14.

15. The employer shall ensure that a rig and its equipment is inspected for compliance with this Regulation,

- (a) in port, by an inspector prior to the drilling season; and
- (b) by a worker who is a competent person at least once every thirty working days while in operation. R.R.O. 1990, Reg. 855, s. 15.

16. The employer shall ensure that the derrick or mast is inspected by a competent person,

- (a) before being put into position, raised or lowered; and
- (b) at least once every year while in port. R.R.O. 1990, Reg. 855, s. 16.

17. The employer shall ensure that firefighting and life saving equipment is inspected by a competent person at least once every two weeks. R.R.O. 1990, Reg. 855, s. 17.

18. The employer shall ensure that a lifting device is examined by a competent person to determine its capability of handling the maximum load as rated,

- (a) before being used for the first time; and
- (b) thereafter as often as necessary but not less frequently than recommended by the manufacturer and, in any case, at least once a year. R.R.O. 1990, Reg. 855, s. 18.

19. Written reports of inspections required by this Regulation shall be made by a competent person and shall be kept,

- (a) on the rig for a period of one year from the date of inspection; and
- (b) at the employer's principal office in Ontario for a period of five years from the date of inspection. R.R.O. 1990, Reg. 855, s. 19.

20. The employer shall ensure that for each crew of workers on a working rig,

- (a) a fire drill is held at least once every two weeks;
- (b) an evacuation drill is held at least once every four weeks; and
- (c) a man-over-board drill is held at least once every four weeks. R.R.O. 1990, Reg. 855, s. 20.

### **PART III GENERAL REQUIREMENTS**

21. A worker required to wear or use any protective clothing, equipment or device shall be instructed and trained in its care and use before wearing or using the protective clothing, equipment or device. R.R.O. 1990, Reg. 855, s. 21.

22. Every worker who is exposed to the hazard of head injury shall wear head protection appropriate in the circumstances. R.R.O. 1990, Reg. 855, s. 22.

23. Every worker who is exposed to the hazard of eye injury shall wear eye protection appropriate in the circumstances. R.R.O. 1990, Reg. 855, s. 23.

24. Every worker who is exposed to the hazard of foot injury shall wear foot protection appropriate in the circumstances. R.R.O. 1990, Reg. 855, s. 24.

25. Long hair shall be suitably confined to prevent entanglement with any rotating shaft, spindle, gear, belt or other source of entanglement. R.R.O. 1990, Reg. 855, s. 25.

26. Every worker who is exposed to the hazard of skin injury by contact with,

- (a) a noxious gas, liquid, fume or dust;
- (b) a sharp or jagged object which may puncture, cut or abrade the worker's skin;
- (c) a hot object, hot liquid or molten metal; or
- (d) radiant heat,

shall be provided with protection by the employer in the form of,

- (e) wearing apparel sufficient to protect the worker from injury; or
- (f) a shield, screen or similar barrier,

appropriate in the circumstances. R.R.O. 1990, Reg. 855, s. 26.

27. Where a worker is exposed to the hazard of falling and the surface to which the worker might fall is more than three metres below the position where the worker is situated,

- (a) the employer shall provide and the worker shall wear a fall arrest system consisting of a serviceable safety belt or harness and lifeline that is adequately secured to a fixed support and so arranged that the worker cannot fall freely for a vertical distance of more than 1.5 metres; and
- (b) the fall arrest system described in clause (a) shall,
  - (i) have sufficient capacity to absorb twice the energy and twice the load that under the circumstances of its use may be transmitted to it, and
  - (ii) be equipped with a shock absorber or other devices to limit the maximum arresting force to 8.0 kilonewtons to the worker. R.R.O. 1990, Reg. 855, s. 27; O. Reg. 421/10, s. 5.

28. Every worker who is exposed to the hazard of falling into water shall wear a life jacket. R.R.O. 1990, Reg. 855, s. 28.

29. Material, articles or things,

- (a) required to be lifted, carried or moved shall be lifted, carried or moved in such a way and with such precautions and safeguards, including protective clothing, guards or other precautions as will ensure that the lifting, carrying or moving of the material, articles or things does not endanger the safety of any worker;
- (b) shall be transported, placed or stored so that the material, articles or things,

- (i) will not tip, collapse or fall, and
- (ii) can be removed or withdrawn without endangering the safety of any worker; and
- (c) to be removed from a storage area, pile or rack shall be removed in a manner that will not endanger the safety of any worker. R.R.O. 1990, Reg. 855, s. 29.

30. Machinery, equipment or material that may tip or fall and endanger any worker shall be secured against tipping or falling. R.R.O. 1990, Reg. 855, s. 30.

31. Cylindrical objects stored on their side shall be piled symmetrically with each unit in the bottom row chocked or wedged to prevent motion. R.R.O. 1990, Reg. 855, s. 31.

32. Barrels, drums or kegs that are piled on their ends shall have two parallel planks placed on top of each row before another row is added. R.R.O. 1990, Reg. 855, s. 32.

33. A storage cylinder for compressed gas shall,

- (a) be secured in position during use;
- (b) have the valve protection cap in position when the cylinder is not in use;
- (c) when containing acetylene, be in an upright position; and
- (d) be protected from physical damage. R.R.O. 1990, Reg. 855, s. 33.

34. A silo, bin, hopper, structure, container or thing used for storing or containing bulk material may be entered only where,

- (a) the supply of material thereto is stopped and precautions are taken that will prevent any further supply;
- (b) mechanical equipment that may endanger a worker is,
  - (i) disconnected from its power source, and
  - (ii) locked out;
- (c) the space is ventilated to provide a safe atmosphere;
- (d) the space is tested for lack of oxygen and presence of combustible gases;
- (e) the worker entering is wearing a safety harness or other similar equipment attached to a rope or lifeline; and
- (f) at least one other worker equipped with a suitable alarm and capable of rendering any necessary assistance is keeping watch nearby. R.R.O. 1990, Reg. 855, s. 34.

35. Where the operator of a crane or similar material handling equipment does not have a full view of the intended path of travel of the crane or similar material handling equipment or its load, the crane or similar material handling equipment shall only be operated as directed by a signaler who is a competent person and who is stationed,

- (a) in full view of the operator;
- (b) with a full view of the intended path of travel of the crane or similar material handling equipment and its load; and
- (c) clear of the intended path of travel of the crane or similar material handling equipment and its load. R.R.O. 1990, Reg. 855, s. 35.

36. Except for the purpose of a test of the material handling equipment, no material handling equipment shall be loaded in excess of its maximum rated load. R.R.O. 1990, Reg. 855,



s. 36.

37. A worker who may be exposed to a biological, chemical or physical agent that may endanger the worker's safety or health shall be trained,

- (a) in the precautions and procedures to be followed in the handling, use and storage of the agent;
- (b) in the proper use and care of required personal protective equipment; and
- (c) in the proper use of emergency measures and procedures. R.R.O. 1990, Reg. 855, s. 37.

38. No food, drink or tobacco shall be taken into, left or consumed in any room, area or place where any substance that is poisonous by ingestion is exposed. R.R.O. 1990, Reg. 855, s. 38.

39. Containers used for handling or storage of corrosive, flammable or hazardous materials shall be,

- (a) appropriate for their intended use;
- (b) constructed to prevent spillage or leakage;
- (c) labelled to identify the contents; and
- (d) disposed of in a manner that will not endanger a worker's health or safety and complies with the requirements of the Ministry of the Environment. R.R.O. 1990, Reg. 855, s. 39.

40. A rig shall have an easily accessible eyewash station and deluge shower adjacent to the mud mixing facilities. R.R.O. 1990, Reg. 855, s. 40.

41. (1) In this section,

"dBA" means a measure of sound level in decibels using a reference sound pressure of 20 micropascals when measured on the A-weighting network of a sound level meter; ("dBA")

"decibel" means a unit of measurement of sound pressure level that is equal to 20 times the logarithm to the base 10 of the ratio of the pressure of a sound, divided by the reference pressure of 20 micropascals; ("décibel")

"equivalent sound exposure level" is the steady sound level in dBA which, if present in a workplace for eight hours in a day, would contain the same total energy as that generated by the actual and varying sound levels to which a worker is exposed in his or her total work day, determined in accordance with the formula set out in subsection (2). ("niveau d'exposition sonore équivalent") O. Reg. 566/06, s. 2.

(2) The formula for determining the equivalent sound exposure level is as follows:

$$L_{ex,8} = 10 \text{ Log}_{10} \left( \frac{\left[ \sum_{i=1}^n (t_i \times 10^{0.1 \text{ SPL}_i}) \right]}{8} \right)$$

**Text alternative: Image of the mathematical equation for determining the equivalent sound exposure level over eight hours that contains the same total energy as that generated by the actual and varying sound levels to which a worker is exposed in his or**

**her total work day. This text alternative is provided for convenience only and does not form part of the official law.**

where,

$L_{ex,8}$  is the equivalent sound exposure level in 8 hours,

$\Sigma$  is the sum of the values in the enclosed expression for all activities from  $i = 1$  to  $i = n$ ,

$i$  is a discrete activity of a worker exposed to a sound level,

$t_i$  is the duration in hours of  $i$ ,

$SPL_i$  is the sound level of  $i$  in dBA,

$n$  is the total number of discrete activities in the worker's total work day.

O. Reg. 566/06, s. 2; O. Reg. 421/10, s. 6.

(3) Every employer shall take all measures reasonably necessary in the circumstances to protect workers from exposure to hazardous sound levels. O. Reg. 566/06, s. 2.

(4) The protective measures shall include the provision and use of engineering controls, work practices and, subject to subsection (7), personal protective equipment. O. Reg. 566/06, s. 2.

(5) Any measurement of sound levels in the workplace that is done in order to determine what protective measures are appropriate shall be done without regard to any use of personal protective equipment. O. Reg. 566/06, s. 2.

(6) Without limiting the generality of subsections (3) and (4), every employer shall ensure that no worker is exposed to a sound level greater than an equivalent sound exposure level of 85 dBA,  $L_{ex,8}$ . O. Reg. 566/06, s. 2.

(7) Except in the circumstances set out in subsections (8) and (9), the employer shall protect workers from exposure to a sound level greater than the limit described in subsection (6) without requiring them to use and wear personal protective equipment. O. Reg. 566/06, s. 2.

(8) If this subsection applies, workers shall wear and use personal protective equipment appropriate in the circumstances to protect them from exposure to a sound level greater than the limit described in subsection (6). O. Reg. 566/06, s. 2.

(9) Subsection (8) applies if engineering controls are required by subsections (3) and (4) and,

(a) are not in existence or are not obtainable;

(b) are not reasonable or not practical to adopt, install or provide because of the duration or frequency of the exposures or because of the nature of the process, operation or work;

(c) are rendered ineffective because of a temporary breakdown of such controls; or

(d) are ineffective to prevent, control or limit exposure because of an emergency. O. Reg. 566/06, s. 2.

(10) A clearly visible warning sign shall be posted at every approach to an area in the workplace where the sound level, measured as described in subsection (5), regularly exceeds 85 dBA. O. Reg. 566/06, s. 2.



42. Where a machine or prime mover or transmission equipment other than a cathead, kelly or rotary table, has an exposed moving part that may endanger the safety of any worker, the machine or prime mover or transmission equipment shall be equipped with and guarded by a guard or other device that prevents access to the moving part. R.R.O. 1990, Reg. 855, s. 42.

43. An in-running nip hazard or any part of a machine, device or thing that may endanger the safety of any worker shall be equipped with and guarded by a guard or other device that prevents access to the pinch point. R.R.O. 1990, Reg. 855, s. 43.

44. An emergency stop control on a power-driven machine shall,

- (a) be conspicuously identified; and
- (b) be located within easy reach of the operator. R.R.O. 1990, Reg. 855, s. 44.

45. An operating control that acts as a guard for a machine not otherwise guarded shall,

- (a) be in a location where the safety of the operator is not endangered by moving machinery;
- (b) be arranged so that it cannot be operated accidentally; and
- (c) not be made ineffective by a tie-down device or other means. R.R.O. 1990, Reg. 855, s. 45.

46. A grinding wheel shall be,

- (a) marked with the maximum speed at which it may be used;
- (b) checked for defects before mounting;
- (c) mounted in accordance with the manufacturer's specifications;
- (d) operated at a speed which does not exceed the manufacturer's recommendations;
- (e) provided with protective hoods that enclose the wheel as closely as the work will permit;
- (f) operated only by workers protected by eye protection; and
- (g) stored where it will not be subjected to,
  - (i) extreme heat or cold, or
  - (ii) damage from impact. R.R.O. 1990, Reg. 855, s. 46.

47. A work rest for a grinding wheel shall,

- (a) have a maximum clearance of three millimetres from the grinding wheel;
- (b) be in a position above the centre line of the grinding wheel; and
- (c) not be adjusted while the grinding wheel is in motion. R.R.O. 1990, Reg. 855, s. 47.

48. (1) A lifting device including a crane, pedestal or other mount shall,

- (a) be capable of supporting the loads likely to be applied to it;
- (b) have the maximum load rating clearly marked near the operating station;
- (c) when the hoisting equipment is a crane, have,
  - (i) a load capacity chart that specifies boom angle and maximum working loads for each block, posted inside the control cab where load rating is more than five tons, and

- (ii) boom and block travel-limiting devices;
- (d) have hooks equipped with safety catches;
- (e) be equipped with suitable ropes, chains, slings and other fittings so as to adequately protect all workers;
- (f) have all operating controls clearly identified;
- (g) be plainly marked with sufficient information so as to enable the operator of the device to determine the maximum rated load that the device is capable of lifting under any operating condition;
- (h) have a cab, screen, canopy guard or other adequate protection for the operator where he or she may be exposed to the hazard of falling material;
- (i) when it is a pneumatic or hydraulic hoist, have controls that automatically return to their neutral position when released;
- (j) be operated only by,
  - (i) a competent person, or
  - (ii) a worker being instructed who is accompanied by a competent person; and
- (k) be operated in such a way that,
  - (i) no part of the load passes over any worker,
  - (ii) where a worker may be endangered by the rotation or uncontrolled motion of a load, one or more guide ropes is used to prevent rotation or other uncontrolled motion, and
  - (iii) when its load is in a raised position, the controls are attended by an operator.

R.R.O. 1990, Reg. 855, s. 48 (1); O. Reg. 421/10, s. 7.

[2](#) Subclause (1) (k) (iii) does not apply to a hydraulic hoist that supports the load from below and is fixed in one location. R.R.O. 1990, Reg. 855, s. 48 (2).

[49](#) Hoisting controls operated from other than a cab or cage shall,

- (a) be located so that they can be operated at a safe distance from a load being lifted; and
- (b) automatically return to their neutral position when released. R.R.O. 1990, Reg. 855, s. 49.

[50](#) Where a lifting device is equipped with one or more limit switches,

- (a) each limit switch shall automatically cut off the power and apply the brake when the limit is reached; and
- (b) no limit switch shall be used as an operating control unless,
  - (i) the limit switch is designed for such use, and
  - (ii) the lifting device has a second limit switch in addition to the control limit switch. O. Reg. 421/10, s. 8.

[51](#) A crane, lift truck or similar equipment shall be used to support, raise or lower a worker only when,

- (a) the worker is on a platform,
  - (i) equipped with adequate safety devices that will automatically prevent the

- platform and load from falling if the platform's normal support fails,
- (ii) suspended from a boom, and the person is attached to a separate lifeline suspended from the boom or a fixed support capable of supporting at least four times the weight of the worker, or
  - (iii) attached to a mast or boom that,
    - (A) is hydraulically or pneumatically operated, and
    - (B) is equipped with a safety device that will prevent free fall of the platform in the event of a pressure line failure;
  - (b) where the equipment is not designed for the specific purpose of hoisting personnel, the load applied to the crane, lift truck or similar equipment is less than one half the maximum rated load;
  - (c) the platform has a sign indicating the load that may be applied to the crane, lift truck or similar equipment under clause (b);
  - (d) where controls are provided at more than one location,
    - (i) each control station is provided with means whereby the operator can shut off power to the equipment, and
    - (ii) interlocks have been provided so that only one station can be operative at any time; and
  - (e) except when the controls are operated from the platform, the controls are attended and operated by another worker. R.R.O. 1990, Reg. 855, s. 51; O. Reg. 421/10, s. 9.

52. (1) There shall be a guardrail,

- (a) at the perimeter of any area where there is a drop of more than one metre;
- (b) on a mud tank; and
- (c) where there is a hazard of falling into water or other hazardous material. R.R.O. 1990, Reg. 855, s. 52 (1).

(2) A guardrail shall consist of,

- (a) a top rail not less than 107 centimetres above the surface, floor or platform;
- (b) a mid rail located approximately mid way between the top rail and walking surface; and
- (c) posts or uprights, supporting the top rail and spaced not more than three metres apart from centre to centre. R.R.O. 1990, Reg. 855, s. 52 (2).

(3) A guardrail shall,

- (a) be capable of withstanding any load likely to be applied to it; and
- (b) where tools or other objects may fall on any worker, have a toe-board extending from the surface, floor or platform to a height of not less than 125 millimetres. R.R.O. 1990, Reg. 855, s. 52 (3); O. Reg. 421/10, s. 10.

53. A cover on an opening in a floor, roof or other surface shall be,

- (a) secured in place; and
- (b) of sufficient strength to support the greater of,
  - (i) any load likely to be applied to it, or

(ii) 2.4 kilonewtons per square metre. R.R.O. 1990, Reg. 855, s. 53.

## **PART IV RIGS**

54. Where natural lighting is inadequate to ensure the safety of any worker, artificial lighting shall be provided and shadows and glare shall be reduced to a minimum. R.R.O. 1990, Reg. 855, s. 54.

55. A rig shall have emergency storage batteries or other system capable of supplying power for twenty-four continuous hours, sufficient to operate,

- (a) the marine radio required under the Ship Station (Radio) Regulations, 1999 under the *Canada Shipping Act, 2001* for transmitting or receiving on the distress frequency;
- (b) the navigation and obstruction lights; and
- (c) the lighting required in communications and navigational control areas of the drill unit. R.R.O. 1990, Reg. 855, s. 55; O. Reg. 421/10, s. 11.

56. A rig shall have emergency lighting that,

- (a) turns on automatically when the regular lighting fails;
- (b) is independent of the regular lighting source;
- (c) provides adequate lighting for evacuation of the area; and
- (d) is tested at least once every three months, but not less frequently than recommended by the manufacturer to ensure the system will function in an emergency,

in every workplace that is,

- (e) a communication centre;
- (f) a drill floor;
- (g) a well control area;
- (h) a stairway;
- (i) an exit;
- (j) a machinery generator area;
- (k) an area where lighting is required for well control;
- (l) a passageway;
- (m) a navigation control area; or
- (n) a survival craft embarkation station. R.R.O. 1990, Reg. 855, s. 56.

57. The rig shall be kept clean, tidy and free from accumulation of waste materials, oil and mud in all areas used by a worker. R.R.O. 1990, Reg. 855, s. 57.

58. Walkways and the area around the base of a derrick ladder shall be clear of obstruction. R.R.O. 1990, Reg. 855, s. 58.

59. Each enclosed workplace at or near which a worker regularly works on a rig shall have at least two exits. R.R.O. 1990, Reg. 855, s. 59.

60. An exit shall,

- (a) be located as distant from the next required exit as practicable;
- (b) be suitably identified with a sign; and
- (c) when the opening is covered by a door, have the door hinged to open in the direction of exit travel. R.R.O. 1990, Reg. 855, s. 60.

61. A diesel or gas powered engine shall,

- (a) be located in an area where combustible gases are not likely to be present;
- (b) be located as far as practicable from the centre line of the well bore;
- (c) be equipped with an emergency stop control;
- (d) be equipped with a fire extinguishing system when in an enclosed area; and
- (e) be equipped with one fire extinguisher having a U. L. C. rating of twenty BC or higher in an open area. R.R.O. 1990, Reg. 855, s. 61.

62. No person shall smoke during emergencies or in any area except those,

- (a) used for recreation;
- (b) used for accommodation purposes; or
- (c) designated by the employer as a smoking area. R.R.O. 1990, Reg. 855, s. 62.

63. Where welding or flame-cutting is planned, the worker shall, prior to starting work,

- (a) inspect the working area for fire hazards;
- (b) test for the presence of combustible gases;
- (c) notify other workers that may be affected by this work; and
- (d) ensure that fire fighting equipment is readily available. R.R.O. 1990, Reg. 855, s. 63.

64. (1) No person under the influence of, or carrying, an intoxicating alcoholic beverage shall enter, or be on, or knowingly be permitted to enter, or be on, a rig.

(2) Subject to subsection (3), no person under the influence of, or carrying, a drug or narcotic substance shall enter, or be on, or knowingly be permitted to enter, or be on, a rig.

(3) A person required to use a drug for a medical purpose and able to perform work may enter and be on a rig upon establishing medical proof thereof. R.R.O. 1990, Reg. 855, s. 64.

65. A rig shall have,

- (a) emergency equipment and life-saving devices sufficient in number to provide for the escape of all workers;
- (b) a light-weight manoeuvrable rescue boat;
- (c) a suitable means of launching all survival or life-saving craft;
- (d) at least four life buoys, of which at least two shall have self-igniting lights;
- (e) life-jackets sufficient in number to provide one for each worker, and in addition, a sufficient number of life-jackets at each survival craft embarkation station to provide one each for 25 per cent of the workers for whom accommodation is available on the survival craft;
- (f) personal floatation devices suitable for performing work which are sufficient in number to provide one each for every worker on shift at any one time;

- (g) a line throwing apparatus and twelve distress signals;
- (h) at least one buoyant personnel transfer basket, except where the drilling unit is not equipped with a crane or where there are fewer than three workers;
- (i) first aid appliances and services as prescribed by Regulation 1101 of the Revised Regulations of Ontario, 1990 (First Aid Requirements) under the *Workplace Safety and Insurance Act, 1997*; and
- (j) at least two workers per shift who possess a standard first aid certificate from St. John Ambulance. R.R.O. 1990, Reg. 855, s. 65; O. Reg. 566/06, s. 3; O. Reg. 421/10, s. 12.

**66.** Life rafts shall be,

- (a) sufficient in number so that their combined capacity is capable of accommodating at least two workers more than the maximum number of workers present at any time;
- (b) so located that one half of the life rafts are on one side of the rig and the balance on another side; and
- (c) equipped with first aid supplies. R.R.O. 1990, Reg. 855, s. 66.

**67.** A life-buoy shall be,

- (a) equipped with a line approved by Canadian Coast Guard whose length is at least one and one-half times the distance from the life-buoy station to the water line at shallow drafts;
- (b) located so as to be readily available to any worker; and
- (c) stored in a location which is clearly identified by a sign or other means. R.R.O. 1990, Reg. 855, s. 67; O. Reg. 421/10, s. 13.

**68.** A rig shall be equipped with,

- (a) self-contained breathing apparatus sufficient in number for the working crew, located in areas readily available to the working area;
- (b) at least two portable hydrogen sulphide gas detectors;
- (c) at least two portable combustible gas detectors; and
- (d) at least two portable oxygen gas detectors. R.R.O. 1990, Reg. 855, s. 68.

**69.** A rig shall be equipped with survival suits,

- (a) approved by Canadian Coast Guard;
- (b) sufficient in number for at least two workers more than the maximum number of workers present at any time; and
- (c) located in areas convenient to working, accommodation and survival craft embarkation areas. R.R.O. 1990, Reg. 855, s. 69; O. Reg. 421/10, s. 14.

**70.** A rig shall be equipped with fire protection and detection equipment. R.R.O. 1990, Reg. 855, s. 70.

**71.** A rig shall have a general alarm system consisting of a hailer or public address system that is audible in the workplace. R.R.O. 1990, Reg. 855, s. 71.

**72.** A general alarm shall be sounded to alert workers when there is a danger to,



- (a) the safety of the workers;
- (b) the security of the drilling unit or the well; or
- (c) the health of the workers due to the presence of toxic or combustible gases. R.R.O. 1990, Reg. 855, s. 72.

73. A rig shall have a radio communication system that,

- (a) includes a very high frequency marine radio telephone;
- (b) includes a radio capable of communicating with any support craft used in connection with the drilling operations;
- (c) has an emergency back-up system; and
- (d) has a competent person who is available to,
  - (i) maintain a listening watch on the 156.8 MHz frequency, and
  - (ii) monitor all movements of any support craft operating between the rig and the shore. R.R.O. 1990, Reg. 855, s. 73; O. Reg. 421/10, s. 15.

74. A helicopter used in conjunction with an offshore rig shall carry a sufficient number of immersion suits to provide one for each crew member and passenger when surface water temperature is below 18° Celsius. R.R.O. 1990, Reg. 855, s. 74.

75. Where a helicopter deck on a rig is used it shall be,

- (a) so located as to have an unobstructed approach path on at least a 210° sector;
- (b) capable of supporting any type of helicopter that is likely to land on it;
- (c) equipped with,
  - (i) tie-down devices for at least one helicopter,
  - (ii) internationally recognized markings,
  - (iii) deck lights suitable for night flying where night flights are made,
  - (iv) a non-skid deck surface, and
  - (v) safety nets around the perimeter of the deck;
- (d) equal to or larger than the rotor diameter of any single-main rotor helicopter that is likely to land on the deck; and
- (e) kept clear of obstructions. R.R.O. 1990, Reg. 855, s. 75.

76. Rigs shall not be used for helicopter refuelling. R.R.O. 1990, Reg. 855, s. 76.

77. A personnel transfer basket shall,

- (a) not be used to transfer cargo except in an emergency;
- (b) only be used under conditions of good visibility and weather;
- (c) be raised or lowered over water to the greatest extent practicable; and
- (d) be operated by a competent person. R.R.O. 1990, Reg. 855, s. 77.

78. Living quarters for the drilling crews shall be,

- (a) equipped with at least four self-contained breathing apparatus;
- (b) clean and sanitary;

- (c) capable of being heated to at least 20° Celsius; and
- (d) equipped with a smoke detector and alarm in each room. R.R.O. 1990, Reg. 855, s. 78.

79. A rig shall have,

- (a) its hull, superstructure, bulkheads and decks constructed of material at least as resistant to fire as steel;
- (b) a means of embarking all workers so as not to endanger them;
- (c) a system of ventilation adequate to ensure that the gas, vapour, dust or fume does not reach a hazardous concentration;
- (d) ventilators, ports and other openings in any room so arranged that they can be closed;
- (e) its derrick or mast constructed to support any load likely to be applied to it without exceeding the maximum rated load; and
- (f) its drilling depth limited to comply with clause (e). R.R.O. 1990, Reg. 855, s. 79.

80. Drilling equipment shall be constructed to withstand all loads or pressure applied to it without exceeding the maximum rated load. R.R.O. 1990, Reg. 855, s. 80.

81. A cathead shall,

- (a) be operated by a competent person;
- (b) when a rope is manually operated on it, be,
  - (i) equipped with a blunt smooth-edged rope divider that has a clearance from the friction surface of the cathead of seven millimetres or less, and
  - (ii) operated only when the operating area is clear and the portion of the rope not in use is coiled or spooled;
- (c) be located so that there is at least 500 millimetres of working area between the outer flanges and a substructure, guardrail or wall;
- (d) have its controls attended while in use;
- (e) when a rope or line is in use, have all other ropes and lines placed so that they cannot come in contact with,
  - (i) the cathead, or
  - (ii) the rope or line in use on the cathead;
- (f) when automatic, have a separate control except where,
  - (i) dual purpose controls are used, and
  - (ii) a locking device prevents an automatic cathead from being accidentally engaged while the other is in operation;
- (g) have a key seat and projecting key covered with a smooth thimble or plate;
- (h) when unattended, be kept free of contact with any rope or line; and
- (i) have only ropes or lines free from splices come in contact with the friction surface. R.R.O. 1990, Reg. 855, s. 81; O. Reg. 421/10, s. 16.

82. A travelling block shall,

- (a) be equipped with securely attached sheave guards;
- (b) be free of projecting bolts, nuts, pins or parts; and
- (c) have any hook to which equipment is attached equipped with,
  - (i) a safety latch, or
  - (ii) a wire rope safety line. R.R.O. 1990, Reg. 855, s. 82.

83. A counterweight above a derrick floor, when not fully encased or running in permanent guides, shall be held to the frame of the derrick with a wire rope safety line that,

- (a) is not less than sixteen millimetres in diameter; and
- (b) will prevent the counterweight from coming within 2.4 metres of the floor. R.R.O. 1990, Reg. 855, s. 83.

84. A make-up or breakout tool shall have a safety device that prevents its uncontrolled movement. R.R.O. 1990, Reg. 855, s. 84.

85. A rotary drilling table shall not be used for final making up or initial breaking out of a pipe connection. R.R.O. 1990, Reg. 855, s. 85.

86. Drilling shall occur only if,

- (a) all workers and loose materials are clear of the drill;
- (b) visual obstructions are removed; and
- (c) other measures are taken to protect workers from hazards created by the cathead and tong lines. R.R.O. 1990, Reg. 855, s. 86.

87. A hoisting rope, chain, sling or fitting shall,

- (a) not be loaded beyond the safe-working load;
- (b) not be used to raise or lower a worker, other than an injured worker in case of emergency; and
- (c) have the safe-working load established by,
  - (i) a professional engineer, or
  - (ii) the manufacturer. R.R.O. 1990, Reg. 855, s. 87.

88. A hoisting rope shall be,

- (a) securely fastened to the winding drum with at least five full wraps remaining on the drum at any time;
- (b) removed from a drum only when the travelling block is,
  - (i) lying on the derrick floor, or
  - (ii) supported by means of a separate wire rope; and
- (c) equipped with a reliable weight indicator that, if hung above the floor, is secured by means of a safety line or chain. R.R.O. 1990, Reg. 855, s. 88.

89. Stairways shall be installed,

- (a) beside the ramp to a derrick floor and extending from the deck to the derrick floor; and

- (b) at the outer end of a walkway which is sixty-one centimetres or more above the deck and extending from the deck to the walkway. R.R.O. 1990, Reg. 855, s. 89.

90. Ladder platforms shall be,

- (a) in place adjacent to a derrick ladder, other than where the ladder has a climbing device that protects the worker from falling; and
- (b) located,
  - (i) at the crown of all drill rigs, and
  - (ii) approximately equidistant but nine metres or less apart. R.R.O. 1990, Reg. 855, s. 90.

91. Where a worker is stationed on an elevated platform on the derrick or mast, an auxiliary means of escape shall,

- (a) be in place at the working platform; and
- (b) consist of a specially rigged and securely anchored escape line or system. R.R.O. 1990, Reg. 855, s. 91.

92. A pipe, kelly hose, cable or rope shall not be used to slide down, other than the escape line in case of emergency. R.R.O. 1990, Reg. 855, s. 92.

93. A pipe rack shall,

- (a) be capable of supporting the loads to which it is to be subjected;
- (b) have a means of preventing pipes and other round material from falling out of the rack; and
- (c) be loaded or unloaded in such a way that no worker is,
  - (i) on top of the load, or
  - (ii) between the load and the pipe rack. R.R.O. 1990, Reg. 855, s. 93.

94. Drawworks shall,

- (a) have a reliable locking mechanism to hold down the brakes in the engaged position;
- (b) be tested for adequate brake function at the beginning of each shift;
- (c) except during drilling, be attended at all times while the hoisting drum is in motion;
- (d) except if equipped with an automatic feed control, when unattended have the brakes secured in the engaged position; and
- (e) be put in motion only when all workers are clear of machinery and lines. R.R.O. 1990, Reg. 855, s. 94.

95. (1) The quantities of explosives and detonators stored on a rig shall not exceed 50 kilograms in total. O. Reg. 421/10, s. 17.

(2) Explosives shall be stored separately from detonators. O. Reg. 421/10, s. 17.

(3) Explosives and detonators shall be stored,

- (a) as far as practicable from,
  - (i) work areas,
  - (ii) living quarters,

- (iii) sources of ignition, and
- (iv) sources of physical damage;
- (b) in an area protected from lightning and other sources of electricity; and
- (c) in a magazine that,
  - (i) is conspicuously marked by “DANGER — EXPLOSIVES” signs,
  - (ii) is securely constructed and locked except when required to be opened for the issue or receipt of explosives,
  - (iii) provides partitions to separate two or more explosives, and
  - (iv) is constructed or lined or covered so as to prevent the exposure of the explosive to any grit, iron, steel or similar substance. O. Reg. 421/10, s. 17.

96. A competent person shall be placed in charge of the explosives magazine to,

- (a) issue and receive explosives;
- (b) inspect the condition and contents of the magazine once a week; and
- (c) issue a report in writing to a supervisor as to the condition and contents of the magazine as identified during the inspection required in clause (b). R.R.O. 1990, Reg. 855, s. 96.

97. Electrical equipment shall,

- (a) comply with the *Institute of Electrical and Electronics Engineers Recommended Practice for Electrical Installations on Shipboard Standard 45-1983*;
- (b) be explosion proof,
  - (i) within at least four metres horizontally from the centre line of the well bore,
  - (ii) within at least three metres vertically above the drill floor,
  - (iii) within at least three metres vertically below the drill floor,
  - (iv) within at least three metres vertically and horizontally from a mud ditch, shale shaker, degasser and mud tank, and
  - (v) in any enclosed high fire hazard area;
- (c) be suitable for its intended use; and
- (d) be equipped with two manual shut off switches located distant from each other, which will disconnect the circuit from the power plant to the drilling equipment. R.R.O. 1990, Reg. 855, s. 97; O. Reg. 421/10, s. 18.

98. Well stimulation and similar operations shall,

- (a) be equipped with a check valve as close as practicable to the well head riser, except where cementing or selective acidizing is being done;
- (b) where liquid carbon dioxide is being used, be controlled from a position on the far side of the pumping unit when viewed from the well head riser;
- (c) not be carried out until workers are removed a distance of three metres from the well head riser;
- (d) be equipped with fire protection positioned to control the increased hazard of fire

where flammable fluids are being pumped by two or more pumping units, including blenders;

- (e) be equipped with bleed-off valves to release pressure before pipe connections are broken; and
- (f) have controls readily operated from the rig floor when oil savers are used. R.R.O. 1990, Reg. 855, s. 98.

[99.](#) A system used to maintain drilling fluid shall,

- (a) be equipped with a pressure relief device adequate to vent excess pressure in a controlled manner;
- (b) vent excess pressure to an area which will not endanger workers;
- (c) be designed by a professional engineer; and
- (d) incorporate a testing and control procedure for hydrogen sulphide where oil, water or gas has been encountered. R.R.O. 1990, Reg. 855, s. 99.

[100.](#) A blow-out prevention system shall meet the requirements of Ontario Regulation 245/97 (Exploration, Drilling and Production) made under the *Oil, Gas and Salt Resources Act*. O. Reg. 421/10, s. 19.

[Français](#)

[Back to top](#)