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Petroleum and Natural Gas Act

GEOPHYSICAL EXPLORATION REGULATION

[includes amendments up to B.C. Reg. 602/2004, December 31, 2004]

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Interpretation

1 In this regulation, unless the context otherwise requires:

"Act" means the Petroleum and Natural Gas Act;

"authorized commission employee", in a provision of this regulation, means an employee of the commission who is designated in writing by the commission as an authorized commission employee for the purposes of that provision, and includes the commissioner and deputy commissioner;

"cutline" means a cutline made by hand or machine in the course of geophysical exploration;

"highway" includes every highway within the meaning of the Transportation Act, and every road, street, lane or right of way designed or intended for or used by the general public for the passage of vehicles, and every private place or passageway to which the public, for the purpose of the parking or servicing of vehicles, has access or is invited;

"monument" means any survey post, together with any auxiliary reference mark such as a wooden post, azimuth bar, bearing tree, cairn, mound, pit, trench or tower, which has been established to

mark the boundary of a parcel of land, right of way, traverse station, triangulation station or boundary of British Columbia;

"operator" means the person named as initiating and responsible for a project in an application under section 3;

"project" means a program of geophysical exploration applied for under section 3;

"project number" means the number assigned to each project by the commission for identification purposes;

"shot point" means the location of the energy source used in seismic operations.

[am. B.C. Reg. 602/2004, s. 1.]

Application

2 This regulation applies to all geophysical exploration for petroleum and natural gas in British Columbia.

Application for project approval

3 (1) An application for approval to undertake a project must be made in the form required by the commission.

(2) If an operator proposes to alter the geophysical exploration from that described in the original application, the operator must submit a revised application to the commission.

(3) An authorized commission employee may grant to an operator a written exemption from subsection (2), subject to any conditions specified in the exemption, if the proposed alteration

(a) does not substantially change the geophysical exploration from that described in the original application, or

(b) results in reduced disturbance to the environment than would have been caused by the project described in the original application.

[en. B.C. Reg. 257/2003, Sch. A, s. 1.]

Reports

4 (1) Before commencing a project, an operator must, as directed by an authorized commission employee, supply information regarding access to the area, terrain conditions and any anticipated environmental impact.

(2) The operator must advise an authorized commission employee of the location of the headquarters of the crew conducting the project and must advise promptly of any change in the location of their headquarters.

(3) The operator must submit a report to an authorized commission employee at the time of commencement of the project and termination of the project and at weekly intervals while the project is in progress, setting out the length of line recorded, the location of any shot holes that released gas or water, the location of any charges that failed to detonate and any other information requested by an authorized commission employee.

(3.1) An authorized commission employee may grant to an operator a written exemption from all or part of subsection (3), subject to any conditions specified in the exemption, if the authorized commission employee is satisfied the project

(a) will be completed in less than 3 weeks, or

(b) does not involve the drilling of shot holes and the use of explosives.

(4) The operator must file a final plan with the commission within 60 days after the completion of a project except under an exemption in writing granted by an authorized commission employee to the operator, and subject to any conditions specified in the exemption.

(5) The final plan must

(a) utilize a 1:50 000 scale seismic trail map as the base map,

(b) be clearly identified by the National Topographic Series or Township and Range,

(c) show the location of roads, trails and cutlines that were used to gain access,

(d) show existing cutlines that were used to acquire data,

(e) show the location of new cutlines that were cut to acquire data,

(f) show the location of detours constructed for exploration equipment and indicate their length and width in metres,

(g) show the location and size of campsites and landing strips constructed or used,

(h) show the location and identifying number of each shot point,

(i) show the total length in kilometres of all existing cutlines that were utilized to acquire data,

(j) show the total length in kilometres and width in metres of all new cutlines that were cut to acquire data, and

(k) show the total length in kilometres and width in metres of all new cutlines that were cut to gain access.

(5.1) If an authorized commission employee considers it appropriate in the circumstances of a particular case, he or she may grant to an operator a written exemption from one or more of paragraphs (a) to (k) of subsection (5), subject to any conditions specified in the exemption.

(6) An authorized commission employee may require the operator to submit processed record sections or other geophysical data deemed appropriate by the authorized commission employee.

[am. B.C. Reg. 257/2003, Sch. A, s. 2.]

Registered traplines

5 (1) An operator must, before commencement of work, endeavour to provide notice to the holders of registered traplines in the area of proposed geophysical exploration.

(2) The notice must include a detailed description of the operations and the course to be followed by any equipment used, and the operator must report to the commission the methods used to provide this notification.

(3) If an authorized commission employee considers it appropriate in the circumstances of a particular case, he or she may grant to an operator a written exemption from subsection (1), subject to any conditions specified in the exemption.

[am. B.C. Reg. 257/2003, Sch. A, s. 3.]

Consent of highway authorities

6 Geophysical exploration must not be conducted within any highway right of way maintained by the minister responsible for the Transportation Act until the consent in writing of that minister has first been obtained, and a copy of that consent must be supplied immediately to the commission.

[am. B.C. Reg. 602/2004, s. 2.]

Survey monuments

7 (1) Before commencement of any clearing, ditching or grading work, an operator must

(a) ascertain from the Surveyor General the location of survey monuments in the vicinity of the proposed work,

(b) mark conspicuously the location of each monument by a flag attached to the top of a pole at least 2 metres from the ground, and

(c) take precautions as necessary to ensure that no monument is defaced, altered, disturbed or damaged during the course of the work.

(2) If an operator finds a monument in a damaged or disturbed condition the operator must report this immediately to the commission.

(3) An operator who has destroyed, moved or damaged a monument must

(a) make a full report immediately to the commission,

(b) ensure that the monument is restored by a British Columbia Land Surveyor, and

(c) bear the full costs of the restoration.

Geophysical exploration near pipeline, utility, residence, etc.

8 (1) If geophysical exploration is conducted in the vicinity of any gas, oil or water pipeline or well, electric cable, transmission line, utility, residence or other improvement, every precaution must be taken by the operator to ensure that the pipeline, well, electric cable, transmission line, utility, residence or other improvement is not damaged and that its use is not interrupted.

(2) Despite the generality of subsection (1), any method of geophysical exploration in relation to a facility described in column (1) of the Schedule must not be conducted at a distance less than the minimum distance shown in column (2) or (3).

Shot hole plugging

9 (1) A shot hole must be plugged immediately after drilling in the following manner:

- (a) the drilling mud and any material from the hole must be returned to fill the hole;
 - (b) a plug of a diameter not less than that of the hole must be driven into the hole to a depth of not less than 45 centimetres below the surface;
 - (c) the section above the plug must be filled with a suitable material, approved by an authorized commission employee, and firmly tamped;
 - (d) any surplus soil or other material removed in the drilling of any hole must be spread so as to avoid interference with drainage, and ground contours must be restored as nearly as possible to original condition.
- (2) If a shot hole has been drilled but an explosive has not been placed in the hole, a temporary plug may be used.
- (3) If, during the course of operations, a plug from a previously abandoned hole is disturbed, the operator must complete the plugging in accordance with this section.

Marking shot holes

10 (1) A shot hole, before or immediately after being drilled, must be marked with a metal tag.

- (2) If seismic exploration does not entail the drilling of holes, all lines used to acquire data must be marked with a minimum of 8 metal tags per kilometre.
- (3) Metal tags must be of a minimum size of 5 centimetres by 7 centimetres, inscribed with the project number, line number and shot point number in such a manner that the information does not become illegible or obliterated.
- (4) The tag must be wired or nailed to a post or tree if possible or otherwise be fixed in close proximity to and not more than 10 metres from the shot hole or shot point, and if the shot hole or shot point is on a road allowance or highway right of way the tag must be on the same side of the road allowance or highway.
- (5) If an authorized commission employee considers it appropriate in the circumstances of a particular case, he or she may grant to an operator a written exemption from one or more of subsections (1) to (4), subject to any conditions specified in the exemption.

[am. B.C. Reg. 257/2003, Sch. A, s. 4.]

Unexploded charges

11 (1) Explosives must not be left in a hole unless sufficient earth is placed in the hole to secure the explosive.

(2) An explosive charge that fails to discharge must be detonated immediately by another shot, or the charge and any wires remaining attached thereto must be buried in the hole and the hole filled with earth and plugged in accordance with section 9.

(3) The operator must take all necessary actions to ensure that unexploded charges do not present a hazard to persons or property.

(4) The operator, on completion of a project, must report all unexploded charges to the commission.

Flow of gas or water

12 (1) If gas or water is released and flows to the surface during or after the drilling of a hole,

(a) drilling must be discontinued immediately,

(b) an explosive charge must not be detonated in the hole,

(c) the hole must be plugged in a manner that confines the gas or water to the originating stratum or aquifer and does not hinder future use of the surface for agriculture or other purposes, and

(d) a flowing hole report must be submitted without undue delay to the commission.

(2) Despite subsection (1), a hole may be completed as a water well if

(a) proof is filed with the commission that arrangements have been made previously with the surface owner and lawful occupant, or their agents, to complete the hole,

(b) the flow of water is properly controlled,

(c) completion of the hole will not result in damage to other lands or property or interfere with the rights of others, and

(d) the hole is not located on a highway.

Inspection

13 (1) An operator who has conducted a project when the ground is frozen in an area used for agricultural purposes or that is frequented or likely to be frequented by persons or domestic animals must

(a) inspect all shot holes drilled during the project and do any work required to place the shot holes in a condition that meets the requirements of sections 9 (1), 10 (1), (3) and (4), 11 (2) and (3) and 12 (1) (c), and

(b) submit a report to the commission listing all shot holes inspected, the date on which the inspection was done, the condition of the shot holes and the remedial work undertaken.

(2) The requirements of subsection (1) must be performed during the period immediately following spring breakup and before August 31 of that year.

(3) Despite subsection (2), if the project is located in an area of government reserve used for community pasture purposes, the requirements of subsection (1) must be performed during the period immediately following spring breakup and before May 31 of that year.

(4) If an authorized commission employee considers that ground conditions are such that unreasonable damage to the ground would be caused by an inspection required under subsection (1), he or she may grant to an operator a written exemption from the time constraint in subsection (2) or (3), subject to a condition requiring the inspection to be carried out within a specified period.

[am. B.C. Reg. 257/2003, Sch. A, s. 5.]

Refuse removal

14 Flags, pin flags, any other temporary survey marker and all refuse resulting from the conduct of geophysical exploration must be removed by the operator when the project is completed.

Campsite abandonment

15 A campsite must not be abandoned until

(a) all refuse, liquid wastes and garbage have been disposed of in a manner that will not have an adverse effect on the environment,

(b) all slash resulting from campsite construction has been burned or otherwise disposed of in a manner that will not have an adverse effect on the environment, and

(c) the site has been levelled and restored as nearly as possible to the conditions that prevailed when operations were commenced.

Repair of damage

16 (1) If geophysical exploration causes damage to any land or property, an operator must

(a) take immediate steps to prevent further damage, and

(b) repair the damage as soon as possible.

(2) If the operator does not make the repair required by subsection (1) an authorized commission employee may order the repair and recover the cost of repair from the bond provided under section 18.

Use of trails and roads made on Crown lands

17 (1) Any person may, without charge, use for ordinary travel the trails or roads built by an operator upon Crown lands or maintained by the operator in connection with his exploratory operations.

(2) A person must not interfere in any way with the use of a trail or road built or maintained by the operator.

Bonding

18 As a requirement of a project, the commissioner or deputy commissioner may order an operator to provide a performance bond in an amount not to exceed \$100 000.

Term of geophysical licence

19 A geophysical licence is valid for a term not exceeding 3 years from the date it is issued or renewed.

[en. B.C Reg. 257/2003, Sch. A, s. 6.]

Schedule

(section 8 (2))

1 In this Schedule, "oil or gas pipeline" means a pipeline for the transmission of oil or gas that has a maximum operating pressure of 690 kilopascals or greater.

(1)

Facility (2)

Non-explosive Method (3)

Explosive Method

Charge Weight

(kg) Distance

(metres)

Residence or place of public concourse 50 all 180

Water well 100 (Vibroiseis)

50 (other than vibroseis) all 180

Driveway, gateway or buried water pipelines 5 all 10

Survey monument or buried telephone or
telecommunication line 1 all 1

Oil or gas pipeline (measured from the centre line
of the pipeline) and an oil or gas well 15

> 2

> 4

> 6

> 8

> 10

> 20

> 40 <2

<4

<6

<8

<10

<20

<40

<100 32

45

55

64

72

101

143

226

Note: this regulation replaces B.C. Reg. 348/88.

[Provisions of the Petroleum and Natural Gas Act, R.S.B.C. 1996, c. 361, relevant to the enactment of this regulation: section 36]

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