

Geothermal Resources Act

GEOHERMAL OPERATIONS REGULATION

Contents

Part 1 — Definitions

1 Definitions

Part 2 — Geothermal Exploration

2 Notification

Part 3 — Application for Well Authorization

3 Well authorization application

Part 4 — Wells and Production Facilities

Division 1 — All Wells

- 4 Well names
- 5 Position of wells
- 6 Notification of well construction and drilling operations
- 7 Well site signs
- 8 Protection from hazards
- 9 Well control equipment
- 10 Testing of well control equipment
- 11 Drilling fluid system
- 12 Well control
- 13 Personnel
- 14 Records
- 15 Tools, casing, equipment and materials
- 16 Wellhead requirements
- 17 Management of substances
- 18 Inactive or suspended wells
- 19 Plugging requirements for wells
- 20 Pulling casing
- 21 Disposal of drilling and production material
- 22 Tour sheets and drilling operations reports
- 23 Deviation and directional surveys
- 24 Well reports
- 25 Fire prevention
- 26 Fencing

Division 2 — Additional Requirements for Geothermal Wells

- 27 Spacing of wells
- 28 Hydraulic fracturing operations
- 29 Induced seismicity
- 30 Hydraulic isolation

- 31 Casing requirements
- 32 Surface and subsurface equipment
- 33 Completion and workover reports
- 34 Fracturing fluids records
- 35 Samples and cores
- 36 Analyses and data

Division 3 — Additional Requirements for Thermal Gradient Wells

- 37 Reporting

Division 4 — Production Facilities

- 38 Notice
- 39 Requirements

Part 5 — Production

- 40 Measurements
- 41 Injection and disposal
- 42 Production data
- 43 Report of geothermal production

Part 6 — General

- 44 Well authorization expiry
- 45 Suspension or revocation
- 46 Fee for certificate of restoration
- 47 Security

Part 1 — Definitions

Definitions

1 In this regulation:

"abandon", in relation to a well, means permanently to plug the well in accordance with Part 5 of the Drilling and Production Regulation, B.C. Reg. 282/2010;

"Act" means the Geothermal Resources Act;

"active", in relation to a well, refers to a well that is used for any of the following:

- (a) production, injection or disposal of fluids;
- (b) drilling, completion or workover operations;
- (c) monitoring reservoir pressure or obtaining other formation information;

"ASME B31.3" means the the American Society of Mechanical Engineers standard ASME B31.3, Process Piping, as amended from time to time;

"barrier" means any fluid, plug or seal that prevents fluids from flowing unintentionally from a well or from a formation into another formation;

"completed", in relation to a well or zone, means a well or zone that is physically able to permit

- (a) the production of steam or fluids from the well or zone,
- (b) the observation of the performance of a reservoir, or
- (c) the injection or disposal of fluids;

"CSA Z662" means the Canadian Standards Association standard CSA Z662, Oil and Gas Pipeline Systems, as amended from time to time;

"Enform" means the non-profit organization of Canadian petroleum industry trade associations which provides certification, training and health and safety services to the oil and gas industry;

"inactive well" means a well that has not been abandoned but has not been active for 12 or more consecutive months;

"natural boundary" has the same meaning as in section 1 of the Land Act;

"official" means a person designated by the commission to carry out a duty or exercise a power of the commission under the Act;

"Peace River Block" has the same meaning as in the Petroleum and Natural Gas Grid Regulation, B.C. Reg. 536/2004;

"producing", in relation to a well, means a completed well that has been placed on regular production;

"qualified professional" means a person who is licensed or registered as either a professional engineer or a professional geoscientist under the Engineers and Geoscientists Act;

"quarter unit" has the same meaning as in the Petroleum and Natural Gas Grid Regulation;

"thermal gradient well" means a well drilled to obtain geotechnical information about a geothermal resource;

"unit" has the same meaning as in the Petroleum and Natural Gas Grid Regulation;

"unused equipment" means equipment on a location that

- (a) is related to a decommissioned activity,
- (b) is dismantled or partially dismantled to render the equipment inadequate for use,
- (c) is in a derelict condition, or
- (d) has been inactive for 10 years or longer;

"water body" means a natural water course or source of water supply, whether usually containing water or not, but does not include muskeg;

"water supply well" has the same meaning as in the Groundwater Protection Regulation, B.C. Reg. 39/2016;

"well control" means control of the movement of fluids into or from a well;

"well operation" means the operation of drilling, completing, recompleting, intervening, re-entering, carrying out a workover, suspending or abandoning a well;

"workover" means

- (a) any operation that changes the configuration or producing characteristics of a well or zone,
- (b) the installation or removal of equipment from a wellbore,
- (c) stimulation operations, and
- (d) maintenance operations.

Part 2 — Geothermal Exploration

Notification

2 A notification under section 4 (6) of the Act must be made at least 7 days before starting work other than well drilling and must contain the following information:

- (a) the commencement date of the field work;
- (b) the name and phone number of the field contact;
- (c) a summary of the work to be undertaken in the field;
- (d) plans to deal with emergencies that may arise;
- (e) the estimated end date of the field work.

Part 3 — Application for Well Authorization

Well authorization application

3 A person may apply to the commission for a well authorization by submitting all of the following:

- (a) a fee of \$3 000 for one or more thermal gradient wells drilled by a person with respect to the same formation, and \$12 000 for every other type of well;
- (b) \$2 000 for each facility associated with the well;
- (c) proof of tenure or right to use private land;
- (d) a well site survey and well site survey plan prepared to the satisfaction of an official.

Part 4 — Wells and Production Facilities

Division 1 — All Wells

Well names

4 (1) A well name must clearly indicate

- (a) the name of the well authorization holder, and
- (b) the site of the well
 - (i) in the Peace River Block, by legal subdivision, section, township and range, or
 - (ii) outside the Peace River Block, by quarter-unit, unit and block.
- (2) A person with an interest in a well may apply to the commission to change the well's name.
- (3) The commission may, on application under subsection (2) or on its own initiative, change a well's name.

Position of wells

5 (1) If a well or facility associated with a well is

- (a) closer than 100 m to the natural boundary of a water body, or
- (b) 100 m or more from the natural boundary of a water body, but situated so that, given the topography or other relevant factors, it is likely that an uncontrolled flow of fluids may reach the water body, the authorization holder must ensure surface-control features are in place, or surface-control measures have been taken, to contain escaping fluids.
- (2) A well authorization holder must not drill a well within
 - (a) 40 m of the right of way or easement of any road allowance or public utility,
 - (b) 100 m of a permanent building, installation or works,
 - (c) 100 m of a public area,
 - (d) 100 m of a place reserved or used for national defence, or
 - (e) 3 km of a subsurface mine or underground storage facility.

Notification of well construction and drilling operations

6 (1) It is a condition of a well authorization that the holder must notify the commission, in electronic form, before doing any of the following:

- (a) beginning the construction of infrastructure associated with a well;
- (b) beginning the drilling of a well;
- (c) releasing a rig, if drilling is completed or temporarily suspended;
- (d) resuming drilling operations after a temporary suspension;
- (e) completing or recompleting a well;
- (f) performing a workover on a well;
- (g) installing, removing or repairing wellbore equipment, including plugs, packers, tubing, casing, artificial lift or subsurface safety valves;
- (h) plugging a portion of a well.
- (2) Notice under subsection 1 (a) must be provided at least 7 days before construction is to begin, and notice under subsection 1 (b) to (h) must be provided at least 24 hours before the action is taken.

Well site signs

7 (1) Subject to subsection (2), a well authorization holder must ensure that a permanently legible and conspicuous sign is displayed and maintained at each well site, and the sign must include all of the following:

- (a) the name of the well authorization holder;
- (b) the well name;
- (c) hazard warnings;
- (d) emergency contact information;
- (e) the location of the well.

(2) A well authorization holder must not include a hazard warning at a well site if no hazard exists.

Protection from hazards

8 A well authorization holder must ensure

- (a) that the well site is maintained in a condition so as to minimize hazards, including but not limited to hazards associated with pits, holes, storage of materials and equipment,
- (b) that the well site is free of garbage, debris and unused equipment, and
- (c) that any operational procedure that is a hazard to safety or the environment is corrected and all persons carrying out operations at the well site are informed of the alteration.

Well control equipment

9 (1) A well authorization holder must ensure that, during all well operations, reliably operating well control equipment is installed to control kicks, prevent blowouts and safely carry out all well operations.

(2) If a well barrier fails, the well authorization holder must ensure that no other activities, other than those intended to restore or replace the barrier, take place in the well.

Testing of well control equipment

10 (1) A well authorization holder must ensure that

- (a) pressure-control equipment associated with well operations is pressure-tested on installation and as often as necessary during well operations to ensure the continued safe operation of the equipment, and
 - (b) the rig crew conducting the well operation has an adequate understanding of, and is able to operate, blowout prevention equipment.
- (2) At the request of an official, a well authorization holder's contractor or rig crew, when it is safe to do so, must test the operation and effectiveness of the blowout prevention equipment installed on the authorization holder's well in accordance with the Blowout Prevention Manual issued by Enform.
- (3) A well authorization holder must maintain, for 60 days from the date of rig release, a record of the results of tests required under subsection (2).

Drilling fluid system

11 A well authorization holder must ensure that

- (a) the drilling fluid system and associated monitoring equipment is designed, installed, operated and maintained
 - (i) to allow for proper well evaluation,
 - (ii) to ensure safe drilling operations, and
 - (iii) except when drilling underbalanced, to provide an effective barrier against formation pressure, and
- (b) the indicators and alarms associated with the monitoring equipment are located at appropriate locations on the drilling rig to alert onsite personnel of well conditions that could lead to a loss of well control.

Well control

12 (1) A well authorization holder must take all reasonable measures to minimize the risk of loss of well control.

(2) If well control is lost or compromised, the well authorization holder must ensure that all actions necessary to rectify the situation are taken without delay.

Personnel

13 (1) A well authorization holder must ensure that there is a sufficient number of trained and competent individuals carrying out well operations for those operations to be carried out safely and without causing a hazard to the environment.

(2) A driller of a well being drilled or tested during drilling operations must

- (a) be trained in blowout prevention,
- (b) have one of the following certificates issued by Enform:

- (i) a valid first-line supervisor's blowout prevention certificate;
- (ii) a valid second-line supervisor's well control certificate, and
- (c) provide evidence of his or her qualifications to the commission on the commission's request.
- (3) A rig manager and the well authorization holder's representative at the well site where a well is being drilled or tested during drilling operations must
 - (a) be trained in blowout prevention,
 - (b) have a valid second-line supervisor's well control certificate issued by Enform, and
 - (c) provide evidence of his or her qualifications to the commission on the commission's request.
- (4) During well servicing operations, the following people must have a valid well service blowout prevention certificate issued by Enform and provide evidence of their qualifications to the commission on the commission's request:
 - (a) the driller on tour;
 - (b) the rig manager;
 - (c) the well authorization holder's representative.

Records

14 (1) For each well operation, a well authorization holder must maintain, for 6 months following the completion of the well operation, a record of

- (a) well control equipment used at the well site, and
- (b) an assessment of the adequacy of the well control equipment.
- (2) A well authorization holder must maintain records of the policies and procedures used to ensure the safe conduct of well operations.

Tools, casing, equipment and materials

15 A well authorization holder must ensure that all tools, casing, equipment and materials are

- (a) fit for purpose,
- (b) in good condition, and
- (c) operated or installed in accordance with manufacturer's specifications or sound engineering practices.

Wellhead requirements

16 A well authorization holder must ensure that the wellhead equipment, including valves, is fit for purpose and not subjected to excessive force.

Management of substances

17 A well authorization holder must ensure that, before well operations begin, equipment for effectively managing drilling fluid, completion fluid, produced fluids and waste is on the well site.

Inactive or suspended wells

18 (1) A well authorization holder of an inactive well must, within 60 days of the well becoming inactive, suspend the well in a manner that ensures ongoing integrity of the well.

- (2) A well authorization holder of a suspended well must
 - (a) notify the commission of the suspension within 30 days of the suspension,
 - (b) establish a program of inspections sufficient to ensure the ongoing integrity of the well, and
 - (c) maintain inspection records of the well.

Plugging requirements for wells

19 (1) A well authorization holder must submit to the commission, at least 7 days before beginning well operations, a plan for well plugging addressing the matters referred to in subsection (2).

(2) When plugging a well, the well authorization holder must plug the well in a manner that ensures all of the following:

- (a) adequate hydraulic isolation is established between porous zones;
- (b) fluids will not leak from the well;
- (c) excessive pressure will not build up within any portion of the well;
- (d) long-term integrity of the wellbore is maintained.

(3) A well authorization holder must submit to the commission, within 30 days of abandoning a well, an abandonment report detailing all operations, treatments, tests and any resulting well behaviour, including a downhole schematic diagram.

Pulling casing

20 A well authorization holder must ensure that casing or other equipment is not removed from the holder's well if the casing or equipment is essential for well control or the prevention of inter-zonal communication.

Disposal of drilling and production material

21 (1) A well authorization holder must ensure that formation water, oil, drilling fluid, completion fluid, waste, chemical substances or refuse from a well, tank or other facility do not do any of the following:

- (a) create a hazard to public health or safety;
 - (b) run into or contaminate any water supply well, usable aquifer or water body or remain in a place from which it might contaminate any water supply well, usable aquifer or water body;
 - (c) run over, pollute or damage any land or public road;
 - (d) pass into or, in the case of ice, over any water body that is frequented by fish or wildlife or that flows into any such water body.
- (2) A well authorization holder who deposits into a pit drilling fluids that may be harmful to domestic livestock or big game must maintain the pit so as to prevent domestic livestock or big game from ingesting the fluids.
- (3) A well authorization holder who uses an earthen pit to store liquid waste from a well drilling operation must ensure that the pit is
- (a) not located within 100 m of the natural boundary of a water body,
 - (b) not located within 200 m of a water supply well,
 - (c) constructed of clay or other suitable impermeable material with the bottom of the pit above ground water level,
 - (d) located or ditched so that it will not collect natural run-off water,
 - (e) filled to not more than one metre below the point of overflow at any given time, and
 - (f) completely emptied and any excavation filled without unreasonable delay after completion of the drilling of the well.
- (4) Within 90 days of completing a drilling waste disposal, a well authorization holder must submit to the commission a report of the drilling waste disposal.
- (5) A well authorization holder who, in a structure, stores water-based fluids with a concentration of total dissolved solids greater than 4 000 ppm that have been generated from or are being stored for the purpose of hydraulic fracturing operations must ensure all of the following:
- (a) that the ground surface on which the structure will be constructed is prepared to the satisfaction of an official;
 - (b) that the structure is not located within 100 m of the natural boundary of a water body unless the structure is on a permitted well location;
 - (c) that the capacity of each structure is not greater than 6 600 m³;
 - (d) that the structure is located and constructed in a place and manner that ensures the contained fluids will not significantly migrate beyond the structure in the event of a containment failure;
 - (e) that the retaining walls of the structure are designed to withstand the hydraulic pressure of the contents at full capacity;
 - (f) that the installation of the liner system is completed to the satisfaction of an official;
 - (g) that the structure is filled to not more than 50 cm below the point of overflow at any given time;
 - (h) that the structure is equipped with measures to prevent waterfowl from coming in contact with the fluids;
 - (i) that when the structure contains fluid, it is inspected daily for leaks and a record of inspection is maintained until the site is decommissioned;
 - (j) that any sign of leakage is reported to the commission within 24 hours of discovery;
 - (k) that the structure is decommissioned and removed from the site within one year from the date of first use unless there exists an engineered, lined or otherwise impermeable secondary containment system designed and maintained to be capable of holding a minimum of 110% of the fluid in the structure.

Tour sheets and drilling operations reports

22 (1) A well authorization holder of a well being drilled must

- (a) ensure that a daily drilling report (tour sheet) is kept at the well site,
- (b) if a kick occurs during drilling operations, notify the commission immediately and submit a written kick report to the commission within one day of the incident,
- (c) submit a copy of the daily drilling report (tour sheet) to the commission within 30 days of rig release,
- (d) submit a summary report of drilling operations to the commission within 4 days of the following:
 - (i) the date the rig is released;
 - (ii) the date drilling operations have been suspended.

(2) A daily drilling report (tour sheet) kept under subsection (1) (a) must set out complete data on all operations performed during the one day.

Deviation and directional surveys

23 (1) A well authorization holder must ensure that deviation surveys are made during drilling at intervals not exceeding 150 m in depth.

(2) A well authorization holder must ensure that a directional survey of a well to total depth is made.

(3) A well authorization holder must submit to the commission within 14 days of rig release the results of the directional survey under subsection (2).

Well reports

24 Within 60 days after the date of rig release, a well authorization holder must submit to the commission a well report that includes the applicable of the following:

- (a) unprocessed and processed log data;
- (b) dipmeter surveys;
- (c) directional surveys;
- (d) drill stem test data and analyses;
- (e) wire line data;
- (f) pressure-volume-temperature and flow test data and analyses;
- (g) completion information;
- (h) geological information;
- (i) drilling depths;
- (j) casing and cementing information;
- (k) well status;
- (l) fluid sample or analysis data;
- (m) drill cuttings and any analysis and description of the drill cuttings and cores.

Fire prevention

25 A well authorization holder must have and maintain a fire prevention policy to the satisfaction of an official and ensure that the policy can be carried out in case of a fire.

Fencing

26 A well authorization holder must install and maintain fencing around completed wells and facilities if the well or facility is within one km of an area where there is an occupied dwelling, a school, a picnic ground or other public area.

Division 2 — Additional Requirements for Geothermal Wells

Spacing of wells

27 If a lease is issued to a well authorization holder under section 8 (1) of the Act, the well authorization holder must ensure that any subsequent wells on the location of the lease conform with the development plan associated with the lease.

Hydraulic fracturing operations

28 A well authorization holder must not conduct a hydraulic fracturing operation at a depth less than 600 m below ground level.

Induced seismicity

29 (1) During fracturing, injection, or disposal operations on a well, a well authorization holder must immediately report to the commission any seismic event within a 3 km radius of the drilling pad that is recorded by the well permit holder or reported to the well permit holder by any source available, if

- (a) the seismic event has a magnitude of 4.0 or greater, or
 - (b) a ground motion is felt on the surface by any individual within the 3 km radius of the drilling pad.
- (2) If a well is identified by the well authorization holder or the commission as being responsible for a seismic event under subsection (1), the well authorization holder must suspend fracturing, injection and disposal operations on the well immediately.

(3) Fracturing and disposal operations suspended under subsection (2) may continue once the well authorization holder has implemented operational changes satisfactory to the commission to reduce or eliminate the initiation of additional induced seismic events.

Hydraulic isolation

30 A well authorization holder must establish and maintain hydraulic isolation between all porous zones in a well.

Casing requirements

31 (1) A well authorization holder must ensure that casing is designed so that it will not fail if subjected to the maximum loads and service conditions that can reasonably be anticipated during the expected service life of the well.

(2) A well authorization holder must use non-toxic drilling fluid during the drilling of a well until, in the opinion of a qualified professional, all porous strata that

- (a) are less than 600 m below ground level, and
 - (b) contain non-saline groundwater that is usable for domestic or agricultural purposes
- have been isolated from the drilling fluid.

(3) A well authorization holder must ensure that surface casing for a well conforms to the following requirements:

- (a) surface casing must be set in a competent formation for anticipated well pressures;
 - (b) the annulus must be filled with cement to the surface.
- (4) A well authorization holder must ensure that surface casing cement is not drilled out until sufficient compressive strength has been reached to allow the safe conduct of drilling operations.

(5) A well authorization holder must ensure that

- (a) all reasonable measures are taken to cement all intermediate and production casing to the surface or a minimum of 200 m above the shoe of the previous casing string, and
- (b) the cement is not drilled out until sufficient compressive strength has been reached to allow the safe conduct of drilling operations.

(6) If there is any reason to doubt the effectiveness of casing cementation, a well authorization holder must ensure that a survey is made to evaluate the cement integrity and that any necessary remedial measures are taken.

(7) On detection of a casing leak or failure, a well authorization holder must

- (a) notify the commission about the leak or failure without delay, and
- (b) repair the leak without unreasonable delay.

(8) A well authorization holder must ensure that a well is configured so that the casing is able to vent.

Surface and subsurface equipment

32 (1) A well authorization holder must ensure that subsurface equipment of the well enables the ready measurement of the tubing pressure, production casing pressure and surface casing pressure.

(2) A well authorization holder must ensure that surface equipment includes equipment necessary for production sampling and tests.

(3) A well authorization holder must keep a record listing all subsurface equipment in the well at all times prior to abandonment.

Completion and workover reports

33 A well authorization holder must submit completion and workover reports, prepared to the satisfaction of an official, to the commission within 30 days of completion or workover.

Fracturing fluids records

34 (1) A well authorization holder must maintain detailed records of hydraulic fracturing operations and of the composition of all fracturing fluids that are used in a well for which the holder is responsible.

(2) A well authorization holder must submit to the commission the records referred to in subsection (1) within 30 days after the completion of the well.

Samples and cores

35 (1) A well authorization holder must

(a) take a series of drill cuttings samples at depth intervals of 10 m beginning from below surface casing to the total depth,

(b) collect, wash, dry, sort and preserve 2 complete sets of drill cuttings samples in vials, arranged in trays of adequate construction, and

(c) clearly and accurately label the vials and trays with the name and location of the well and the sample depths represented and, if the well is a multi-leg well, identify the leg from which the cuttings originated.

(2) A well authorization holder must

(a) as soon as practicable after collecting a core sample, remove the core sample from the core barrel and store it in book fashion in one or more core boxes,

(b) accurately label on the end of the box body, but not the box lid, the well name, the surface location of the well, the core number and interval and the length of the core recovered, and identify the top and bottom of the core on the core box, and

(c) protect boxes containing the cores from theft, misplacement or exposure to the weather.

(3) A well authorization holder must ensure that core boxes are of adequate construction, the sides of the boxes project above the level of the contained cores, lids are securely fixed to ensure safe transit and the boxes have an inside length of 80 cm.

(4) When submitting a core that has been slabbed, a well authorization holder must ensure that the 1/3 slab is either placed in the core box with the corresponding 2/3 slab, or, preserved as a viewing slab and submitted in boxes of adequate construction.

Analyses and data

36 A well authorization holder must submit the following information to the commission within 30 days after completing the analysis or obtaining the data:

(a) a bottom hole sample analysis;

(b) a pressure-volume-temperature analysis;

(c) measurement data made on a well for the purpose of investigating the well's producing characteristics.

Division 3 — Additional Requirements for Thermal Gradient Wells

Reporting

37 (1) Not more than 3 months after the date of rig release of the drilling rig from a thermal gradient well, a well authorization holder must submit a report to the commission containing the following information:

(a) the location of the thermal gradient well drilled relative to the nearest corner of the legal subdivision or quarter unit in which the thermal gradient well is positioned;

(b) the ground elevation of the thermal gradient well drilled, in metres, above sea level;

(c) the total depths, in metres, of the thermal gradient well;

(d) a report of any lost circulation zones encountered or blowouts reported during the drilling of the thermal gradient well.

(2) The well authorization holder must submit to the commission one copy of each log, including temperature measurements, taken at a thermal gradient well within 30 days after the date the log or measurement was taken.

(3) Information obtained from a thermal gradient well that is received by the commission in the course of the administration of the Act must be held confidential.

Division 4 — Production Facilities

Notice

38 (1) A well authorization holder must notify the commission at least 2 days before

- (a) beginning to construct or modify a production facility associated with a well, or
- (b) carrying out pressure tests at a production facility.

(2) A well authorization holder must notify the commission at least one day before

- (a) beginning production, or
- (b) putting new or modified equipment into service.

Requirements

39 A well authorization holder must, for any facility associated with the well,

- (a) maintain detailed flow diagrams, metering schematics and gathering schematics,
- (b) design, construct and operate all equipment and piping systems in accordance with ASME B31.3 or CSA Z662 and manufacturer's specifications, and
- (c) submit to the commission all as-built drawings and schematics, signed and sealed by a qualified professional, within 3 months of beginning operations at a facility, or after a major modification of a facility.

Part 5 — Production

Measurements

40 A well authorization holder must ensure that fluid production from a well is measured with sufficient accuracy for the applicable of the following:

- (a) production accounting;
- (b) managing wells, pipelines, facilities and reservoirs;
- (c) quantification of waste discharges;
- (d) the assessment of royalties.

Injection and disposal

41 (1) A well authorization holder must ensure that the quantity and rate of water, gas, air or any other fluid injected through a well to an underground formation is metered and that the injection pressure at the wellhead is measured.

(2) If a well authorization holder injects or disposes of water, gas, air or any other fluid into an underground formation, the well authorization holder must submit a monthly injection or disposal report, indicating the quantity and rate of the fluid injected or disposed of, the wellhead injection or disposal pressure and the total monthly operating hours, to the commission within 25 days after the end of the calendar month in which the activity occurred.

Production data

42 A well authorization holder must keep, for not less than 72 months, complete, correct and accurate records of production data adequate for production accounting purposes and the assessment of royalties.

Report of geothermal production

43 A well authorization holder must submit to the commission within 25 days after the end of the production month a report of production dates, hours produced, volumes produced and pressures measured.

Part 6 — General

Well authorization expiry

44 A well authorization expires on the date that is 2 years after the date it was issued if the holder has not, by that date, begun an operation under the well authorization.

Suspension or revocation

45 An official may suspend or revoke a well authorization if, in the opinion of the official,

- (a) the holder of the authorization is in contravention of the Act, a regulation under the Act, or a condition of an authorization, or
- (b) the holder of the authorization has not carried out operations under the authorization for a period the official considers unreasonable.

Fee for certificate of restoration

46 A person requesting that the commission issue a certificate of restoration under section 16 of the Act must submit to the commission a fee of \$2 000.

Security

47 (1) The following security is prescribed for the purposes of section 12 (4) of the Act:

(a) \$225 000 for a geothermal well;

(b) \$7 500 for each thermal gradient well drilled by a person with respect to the same formation to a maximum of \$50 000.

(2) The commission must return the security in its entirety to a person who provided the security if

(a) a certificate of restoration has been issued in respect of all the person's authorizations, or

(b) security is no longer required to secure the person's obligations under the Act.

[Provisions relevant to the enactment of this regulation: Geothermal Resources Act, R.S.B.C. 1996, c. 171, section 23]

Copyright (c) Queen's Printer, Victoria, British Columbia, Canada