

AMENDED AND RESTATED BY-LAWS OF LUNDIN MINING CORPORATION

LUNDIN MINING CORPORATION
Amended and Restated By-law No. 1
Table of Contents

	Page
SECTION ONE INTERPRETATION	1
1.01 Definitions.....	1
1.02 Construction.....	1
1.03 Subordination.....	2
SECTION TWO BUSINESS OF THE CORPORATION	2
2.01 Registered Office.....	2
2.02 Corporate Seal.....	2
2.03 Financial Year.....	2
2.04 Execution of Instruments.....	2
2.05 Execution in Counterpart, by Fax and by Electronic Signature.....	2
2.06 Subject to the Act or other applicable law:	2
2.06 Banking Arrangements.....	3
2.07 Voting Rights in Other Bodies Corporate.....	3
2.08 Divisions.....	3
SECTION THREE BORROWING AND SECURITY.....	4
3.01 Borrowing Power.....	4
3.02 Delegation.....	4
SECTION FOUR DIRECTORS	4
4.01 Number of Directors.....	4
4.02 Election and Term.....	5
4.03 Advance Notice for Nomination of Directors.....	5
4.04 Removal of Directors.....	8
4.05 Vacation of Office.....	8
4.06 Appointment of Additional Directors.....	8
4.07 Action by the Board.....	8
4.08 Meeting by Telephonic or Other Electronic Facilities.....	8
4.09 Place of Meetings.....	8
4.10 Calling of Meetings.....	9
4.11 Notice of Meeting.....	9
4.12 Adjourned Meeting.....	9
4.13 Regular Meetings.....	9
4.14 Chair.....	9
4.15 Quorum.....	9
4.16 Votes to Govern.....	10
4.17 Electronic Voting.....	10
4.18 Conflict of Interest.....	10
4.19 Remuneration and Expenses.....	10
4.20 Transaction of Business by Signature.....	10

SECTION FIVE COMMITTEES	10
5.01 Committees of the Board.	10
5.02 Transaction of Business.....	10
5.03 Audit Committee.	11
5.04 Advisory Bodies.	11
5.05 Procedure.	11
SECTION SIX OFFICERS	11
6.01 Appointment.....	11
6.02 Chair of the Board.....	11
6.03 Chief Executive Officer.	11
6.04 President.....	11
6.05 Secretary.....	12
6.06 Treasurer.	12
6.07 Powers and Duties of Officers.....	12
6.08 Term of Office.	12
6.09 Agents and Attorneys.....	12
6.10 Conflict of Interest.	12
SECTION SEVEN PROTECTION OF DIRECTORS, OFFICERS AND OTHERS	12
7.01 Limitation of Liability.....	12
7.02 Indemnity.	13
7.03 Advance of Costs.....	13
7.04 Additional Circumstances.....	13
7.05 Insurance.	13
SECTION EIGHT SHARES.....	14
8.01 Allotment of Shares.....	14
8.02 Commissions.	14
8.03 Registration of Transfers.....	14
8.04 Non-recognition.....	14
8.05 Share Certificates.	14
8.06 Replacement of Share Certificates.	15
8.07 Joint Shareholders.	15
8.08 Deceased Shareholders.	15
8.09 Transfer Agents and Registrars.	15
8.10 Record Dates.	15
SECTION NINE DIVIDENDS AND OTHER DISTRIBUTIONS.....	15
9.01 Dividends and Other Distributions.....	15
9.02 Payment of Distributions.	15
9.03 Record Date.....	16
9.04 Non-Receipt of Payment.....	16
9.05 Unclaimed Distributions.	16
SECTION TEN MEETINGS OF SHAREHOLDERS.....	16
10.01 Annual Meetings.	16
10.02 Special Meetings.....	16
10.03 Place of Meetings.....	16

10.04	Participation in Meeting by Electronic Means.....	17
10.05	Meeting held by Electronic Means.	17
10.06	Notice of Meetings.	17
10.07	List of Shareholders Entitled to Notice.	17
10.08	Record Date for Notice.....	17
10.09	Meetings Without Notice.	18
10.10	Advance Notice for Proposals.....	18
10.11	Chair, Secretary and Scrutineers.	18
10.12	Persons Entitled to be Present.....	18
10.13	Quorum.....	19
10.14	Right to Vote.	19
10.15	Proxyholders and Representatives.	19
10.16	Time for Deposit of Proxies.....	19
10.17	Access to Proxies.....	20
10.18	Joint Shareholders.	20
10.19	Votes to Govern.	20
10.20	Show of Hands.....	20
10.21	Ballots.	20
10.22	Electronic Voting.	21
10.23	Adjournment.....	21
SECTION ELEVEN NOTICES		21
11.01	Method of Giving Notices.	21
11.02	Proof of Service.	22
11.03	Signature to Notices.....	22
11.04	Notice to Joint Shareholders.	22
11.05	Computation of Time.....	22
11.06	Undelivered Notices.....	22
11.07	Omissions and Errors.....	23
11.08	Deceased Shareholders.....	23
11.09	Persons Entitled by Death or Operation of Law.	23
11.10	Waiver of Notice.....	23
11.11	Interpretation.....	23
11.12	Computation of Days.....	24
11.13	Electronic Documents.	24
SECTION TWELVE EFFECTIVE DATE AND REPEAL.....		24
12.01	Effective Date.....	24
12.02	Repeal.....	24

AMENDED AND RESTATED BY-LAW NO. 1

A By-Law relating generally to the conduct of the business and affairs of LUNDIN MINING CORPORATION.

SECTION ONE INTERPRETATION

1.01 Definitions. In this by-law, unless the context otherwise requires:

“Act” means the *Canada Business Corporations Act*, or any statute that may be substituted therefor, and the regulations to the Act, as from time to time amended;

“Applicable Securities Law” has the meaning set forth in Section 4.03;

“appoint” includes “elect” and vice versa;

“articles” means the Articles attached to the Certificate of Continuance of the Corporation, as from time to time amended or restated;

“board” means the board of directors of the Corporation;

“business day” means any day that is not a Saturday, Sunday or any other day that is a “holiday”, as defined in the *Legislation Act*, 2006 S.O. 2006, c. 21, Sch. F, as from time to time amended;

“by-laws” means this by-law and all other by-laws of the Corporation from time to time in force and effect and references to “these by-laws” are to all such by-laws;

“Corporation” means “LUNDIN MINING CORPORATION”;

“including” means including, without limitation;

“meeting of shareholders” includes an annual meeting of shareholders and a special meeting of shareholders;

“Nominating Shareholder” has the meaning set forth in Section 4.03;

“Notice Date” has the meaning set forth in Section 4.03;

“prescribed” means prescribed in accordance with the Act;

“public announcement” has the meaning set forth in Section 4.03; and

“recorded address” has the meaning set forth in Section 11.11.

Except as set out above, words and expressions defined in the Act, including “distributing corporation” and “electronic document” have the same meanings when used in these by-laws.

1.02 Construction. Words importing the singular number include the plural and vice versa; and words importing a person include an individual, partnership, association, body corporate, trustee, executor, administrator and legal representative.

In these by-laws, the following rules of interpretation shall apply:

- (a) all references to a meeting of shareholders shall, unless the context otherwise requires, include any meeting of only the holders of a particular class or series of shares in the Corporation that is required by the Act, the Articles or applicable law; and
- (b) the headings used are inserted for reference purposes only and are not to be considered or taken into account in construing the terms or provisions hereof or to be deemed in any way to clarify, modify or explain the effect of any such terms or provisions.

1.03 Subordination. These by-laws are subordinate to and should be read subject to the Act, the Articles and any other applicable law.

SECTION TWO BUSINESS OF THE CORPORATION

2.01 Registered Office. The registered office of the Corporation shall be in the province in Canada from time to time specified in the articles, and at such location therein initially as the board may from time to time determine.

2.02 Corporate Seal. The Corporation may, but need not, adopt a corporate seal and if one is adopted it shall be in a form approved from time to time by the board.

2.03 Financial Year. The financial year of the Corporation shall terminate on a date to be determined by the board and the board by resolution may change the financial year from time to time.

2.04 Execution of Instruments. Deeds, transfers, assignments, contracts, obligations, certificates and other instruments may be signed on behalf of the Corporation by two persons, one of whom holds the office of chair of the board, chief executive officer, president, vice-president or director and the other of whom holds one of such offices or the office of secretary, treasurer, assistant secretary or assistant treasurer or any other office created by by-law or by the board. In addition, the board or such two persons may from time to time direct the manner in which and the person or persons by whom any particular instrument or class of instruments may or shall be signed, including the use of facsimile reproductions of signatures and the use of a corporate seal or a facsimile reproduction thereof.

2.05 Execution in Counterpart, by Fax and by Electronic Signature. Subject to the Act or other applicable law:

- (a) any contracts, documents or instruments in writing required or permitted to be executed by one or more persons on behalf of the Corporation may be signed by means of electronic signature or fax;
- (b) any contracts, documents or instruments in writing required or permitted to be executed by one or more persons may be executed in separate counterparts, each of which when duly executed by one or more of such persons shall be an original

and all such counterparts together shall constitute one and the same such contract, document or instrument in writing; and

- (c) wherever a notice, document or other information is required under the Act or these by-laws to be created or provided in writing, that requirement may be satisfied by the creation and/or provision of an electronic document, including by electronic means. Subject to the Act, an electronic document includes any form of representation of information or of concepts fixed in any medium in or by electronic, optical or other similar means and that can be read or perceived by a person or by any means.

2.06 Banking Arrangements. The banking business of the Corporation, including the borrowing of money and the giving of security therefor, shall be transacted with such banks, trust companies or other bodies corporate or organizations as may from time to time be designated by or under the authority of the board. Such banking business or any part thereof shall be transacted under such agreements, instructions and delegations of powers as the board may from time to time prescribe.

2.07 Voting Rights in Other Bodies Corporate. Except when otherwise directed by the board, the signing officers of the Corporation under Section 2.04 may execute and deliver proxies and arrange for the issuance of voting certificates or other evidence of the right to exercise the voting rights attaching to any securities held by the Corporation. Such instruments shall be in favour of such persons as may be determined by the officers executing or arranging for the same. In addition, the board may from time to time direct the manner in which and the persons by whom any particular voting rights or class of voting rights may or shall be exercised.

2.08 Divisions. The board may cause the business and operations of the Corporation or any part thereof to be divided into one or more divisions upon such basis, including types of business or operations, geographical territories, product lines or goods or services, as may be considered appropriate in each case. In connection with any such division the board or, subject to any direction by the board, the chief executive officer may authorize from time to time, upon such basis as may be considered appropriate in each case:

- (a) Subdivision and Consolidation - the further division of the business and operations of any such division into sub-units and the consolidation of the business and operations of any such divisions and sub-units;
- (b) Name - the designation of any such division or sub-unit by, and the carrying on of the business and operations of, any such division or sub-unit under, a name other than the name of the Corporation; provided that the Corporation shall set out its name in legible characters in all places required by law; and
- (c) Officers the appointment of officers for any such division or sub-unit the determination of their powers and duties, and the removal of any of such officers so appointed, provided that any such officers shall not, as such, be officers of the Corporation.

SECTION THREE BORROWING AND SECURITY

3.01 Borrowing Power. Without limiting the borrowing powers of the Corporation as set forth in the Act, the board may from time to time on behalf of the Corporation, without authorization of the shareholders:

- (a) borrow money or otherwise obtain credit upon the credit of the Corporation;
- (b) limit or increase the amount to be borrowed;
- (c) issue, reissue, sell, pledge or hypothecate debt obligations of the Corporation, including without limitation, bonds, debentures, notes or other evidences of indebtedness or guarantee of the Corporation, whether secured or unsecured, for such sums, upon such terms, covenants and conditions and at such prices as may be deemed expedient;
- (d) give, directly or indirectly, financial assistance to any person by means of a loan, guarantee or otherwise to secure any present or future indebtedness or liability of any person, firm or corporation, in either limited or unlimited amount and either with or without security;
- (e) give a guarantee on behalf of the Corporation to secure performance of any present or future indebtedness, liability or obligation of any person; and
- (f) charge, mortgage, hypothecate, pledge, assign, transfer or otherwise create a security interest in all or any currently owned or subsequently acquired real or personal, movable or immovable, property of the Corporation, including tangible and intangible assets, book debts, rights, powers, franchises and undertakings, to secure any such bonds, debentures, notes or other evidences of indebtedness or guarantee or any other present or future indebtedness, liability or obligation of the Corporation.

Nothing in this Section 3.01 limits or restricts the borrowing of money by the Corporation on bills of exchange or promissory notes made, drawn, accepted or endorsed by or on behalf of the Corporation.

For clarity, the powers conferred by this Section 3.01 shall be deemed to be in supplement of and not in substitution for any powers to borrow money for the purposes of the Corporation possessed by its directors or officers independently of this Section 3.01.

3.02 Delegation. The board may from time to time delegate in writing to a director, a committee of the board, or an officer of the Corporation any or all of the powers conferred on the board by Section 3.01 to such extent and in such manner as the board may determine at the time of such delegation.

SECTION FOUR DIRECTORS

4.01 Number of Directors. Until changed in accordance with the Act, the board shall consist of not fewer than the minimum number and not more than the maximum number of

directors provided in the articles. The board shall consist of not fewer than the minimum number of directors required by the Act for a distributing corporation.

4.02 Election and Term. The election of directors shall take place at each annual meeting of shareholders and all the directors then in office shall retire but, if qualified under the Act and these by-laws, shall be eligible for re-election. The number of directors to be elected at any such meeting shall be the number of directors then in office unless the directors otherwise determine. Where the shareholders adopt an amendment to the articles to increase the number or maximum number of directors, the shareholders may, at the meeting at which they adopt the amendment, elect the additional number of directors authorized by the amendment. The election shall be by resolution. If an election of directors is not held at the proper time, the incumbent directors shall continue in office until their successors are elected.

4.03 Advance Notice for Nomination of Directors. Subject only to the Act and the articles, only individuals who are nominated in accordance with the following procedures and who, at the discretion of the board, satisfy the qualifications of a director set out in the Act and these by-laws shall be eligible for election as directors at any meeting of shareholders of the Corporation. Nominations of individuals for election to the board may be made at any annual meeting of shareholders, or at any special meeting of shareholders if one of the purposes for which the special meeting was called was the election of directors, (a) by or at the direction of the board or an authorized officer of the Corporation, including pursuant to a notice of meeting, (b) by or at the direction or request of one or more shareholders pursuant to a proposal made in accordance with the provisions of the Act or a requisition of the shareholders made in accordance with the provisions of the Act or (c) without limiting (a) or (b), by any person (a "Nominating Shareholder") (i) who, at the close of business on the date of the giving of the notice provided for below in this Section 4.03 and on the record date for notice of such meeting, is entered in the securities register as a holder of one or more shares carrying the right to vote at such meeting or who as of such dates beneficially owns shares that are entitled to be voted at such meeting, in each case on the election of directors and (ii) who complies with the notice procedures set forth below in this Section 4.03:

- (a) In addition to any other applicable requirements, for a nomination to be made by a Nominating Shareholder, the Nominating Shareholder must have given timely notice thereof in proper written form to the corporate secretary of the Corporation at the principal executive offices of the Corporation in accordance with this Section 4.03.
- (b) To be timely, a Nominating Shareholder's notice to the corporate secretary of the Corporation must be made (i) in the case of an annual meeting of shareholders, not less than 30 days prior to the date of the annual meeting of shareholders; provided, however, that in the event that the annual meeting of shareholders is called for a date that is less than 50 days after the date on which the first public announcement of the date of the annual meeting was made (each such date being the "Notice Date" for the applicable meeting of shareholders), notice by the Nominating Shareholder may be made not later than the close of business on the tenth (10th) day following the applicable Notice Date; (ii) in the case of a special meeting of shareholders (which is not also an annual meeting of shareholders) called for the purpose of electing directors (whether or not called for other

purposes), not later than the close of business on the fifteenth (15th) day following the applicable Notice Date; and (iii) in the case of a meeting of shareholders of the type contemplated by (i) or (ii) above for which notice and access is to be used for the delivery of the applicable proxy related materials and for which the Notice Date is not less than 50 days prior to the date of such meeting of shareholders, not less than 40 days prior to the date of such meeting of shareholders. Notwithstanding the foregoing, the board may, in its sole discretion, waive any requirement in this Section 4.03(b).

- (c) To be in proper written form, a Nominating Shareholder's notice to the corporate secretary of the Corporation must set forth:
- (i) as to each individual whom the Nominating Shareholder proposes to nominate for election as a director (A) the name, age, business address and residential address of the individual, (B) the principal occupation(s) or employment(s) of the individual, (C) the class or series and number of shares in the capital of the Corporation which are controlled or which are owned beneficially or of record by the individual as of the record date for the meeting of shareholders (if such date shall then have been made publicly available and shall have occurred) and as of the date of such notice, and (D) any other information relating to the individual that would be required to be disclosed in a dissident's proxy circular or other filings to be made in connection with solicitations of proxies for election of directors pursuant to the Act and Applicable Securities Laws (as defined below);
 - (ii) as to the Nominating Shareholder giving the notice (A) the identity of the Nominating Shareholder and the number of voting securities held by the Nominating Shareholder, (B) if the Nominating Shareholder is not the beneficial owner of all of those voting securities, the identity of the beneficial owner and the number of voting securities beneficially owned by that beneficial owner, (C) with respect to the Nominating Shareholder and any beneficial owner referred to in clause (A) above, the following (1) the class or series and number of shares in the capital of the Corporation which are controlled, or over which control or direction is exercised, directly or indirectly, by the Nominating Shareholder and/or beneficial owner and each person (if any) acting jointly or in concert with any of them (and for each such person, any options or other rights to acquire shares in the capital of the Corporation, any derivatives or other securities, instruments or arrangements for which the price or value or delivery, payment or settlement obligations are derived from, referenced to, or based on any such shares, and any hedging transactions, short positions and borrowing or lending arrangements relating to such shares), (2) any proxy, contract, arrangement, agreement, understanding or relationship pursuant to which such Nominating Shareholder or beneficial owner has a right to vote any shares of the Corporation on the election of directors, (3) in the case of a special meeting of shareholders called for the purpose of electing directors, a statement as to whether the Nominating Shareholder or beneficial owner intends to send an information circular and form of proxy to any shareholders of the Corporation in connection with the individual's nomination, and (4) any other information relating to such Nominating

Shareholder or beneficial owner that would be required to be disclosed in a dissident's proxy circular or other filing to be made in connection with solicitations of proxies for election of directors pursuant to the Act and Applicable Securities Laws; and

- (iii) whether, in the opinion of the Nominating Shareholder and the proposed nominee, the proposed nominee would qualify to serve as an independent director of the Corporation under sections 1.4 and 1.5 of National Instrument 52-110 *Audit Committees* of the Canadian Securities Administrators (together with any successor or supplemental instrument thereto, "NI 52-110"), and whether, with respect to the Corporation, the proposed nominee has one or more of the relationships described in sections 1.4(3), 1.4(8) or 1.5 of NI 52-110.
- (d) No individual shall be eligible for election as a director unless nominated in accordance with these by-laws; provided, however, that nothing in this Section 4.03 shall be deemed to preclude discussion by a shareholder or a proxyholder (as distinct from the nomination of directors) at a meeting of shareholders of any matter in respect of which it would have been entitled to submit a proposal pursuant to the provisions of the Act. The chair of the meeting shall have the power and duty to determine whether a nomination was made in accordance with the procedures set forth in the foregoing provisions and, if any proposed nomination is not in compliance with such foregoing provisions, to declare that such defective nomination shall be disregarded.
- (e) In addition to the provisions of this Section 4.03, a Nominating Shareholder and any individual nominated by the Nominating Shareholder shall also comply with all of the applicable requirements of the Act, Applicable Securities Laws and applicable stock exchange rules regarding the matters set forth in this Section 4.03.
- (f) For purposes of this Section 4.03, (i) "public announcement" shall mean disclosure in a press release reported by a national news service in Canada, or in a document publicly filed by the Corporation under its issuer profile on the System of Electronic Document Analysis and Retrieval ("SEDAR") at www.sedar.com; and (ii) "Applicable Securities Laws" means the applicable securities legislation of each relevant province and territory of Canada, as amended from time to time, the rules, regulations and forms made or promulgated under any such statute and the published national instruments, multilateral instruments, policies, bulletins and notices of the securities commission and similar regulatory authority of each province and territory of Canada.
- (g) Notwithstanding any other provision of these by-laws, notice given to the corporate secretary of the Corporation by a Nominating Shareholder pursuant to this Section 4.03 may only be given by personal delivery or by email (at the email address set out in the Corporation's issuer profile on SEDAR), and shall be deemed to have been given and made only at the time it is served by personal delivery to the corporate secretary at the address of the principal executive offices of the Corporation or email (at the address provided above, provided that receipt of confirmation of such transmission has been received); provided that if such delivery or electronic communication is made on a day which is a not a business

day or later than 5:00 p.m. (Toronto time) on a day which is a business day, then such delivery or electronic communication shall be deemed to have been made on the next following day that is a business day.

- (h) Notwithstanding the foregoing, the board may, in its sole discretion, waive any requirement in this Section 4.03. For clarity, nothing in this Section 4.03 shall limit the right of the directors to fill a vacancy among the directors in accordance with these by-laws.

4.04 Removal of Directors. Subject to the Act, the shareholders may by resolution passed at a meeting of shareholders specially called for such purpose remove any director from office and the vacancy created by such removal may be filled at the same meeting, failing which, subject to the Act, it may be filled by the board.

4.05 Vacation of Office. A director ceases to hold office on death, on removal from office by the shareholders, on ceasing to be qualified for election as a director under the Act, on receipt of a written resignation by the Corporation, or, if a time is specified in such resignation, at the time so specified, whichever is later. Subject to the Act, a quorum of the board may appoint an individual to fill a vacancy on the board. If there is not a quorum of directors, or if there has been a failure to elect the number or minimum number of directors required by the articles, the directors then in office shall forthwith call a special meeting of shareholders to fill the vacancy and if they fail to call a meeting or if there are no directors in office, the meeting may be called by any shareholder.

4.06 Appointment of Additional Directors. If the articles of the Corporation so provide, the directors may, within the maximum number permitted by the articles, appoint one or more additional directors, who shall hold office for a term expiring not later than the close of the next annual meeting of the shareholders.

4.07 Action by the Board. The board shall manage, or supervise the management of, the business and affairs of the Corporation. The powers of the board may be exercised at a meeting (subject to Section 4.08) at which a quorum is present or by resolution in writing signed by all the directors entitled to vote on that resolution at a meeting of the board. Where there is a vacancy in the board, the remaining directors may exercise all the powers of the board so long as a quorum remains in office.

4.08 Meeting by Telephonic or Other Electronic Facilities. Subject to the Act, if all the directors of the Corporation consent thereto generally or in respect of a particular meeting, a director may participate in a meeting of the board or of a committee of the board by means of a telephonic, electronic or other communication facility that permits all participants to communicate adequately during the meeting, and a director participating in such a meeting by such means is deemed to be present at the meeting. For clarity, a meeting of the board or a committee of the board may be held entirely by means of a telephonic, electronic or other communications facility if all directors present or participating in the meeting consent. Any such consent shall be effective whether given before or after the meeting to which it relates and may be given with respect to all meetings of the board and of committees of the board.

4.09 Place of Meetings. Subject to the articles, meetings of the board may be held at any place within or outside Canada, provided that the board may in its sole discretion determine that a meeting shall not be held at any place, but may instead be held entirely by means of a

telephonic, electronic or other communication facility pursuant to Section 4.08, if the Corporation is able to, and does, make available such a communication facility.

- 4.10 Calling of Meetings.** Meetings of the board shall be held from time to time at such time and at such place as the board, the chair of the board, the chief executive officer, the president or any two directors may determine and the Secretary shall upon direction of any of the foregoing convene a meeting of the board (and subject to the Act if all of the directors of the Corporation consent the meeting not to be held at any place but may instead be held entirely by means of a telephonic, electronic or other communication facility pursuant to Section 4.08). Except as otherwise provided by the Act and these by-laws, the directors, either as a board or as a committee thereof, may convene, adjourn and otherwise regulate their meetings as they think fit.
- 4.11 Notice of Meeting.** No notice need be given of the first meeting of the board following a meeting of shareholders at which directors are elected if such meeting of the board is held immediately after the shareholders meeting and provided a quorum of directors is present. Notice of the time and place of all other meetings of the board shall be delivered, mailed or communicated by means of telephonic, electronic or any other communications facilities to each director not less than 24 hours before the time when the meeting is to be held. A director may in any manner waive notice of or otherwise consent to a meeting of the board. A notice of a meeting of directors need not specify the purpose of or the business to be transacted at the meeting except where the Act requires such purpose or business to be specified, save that no notice of a meeting shall be necessary if all the directors are present and do not object to the holding of the meeting, or if those absent have waived notice of or have otherwise signified their consent to the holding of the meeting.
- 4.12 Adjourned Meeting.** Notice of an adjourned meeting of the board is not required if the time and place of the adjourned meeting is announced at the original meeting. The directors who formed a quorum at the original meeting are not required to form the quorum at the adjourned meeting. If there is no quorum at the adjourned meeting, the original meeting shall be deemed to have terminated forthwith after its adjournment.
- 4.13 Regular Meetings.** The board may appoint a day or days in any month or months for regular meetings of the board at a place and hour to be named. A copy of any resolution of the board fixing the place and time of such regular meetings shall be sent to each director forthwith after being passed, but no other notice shall be required for any such regular meeting except where the Act requires the purpose thereof or the business to be transacted thereat to be specified.
- 4.14 Chair.** The chair of any meeting of the board shall be the first mentioned of such of the following officers as have been appointed and who is a director and is present at the meeting: chair of the board, lead independent director (if any), chief executive officer or president. If no such officer is present, the directors present shall choose one of their number to be chair.
- 4.15 Quorum.** Subject to the articles, the quorum for the transaction of business at any meeting of the board shall be a majority of the number of directors then in office or such greater number of directors as the board may from time to time by resolution determine.

- 4.16 Votes to Govern.** At all meetings of the board every question shall be decided by a majority of the votes cast on the question. In case of an equality of votes the chair of the meeting shall not be entitled to a second or casting vote.
- 4.17 Electronic Voting.** Subject to the Act, a director participating in a meeting by a telephonic, electronic or other communication facility may vote by any reasonable means (including verbal assent) given the nature of such communication facility.
- 4.18 Conflict of Interest.** A director or officer of the Corporation shall disclose to the Corporation, in the manner and to the extent provided by the Act, any interest that such director or officer has in a material contract or transaction, whether made or proposed, with the Corporation, if such director or officer (a) is a party to the contract or transaction; (b) is a director or an officer, or an individual acting in a similar capacity, of a party to the contract or transaction; or (c) has a material interest in a party to the contract or transaction. Such a director shall not vote on any resolution to approve the same except as provided by the Act. A general notice to the board by a director or officer that he/she is a director or officer of or has a material interest in a person and is to be regarded as interested in any contract made or transaction entered into with that person is a sufficient disclosure of interest in relation to any contract or transaction so made or entered into.

If no quorum exists for the purpose of voting on a resolution only because a director is not permitted to be present at the meeting due to a conflict of interest, the remaining directors shall be deemed to constitute a quorum for the purpose of voting on the resolution. Where all of the directors are required to make a disclosure under this Section 4.18, the contract or transaction may only be approved by the shareholders.

- 4.19 Remuneration and Expenses.** The directors shall be paid such remuneration for their services as the board may from time to time determine. The directors shall also be entitled to be reimbursed for travelling and other expenses properly incurred by them in attending meetings of the board or any committee thereof. Nothing in these by-laws shall preclude any director from serving the Corporation in any other capacity and receiving remuneration therefor.
- 4.20 Transaction of Business by Signature.** A resolution in writing signed by all the directors entitled to vote on that resolution at a meeting of directors is as valid as if it had been passed at such meeting. Any such resolution may be signed in counterparts and if signed as of any date shall be deemed to have been passed on such date.

SECTION FIVE COMMITTEES

- 5.01 Committees of the Board.** The board may appoint, dissolve or reappoint one or more committees of the board, however designated, and delegate to any such committee or committees any of the powers of the board except those which pertain to items which, under the Act, a committee of the board has no authority to exercise. The board may appoint a chair of a committee or, failing such appointment, the committee shall choose one of their number to be chair.
- 5.02 Transaction of Business.** The powers of a committee of the board may be exercised by a meeting at which a quorum is present, including meetings by telephonic, electronic or other communications facility, or by resolution in writing signed by all members of such committee who would have been entitled to vote on that resolution at a meeting of the

committee. Meetings of such committee may be held at any place within or outside Canada. Unless otherwise determined by the board, the majority of the members of a committee shall constitute a quorum thereof. Questions arising at any meeting shall be determined by a majority of the votes cast on the question and, in the case of equality of votes, the chair of the meeting shall not be entitled to a second or casting vote.

- 5.03 Audit Committee.** When required by the Act, the board shall, and at any other time the board may, appoint annually from among its number an audit committee to be composed of not fewer than three directors, none of whom shall be officers or employees of the Corporation or its affiliates as may be specified by the Act and whose members must otherwise meet the requirements of applicable law and stock exchange requirements. The audit committee shall have the powers and duties provided in the Act and in other applicable law and in addition, such other powers and duties as the board may determine.
- 5.04 Advisory Bodies.** The board may from time to time appoint such advisory bodies as it may deem advisable.
- 5.05 Procedure.** Unless otherwise determined by the board, each committee and advisory body shall have power to elect its chair, to make rules for the conduct of its business and to appoint such assistants as it may deem necessary. Each committee or advisory body shall keep regular minutes of its transactions, shall cause them to be recorded in books kept for that purpose, and shall report the same to the board at such times as the board may from time to time require.

SECTION SIX OFFICERS

- 6.01 Appointment.** The board may from time to time appoint a chief executive officer, a president, one or more vice-presidents (to which title may be added words indicating seniority or function), a secretary, a treasurer and such other officers as the board may determine, including one or more assistants to any of the officers so appointed. One person may hold more than one office. The board may specify the duties of and, in accordance with these by-laws and subject to the Act, delegate to such officers powers to manage the business and affairs of the Corporation. Each of the chief executive officer and president may be a director.
- 6.02 Chair of the Board.** The board may from time to time also appoint a chair of the board who shall be a director and may also be the chief executive officer. The board may assign to the chair any of the powers and duties that are by any provisions of these by-laws assigned to the chief executive officer. The chair shall have such other powers and duties as the board may specify.
- 6.03 Chief Executive Officer.** The board may appoint a chief executive officer who, subject to the authority of the board, shall have general supervision of the business and affairs of the Corporation and such other powers and duties as the board may specify. During the absence or disability of the president, or if no president has been appointed, the chief executive officer shall also have the powers and duties and title of that office.
- 6.04 President.** The board may appoint a president and, subject to the authority of the chief executive officer, shall have such other powers and duties as the board may specify.

- 6.05 Secretary.** The secretary shall attend and be the secretary of all meetings of the board, committees of the board (unless another person is designated to act as secretary of such meeting or meetings by any such committee) and shareholders and the secretary or such other designated person in the case of meetings of any committees of the board, shall enter or cause to be entered in records kept for that purpose minutes of all proceedings thereat. The secretary shall give or cause to be given, as and when instructed, all notices to shareholders, directors, officers, auditors and members of committees of the board. The secretary shall be the custodian of the corporate seal of the Corporation and of all books, records and instruments belonging to the Corporation, except when some other officer or agent has been appointed for that purpose, and shall have such other powers and duties as otherwise may be specified by the board.
- 6.06 Treasurer.** The treasurer, if one is appointed, shall keep full and accurate accounting records in compliance with the Act and shall be responsible for the deposit of money, the safekeeping of securities and the disbursement of the funds of the Corporation. The treasurer shall render to the board whenever required an account of all transactions as treasurer and of the financial position of the Corporation and shall have such other powers and duties as otherwise may be specified.
- 6.07 Powers and Duties of Officers.** The powers and duties of all officers shall be such as the terms of their engagement call for or as the board or (except for officers whose powers and duties are to be specified only by the board) the chief executive officer may specify. The board and (except as provided above) the chief executive officer may, from time to time and subject to the provisions of the Act, vary, add to or limit the powers and duties of any officer. Any of the powers and duties of an officer to whom an assistant has been appointed may be exercised and performed by such assistant, unless the board or the chief executive officer otherwise directs.
- 6.08 Term of Office.** The board, in its discretion, may remove any officer of the Corporation. Otherwise each officer appointed by the board shall hold office until a successor is appointed or until the officer resigns.
- 6.09 Agents and Attorneys.** The Corporation, by or under the authority of the board, shall have power from time to time to appoint agents or attorneys for the Corporation in or outside Canada with such powers (including the power to sub-delegate) of management, administration or otherwise as may be thought fit.
- 6.10 Conflict of Interest.** An officer shall disclose any interest in a material contract or material transaction, whether made or proposed, with the Corporation in accordance with Section 4.18, *mutatis mutandis*, and such contract or transaction shall be subject to approval by the board.

SECTION SEVEN PROTECTION OF DIRECTORS, OFFICERS AND OTHERS

- 7.01 Limitation of Liability.** All directors and officers of the Corporation in exercising their powers and discharging their duties shall act honestly and in good faith with a view to the best interests of the Corporation and exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. Subject to the foregoing, and without limiting any defences available to a director or an officer under the Act or otherwise, no director or officer shall be liable for the acts, omissions, failures, neglects or defaults of any other director, officer or employee, or for any loss, damage or

expense happening to the Corporation through the insufficiency or deficiency of title to any property acquired for or on behalf of the Corporation, or for the insufficiency or deficiency of any security in or upon which any of the moneys of the Corporation shall be invested, or for any loss or damage arising from the bankruptcy, insolvency or tortious acts of any person with whom any of the moneys, securities or effects of the Corporation shall be deposited, or for any loss occasioned by any error of judgment or oversight on the part of such director or officer, or for any other loss, damage or misfortune which shall happen in the execution of the duties of office or in relation thereto; provided that nothing in these by-laws shall relieve any director or officer from the duty to act in accordance with the Act or from liability for any breach thereof.

7.02 Indemnity. Subject to the Act, the Corporation shall indemnify a director or an officer, a former director or officer, or another individual who acts or acted at the Corporation's request as a director or officer, or an individual acting in a similar capacity, of another entity, and their heirs and legal representatives, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by the individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of that association with the Corporation, or other entity, if such individual (a) acted honestly and in good faith with a view to the best interests of the Corporation, or, as the case may be, to the best interests of the other entity for which the individual acted as director or officer or in a similar capacity at the Corporation's request; and (b) in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, the individual had reasonable grounds for believing that the individual's conduct was lawful.

From time to time the board may determine that this Section 7.02 shall also apply to the employees of the Corporation who are not directors or officers of the Corporation or to any particular one or more or class of such employees, either generally or in respect of a particular occurrence or class of occurrences and either prospectively or retroactively. From time to time thereafter the board may also revoke, limit or vary the continued such application of this Section 7.02.

7.03 Advance of Costs. The Corporation shall advance moneys to a director, officer or other individual referred to in Section 7.02 for the costs, charges and expenses of such a proceeding referred to in Section 7.02, provided that they agree in writing, in advance, to the conditions of Section 7.02 and to repay the moneys if the individual does not fulfil such conditions.

7.04 Additional Circumstances. The Corporation shall also indemnify an individual referred to in Section 7.02 in such other circumstances as the Act or law permits or requires. Nothing in Section 7.02 shall limit the right of any person entitled to indemnity to claim indemnity apart from the provisions of these by-laws, whether by contract or otherwise, and no settlement or plea of guilty in any action or proceeding shall alone constitute evidence that a person did not meet a condition set out in clause (a) or (b) of Section 7.02 or any corresponding condition of the Act.

7.05 Insurance. Subject to the Act, the Corporation may purchase and maintain insurance for the benefit of an individual referred to in Section 7.02 hereof as the board may from time to time determine.

SECTION EIGHT SHARES

- 8.01 Allotment of Shares.** Subject to the Act and the articles, the board may from time to time reserve or grant options or rights to purchase the whole or any part of the authorized and unissued shares of the Corporation at such times and to such persons and for such consideration as the board shall determine, provided that no share shall be issued until it is fully paid as provided by the Act, and the board may delegate such authority in writing to a committee of the board.
- 8.02 Commissions.** The board may from time to time authorize the Corporation to pay a reasonable commission to any person in consideration of such person's purchasing or agreeing to purchase shares of the Corporation, whether from the Corporation or from any other person, or procuring or agreeing to procure purchasers for any such shares.
- 8.03 Registration of Transfers.** Subject to the Act, no transfer of a share shall be registered in a securities-register except: (a) upon presentation of the certificate (or, where applicable, other evidence of electronic, book-based, direct registration service or other non-certificated entry of position on the applicable register of shareholders) representing such share with an endorsement which complies with the Act made thereon or delivered therewith duly executed by an appropriate person as provided by the Act, together with such reasonable assurance that the endorsement is genuine and effective as the board may from time to time prescribe; (b) upon payment of all applicable taxes and any reasonable fees prescribed by the board, if any; (c) upon compliance with such restrictions on transfer as are authorized by the articles, if any; (d) upon satisfaction of any lien on such shares; and (e) upon compliance with and satisfaction of such other requirements as the Corporation or its transfer agent may reasonably impose.
- 8.04 Non-recognition.** Subject to the Act, the Corporation may treat the registered holder of any share as the person exclusively entitled to vote, to receive notices, to receive any dividend or other payment in respect of the share, and otherwise to exercise all the rights and powers of an owner of the share.
- 8.05 Share Certificates.** Every holder of one or more shares of the Corporation shall be entitled, at the holder's option, to a share certificate, or to a non-transferable written acknowledgement of such right to obtain a share certificate, stating the number and class or series of shares held by such holder as shown on the securities register. Subject to the Act, such certificates shall be in such form as the board may from time to time approve. Any such certificate shall be signed in accordance with Section 2.04 and Section 2.05 and need not be under the corporate seal. Notwithstanding the foregoing, unless the board otherwise determines, certificates representing shares in respect of which a transfer agent and/or registrar has been appointed shall not be valid unless countersigned by or on behalf of such transfer agent and/or registrar. The signature of one of the signing officers under Section 2.04 or, in the case of a certificate which is not valid unless countersigned by or on behalf of a transfer agent and/or registrar and in the case of a certificate which does not require a manual signature under the Act, the signatures of both signing officers under Section 2.04 may be printed or otherwise mechanically reproduced in facsimile thereon. Every such facsimile signature shall for all purposes be deemed to be the signature of the officer whose signature it reproduces and shall be binding upon the Corporation. A certificate executed as provided above shall be valid notwithstanding that one or both of

the officers whose facsimile signature appears thereon no longer holds office at the date of issue of the certificate.

- 8.06 Replacement of Share Certificates.** Subject to the Act and to the extent share certificates have been issued in respect of a particular class of shares, the board or any officer or agent designated by the board may direct in their sole discretion, the issue of a new share or other such certificate in lieu of and upon cancellation of a certificate that has become mutilated or defaced in substitution for a certificate claimed to have been lost, destroyed or wrongfully taken on payment of such fee, if any, and on such terms as to indemnity, reimbursement of expenses and evidence of loss and of title as the board may from time to time prescribe, whether generally or in any particular case, in accordance with such policies and procedures as may be adopted by the board from time to time.
- 8.07 Joint Shareholders.** If two or more persons are registered as joint holders of any share, the Corporation shall not be bound to issue more than one certificate in respect thereof, and delivery of such certificate to one of such persons shall be sufficient delivery to all of them. Any one of such persons may give effectual receipts for the certificate issued in respect thereof or for any dividend, bonus, return of capital or other money payable or warrant issuable in respect of such share.
- 8.08 Deceased Shareholders.** In the event of the death of a holder or of one of the joint holders of any share, the Corporation shall not be required to make any entry in the securities register in respect thereof or to make any dividend or other payments in respect thereof except upon production of all such documents as may be required by law and upon compliance with the reasonable requirements of the Corporation and its transfer agents.
- 8.09 Transfer Agents and Registrars.** The board may from time to time appoint one or more agents to maintain, in respect of each class of shares of the Corporation issued by it, a central securities register and one or more branch securities registers. Such a person may be designated as transfer agent or registrar according to the functions of such person and one person may be designated both registrar and transfer agent subject to any applicable stock exchange requirements. The board may at any time terminate such appointment.
- 8.10 Record Dates.** The board may, within the prescribed period, fix in advance a date as the record date for the purpose of determining the shareholders: (a) entitled to receive notice of a meeting of shareholders; (b) entitled to vote at a meeting of shareholders; (c) entitled to receive payment of a dividend; or (d) for any other purpose, and, unless waived in accordance with the Act, notice of any such record date shall be given within the prescribed period in the manner provided in the Act.

SECTION NINE DIVIDENDS AND OTHER DISTRIBUTIONS

- 9.01 Dividends and Other Distributions.** Subject to the Act and the articles, the board may from time to time declare dividends payable to the shareholders according to their respective rights and interests in the Corporation. Dividends and other distributions may be paid in money or property or by issuing fully paid shares of the Corporation.
- 9.02 Payment of Distributions.** A dividend or other distribution payable in money shall be paid by cheque or by electronic means or by such other method as the directors may determine, and will be paid to the order of each registered holder of shares of the class or series in respect of which it has been declared. Cheques will be mailed by prepaid ordinary mail to

such registered holder at such registered holder's recorded address, unless such holder otherwise directs. In the case of joint holders the payment shall, unless any applicable joint holder otherwise directs, be made payable to the order of all of such joint holders and, if applicable, be mailed to them at their recorded address, unless any applicable joint holder otherwise directs. The sending of the cheque or the sending of the payment by electronic means or other method determined by the directors as provided for above in an amount equal to the dividend or other distribution to be paid, less the amount of any tax that the Corporation is required to and does withhold shall, unless such payment is not paid on due presentation, if applicable, satisfy and discharge the liability for the payment.

- 9.03 Record Date.** The board may, within the prescribed period, fix in advance a date as the record date for the purpose of determining shareholders entitled to receive payment of a dividend and notice of the record date shall be given within the prescribed period in the manner provided by the Act, any other applicable law and the rules of any stock exchange on which the Corporation's shares are listed and in the manner provided by the Act, other applicable law and applicable stock exchange rules. If no date is so fixed, the record date for the determination of the shareholders entitled to receive payment of any dividend shall be at the close of business on the day on which the directors pass the resolution relating thereto.
- 9.04 Non-Receipt of Payment.** In the event of non-receipt of any payment by the person to whom it is sent as provided for in Section 9.02, the Corporation, or its dividend disbursement agent, shall issue to such person a re-payment for a like amount on such terms as to indemnity, reimbursement of expenses and evidence of non-receipt and of title as the Secretary may from time to time prescribe, whether generally or in any particular case, in accordance with such policies and procedures as may be adopted by the board from time to time.
- 9.05 Unclaimed Distributions.** No dividends or other distributions shall bear interest as against the Corporation. Except as otherwise expressly provided in the articles with respect to any class or series of shares, any dividend or other distribution unclaimed for one year after having been declared payable may be invested or otherwise made use of by the board for the benefit of the Corporation. Any dividend or other distribution unclaimed after a period of two years from the date on which the same has been declared to be payable shall be forfeited and shall revert to the Corporation.

SECTION TEN MEETINGS OF SHAREHOLDERS

- 10.01 Annual Meetings.** The annual meeting of shareholders shall be held for the purpose of electing directors, appointing auditors and for the transaction of such other business as may properly be brought before the meeting. The board shall place before the shareholders at every annual meeting the financial statements and reports required by the Act to be placed before the annual meeting.
- 10.02 Special Meetings.** The board shall have power to call a special meeting of shareholders to be held on such day and at such time as the board may determine. Any special meeting of shareholders may be combined with an annual meeting.
- 10.03 Place of Meetings.** Meetings of shareholders may be held at the place within Canada as the board may determine. A meeting of shareholders may be held at a place outside Canada if the place is specified in the articles or all the shareholders entitled to vote at the

meeting agree that the meeting is to be held at that place. A shareholder who attends a meeting of shareholders held outside Canada is deemed to have agreed to it being held outside Canada except when the shareholder attends the meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully held. A meeting held pursuant to Section 10.05 shall be deemed to be held at the place where the registered office of the Corporation is located.

- 10.04 Participation in Meeting by Electronic Means.** Any person entitled to attend a meeting of shareholders may participate in the meeting, in accordance with the Act and such guidelines and procedures as the board may adopt, by means of a telephonic, electronic or other communication facility that permits all participants to communicate adequately during the meeting, if the Corporation makes available such a communication facility. Any such person who, through those means, votes at the meeting or establishes a communications link to the meeting is deemed for the purposes of these by-laws to be present at the meeting.
- 10.05 Meeting held by Electronic Means.** Subject to the Act and such guidelines and procedures as the board may adopt, if the directors or the shareholders of the Corporation call a meeting of shareholders pursuant to the Act, those directors or shareholders, as the case may be, may determine that the meeting shall be held, in accordance with the Act, entirely by means of a telephonic, electronic or other communication facility that permits all participants to communicate adequately during the meeting.
- 10.06 Notice of Meetings.** Notice of the time and place (if any) of every meeting of shareholders shall be given in the manner provided in and within the period prescribed under the Act to each director, the auditor of the Corporation, and to each person who on the applicable record date for notice appears in the securities register of the Corporation as the holder of one or more shares carrying the right to vote at the meeting or as the holder of one or more shares which are otherwise entitled to receive notice of the meeting. Notice of a meeting of shareholders called for any purpose other than consideration of the financial statements and auditor's report, election of directors and reappointment of the incumbent auditor shall state the nature of such business in sufficient detail to permit the shareholder to form a reasoned judgment thereon and shall state the text of any special resolution to be submitted to the meeting.
- 10.07 List of Shareholders Entitled to Notice.** For every meeting of shareholders, the Corporation shall prepare, within the time period required by the Act, a list of shareholders entitled to receive notice of the meeting, arranged in alphabetical order and showing the number of shares held by each shareholder entitled to vote at the meeting. If a record date for notice of the meeting is fixed pursuant to Section 10.08, the shareholders listed shall be those registered at the close of business on such record date. If no record date for notice is fixed, the shareholders listed shall be those registered at the close of business on the day immediately preceding the day on which notice of the meeting is given or, where no such notice is given, on the day on which the meeting is held.
- 10.08 Record Date for Notice.** The board may, within the prescribed period, fix in advance a date as the record date for the purpose of determining the shareholders entitled to receive notice of the meeting of shareholders and notice of the record date shall be given within the prescribed period in the manner provided by the Act. If no such record date is so fixed, the record date for the determination of the shareholders entitled to receive notice of the meeting shall be at the close of business on the day immediately preceding the day on

which the notice is given or, if no notice is given, shall be the day on which the meeting is held.

10.09 Meetings Without Notice. A meeting of shareholders may be held without notice at any time and place permitted by the Act (a) if all the shareholders entitled to vote thereat are present or duly represented or if those not present or represented waive notice of or otherwise consent to such meeting being held, and (b) if the auditors and the directors are present or waive notice of or otherwise consent to such meeting being held; so long as such shareholders, auditors or directors present are not attending for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called. At such a meeting any business may be transacted which the Corporation at a meeting of shareholders may transact.

10.10 Advance Notice for Proposals. No business may be transacted at an annual meeting of shareholders, other than business that is: (a) specified in the Corporation's notice of meeting (or any supplement thereto) given by or at the direction of the board; (b) otherwise properly brought before the annual meeting by or at the direction of the board; or (c) otherwise properly brought before the annual meeting by any shareholder of the Corporation who complies with the proposal procedures set forth in this Section 10.10. For business to be properly brought before an annual meeting by a shareholder of the Corporation, such shareholder must submit a proposal to the Corporation for inclusion in the Corporation's management information circular in accordance with the requirements of these by-laws and the Act; provided that any proposal that includes nominations for the election of directors shall be submitted to the Corporation in accordance with the requirements set forth in Section 4.03. The Corporation shall set out the proposal in the management information circular or attach the proposal thereto, subject to the exemptions and bases for refusal set forth in the Act.

At a special meeting of shareholders, only such business shall be conducted as shall have been brought before the meeting pursuant to the Corporation's notice of meeting. Nominations of persons for election to the board may be made at a special meeting of shareholders at which directors are to be elected pursuant to the Corporation's notice of meeting only pursuant to and in compliance with Section 4.03.

10.11 Chair, Secretary and Scrutineers. The chair of any meeting of shareholders shall be the first mentioned of such of the following individuals who is present at the meeting and willing and able to act: chair of the board, the chief executive officer, president, a vice president who is a director or any director. If no such officer is present within 15 minutes from the time fixed for holding the meeting or declines or is unable to act, the persons present and entitled to vote shall choose one of their number to be chair. If the secretary of the Corporation is absent, the chair shall appoint some person, who need not be a shareholder, to act as secretary of the meeting. If desired, one or more scrutineers, who need not be shareholders, may be appointed by a resolution or by the chair with the consent of the meeting.

10.12 Persons Entitled to be Present. The only persons entitled to be present at a meeting of shareholders shall be those entitled to vote thereat, the directors and auditor of the Corporation and others who, although not entitled to vote, are entitled or required under any provision of the Act or the articles or by-laws to be present at the meeting. Any other person may be admitted only on the invitation of the chair of the meeting or with the consent of the meeting.

10.13 Quorum. Subject to the Act in respect of a majority shareholder, a quorum for the transaction of business at any meeting of shareholders shall be two persons together holding not less than 25% of the shares entitled to be voted at the meeting present, each being a shareholder entitled to vote thereat or a duly appointed proxyholder or representative for a shareholder so entitled. If a quorum is present at the opening of any meeting of shareholders, the shareholders present or represented may proceed with the business of the meeting notwithstanding that a quorum is not present throughout the meeting. If a quorum is not present at the opening of any meeting of shareholders, the shareholders present or represented may adjourn the meeting to a fixed time and place but may not transact any other business.

10.14 Right to Vote. The board may, within the prescribed period, fix in advance a date as the record date for the purpose of determining the shareholders entitled to vote at a meeting of shareholders and notice of the record date shall be given within the prescribed period in the manner provided by the Act. If a record date for voting is fixed, the Corporation shall prepare, within the time period required by the Act, an alphabetical list of shareholders who are entitled to vote as of the record date that shows the number of shares held by each shareholder. If no record date for voting is fixed, the Corporation shall prepare, within the time period required by the Act, an alphabetical list of shareholders who are entitled to vote as of the record date determined under the Act that shows the number of shares held by each shareholder. Each shareholder whose name appears on the list prepared as provided above is entitled to vote the shares shown opposite their name at the meeting to which the list relates.

10.15 Proxyholders and Representatives. Every shareholder entitled to vote at a meeting of shareholders may, by means of a proxy, appoint a proxyholder, or one or more alternate proxyholders, to attend and act as the shareholder's representative at the meeting in the manner and to the extent authorized and with the authority conferred by the proxy. A proxy shall be executed in writing or by electronic signature by the shareholder or the shareholder's attorney authorized in writing or by electronic signature and shall conform with the requirements of the Act.

The Corporation shall recognize any individual authorized by a resolution of the directors or governing body of a body corporate or association to represent it at a meeting of shareholders and such individual may exercise on the shareholder's behalf all the powers it could exercise if it were an individual shareholder. The authority of such an individual shall be established by depositing with the Corporation a certified copy of such resolution, or in such other manner as may be satisfactory to the secretary of the Corporation or the chair of the meeting. Any such proxyholder or representative need not be a shareholder.

10.16 Time for Deposit of Proxies. The board may specify in a notice calling a meeting of shareholders a time, preceding the time of such meeting or an adjournment thereof by not more than 48 hours, excluding days that are not business days, before which time proxies to be used at such meeting must be deposited with the Corporation or an agent thereof specified in such notice. A proxy shall be acted upon only if, prior to the time so specified, it shall have been deposited with the Corporation or such agent thereof specified in such notice or if, no such time having been specified in such notice, it has been received by the secretary of the Corporation or by the chair of the meeting or any adjournment thereof at least one (1) hour before the time for holding such meeting or any adjournment thereof. Notwithstanding any specified time limits for the deposit of proxies by shareholders, the chairperson of any meeting or the chairperson of the board may, but need not, at their

sole discretion, waive the time limits for the deposit of proxies by shareholders, including the deadline set out in the notice calling the meeting of shareholders or in any proxy circular and any such waiver made in good faith shall be final and conclusive. A proxy is valid only in respect of the meeting in respect of which it is given, including any adjournment or postponement thereof.

- 10.17 Access to Proxies.** Unless otherwise determined by the board in its sole discretion, no shareholder will be provided with access to any proxy materials relating to a meeting of shareholders prior to such meeting taking place. Upon the request of a shareholder not earlier than one business day following a meeting of shareholders, the Corporation shall provide such shareholder with access to the proxies deposited with the Corporation in connection with such meeting.
- 10.18 Joint Shareholders.** If two or more persons hold shares jointly, any one of them present or duly represented at a meeting of shareholders may, in the absence of the other or others, vote the shares; but if two or more of those persons are present or represented and vote, they shall vote as one the shares jointly held by them.
- 10.19 Votes to Govern.** At any meeting of shareholders every question shall, unless otherwise required by the articles or by-laws or by law, be determined by a majority of the votes cast on the question. In case of an equality of votes either upon a show of hands or upon a poll, the chair of the meeting shall not be entitled to a second or casting vote, whether or not the chair is a shareholder.
- 10.20 Show of Hands.** Subject to the Act, any question at a meeting of shareholders shall be decided by a show of hands, unless a ballot thereon is required or demanded as provided below. Upon a show of hands every person who is present and entitled to vote shall have one vote, subject to any provision of the Act restricting the ability of a proxyholder or alternate proxyholder to vote by way of show of hands where such person has conflicting instructions from more than one shareholder. Whenever a vote by show of hands shall have been taken upon a question, unless a ballot thereon is so required or demanded, a declaration by the chair of the meeting that the vote upon the question has been carried or carried by a particular majority or defeated and an entry to that effect in the minutes of the meeting shall be prima facie proof of the fact without proof of the number or proportion of the votes recorded in favour of or against any resolution or other proceeding in respect of such question, and the result of the vote so taken shall be the decision of the shareholders upon such question.
- 10.21 Ballots.** On any question proposed for consideration at a meeting of shareholders, and whether or not a show of hands has been taken thereon, the chair may require a ballot or any person who is present and entitled to vote on such question at the meeting may demand a ballot. A ballot so required or demanded shall be taken at such time and in such manner as the chair shall direct; however, a poll demanded on the election of the chair of the meeting or on a question of adjournment, shall be taken forthwith. A requirement or demand for a ballot may be withdrawn at any time prior to the taking of the ballot. If a ballot is taken each person present shall be entitled, in respect of the shares which such person is entitled to vote at the meeting upon the question, to that number of votes provided by the Act or the articles, and the result of the ballot so taken shall be the decision of the shareholders upon such question.

10.22 Electronic Voting. Any vote referred to in Section 10.20 or Section 10.21 may be held, subject to and in accordance with the Act, partly or entirely by means of a telephonic, electronic or other communication facility, if the Corporation makes available such a communication facility, provided that the facility enables the votes to be gathered in a manner that permits their subsequent verification.

Any person entitled to vote at a meeting of shareholders where the Corporation has made available a telephonic, electronic or other communication facility for the purposes of attending and/or voting at such meeting may vote, subject to and in accordance with the Act, by means of the telephonic, electronic or other communication facility that the Corporation has made available for that purpose.

10.23 Adjournment. The chair at a meeting of shareholders may, with the consent of the meeting and subject to such conditions as the meeting may decide, adjourn the meeting from time to time and from place to place. If a meeting of shareholders is adjourned for less than 30 days, it shall not be necessary to give notice of the adjourned meeting, other than by announcement at the earliest meeting that is adjourned. Subject to the Act, if a meeting of shareholders is adjourned by one or more adjournments for an aggregate of 30 days or more, notice of the adjourned meeting shall be given as for an original meeting.

SECTION ELEVEN NOTICES

11.01 Method of Giving Notices. Whenever under the Act, the regulations, the articles or these by-laws any notice, document or other information is required to be sent to a director, officer, auditor or member of a committee of the board, such notice may be sent either: (a) by hand delivery, through the mail, or by a nationally recognized overnight delivery service for next day delivery, in each case to such person's recorded address; or (b) by means of fax, e-mail or other form of electronic transmission.

Unless the Act or these by-laws provide otherwise, any notice, document or other information required or permitted by the Act, the regulations, the articles or these by-laws to be sent to a shareholder, may be sent by any one of the following methods: (w) by hand delivery, through the mail, or by a nationally recognized overnight delivery service for next day delivery, in each case to such shareholder's recorded address; (x) by means of fax, e-mail, or other form of electronic transmission; (y) by providing or posting the notice, document or other information on or making it available through a generally accessible electronic source and providing notice of the availability and location of the notice, document or other information to the shareholder via any of the methods specified in (w) and (x) above, including by mail, delivery, fax, e-mail or other form of electronic transmission; or (z) by any other method permitted by applicable law.

A notice to a director, officer, auditor, member of a committee of the board or to a shareholder shall be deemed to be received as follows: (i) if given by hand delivery, when actually received by the person; (ii) if sent through the mail, at the time it would be delivered in the ordinary course of mail; (iii) if sent for next day delivery by a nationally recognized overnight delivery service, when delivered to such service; (iv) if sent by fax, when sent to the fax number for such director, officer, auditor or member of a committee of the board appearing on the records of the Corporation or for a shareholder when sent to a number at which the shareholder has consented (or is deemed under applicable law

to have consented) to receive notice, and in any case evidence of delivery confirmation is received by sender's fax device; (v) if by e-mail, when sent to the e-mail address for such director, officer, auditor or member of a committee of the board appearing on the records of the Corporation or for a shareholder, when sent to an e-mail address at which the shareholder has consented (or is deemed under applicable law to have consented) to receive notice; (vi) if sent by any other form of electronic transmission, when sent to the address, location or number (as applicable) for such director, officer, auditor or member of a committee of the board appearing on the records of the Corporation or for a shareholder, when sent to the shareholder; (vii) in the case of a shareholder, if sent by posting it on or making it available through a generally accessible electronic source referred to in clause (y) above, on the day such person is sent notice of the availability and location of such notice, document or other information is deemed to have been sent to the shareholder in accordance with (i) through (vi) above; or (viii) if sent by any other method permitted by applicable law, at the time that such person is deemed to have received such notice pursuant to applicable law. If a shareholder has consented (or is deemed under applicable law to have consented) to a method for delivery of a notice, document or other information, the shareholder may revoke such shareholder's consent to receiving any notice, document or information by fax or e-mail by giving written notice of such revocation to the Corporation.

The Secretary may change or cause to be changed the recorded address of any shareholder, director, officer, auditor or member of a committee of the board in accordance with any information believed by the Secretary to be reliable.

- 11.02 Proof of Service.** A certificate of the chair of the board, the President, the Chief Executive Officer or of any other officer of the Corporation in office at the time of the making of the certificate or of a transfer officer of any transfer agent or branch transfer agent of shares of any class of the Corporation as to the facts in relation to the mailing or delivery of any notice or other document to any shareholder, director, officer or auditor or publication of any notice or other document shall be conclusive evidence thereof and shall be binding on every shareholder, director, officer or auditor of the Corporation as the case may be.
- 11.03 Signature to Notices.** The signature of any director or officer of the Corporation to any notice or document to be given by the Corporation may be signed in accordance with Section 2.04 and Section 2.05.
- 11.04 Notice to Joint Shareholders.** If two or more persons are registered as joint holders of any share, any notice may be addressed to all such joint holders, but notice addressed to one of such persons at their recorded address shall be sufficient notice to all of them.
- 11.05 Computation of Time.** In computing the date when notice must be given under any provision requiring a specified number of days' notice of any meeting or other event, the day of giving the notice shall be excluded and the day of the meeting or other event shall be included, provided that the last day of the period shall not be a day that is not a business day.
- 11.06 Undelivered Notices.** If any notice given to a shareholder pursuant to Section 11.01 is returned on two consecutive occasions because the shareholder cannot be found, the Corporation shall not be required to give any further notices to such shareholder until informed in writing by the shareholder of a new address.

- 11.07 Omissions and Errors.** The accidental omission to give any notice to any shareholder, director, officer, auditor or member of a committee of the board or the non-receipt of any notice by any such person or any error in any notice not affecting the substance thereof shall not invalidate any action taken at any meeting held pursuant to such notice or otherwise founded thereon.
- 11.08 Deceased Shareholders.** Any notice or other document delivered or sent by post or left at the address of any shareholder or sent by electronic means as the same appears in the records of the Corporation shall, notwithstanding that such shareholder be then deceased, and whether or not the Corporation has notice of such shareholder's decease, be deemed to have been duly served in respect of the shares held by such shareholder (whether held solely or with any person or persons) until some other person be entered in such shareholder's stead in the records of the Corporation as the holder or one of the holders thereof and such service shall for all purposes be deemed a sufficient service of such notice or document on such shareholders heirs, executors or administrators and on all persons, if any, interested with such shareholder in such shares.
- 11.09 Persons Entitled by Death or Operation of Law.** Every person who, by operation of law, transfer, death of a shareholder or any other means whatsoever shall become entitled to any share, shall be bound by every notice in respect of such share which shall have been duly given to the shareholder from whom such person derives title to such share prior to the name and address of such person being entered on the securities register (whether such notice was given before or after the happening of the event upon which such person became so entitled) and prior to such person furnishing to the Corporation the proof of authority or evidence of entitlement prescribed by the Act.
- 11.10 Waiver of Notice** Any shareholder, proxyholder, director, officer, auditor or member of a committee of the board, or any other person entitled to receive notice of a meeting of shareholders or any other notice from the Corporation, may at any time waive any notice, or waive or abridge the time for any notice, required to be given to such person under the Act, the articles, these by-laws or otherwise, and such waiver or abridgement, whether given before or after the meeting or other event of which notice is required to be given, shall cure any default in the giving or in the time of such notice, as the case may be. Except as otherwise provided in these by-laws (i) a waiver or abridgement (other than a waiver of notice of a meeting of shareholders or of the board or a committee of the board) shall be in writing or given by electronic signature and may be sent by electronic means in such manner or through such communication facility as the board shall have approved or in accordance with the *Electronic Commerce Act, 2000*, S.O. 2000, c. 17, as from time to time amended. A waiver of notice of a meeting of shareholders or of the board or of a committee of the board may be given in any manner consistent with these by-laws. Attendance of a director at a meeting of directors or of a shareholder or any person entitled to attend a meeting of shareholders is a waiver of notice of the applicable meeting except where such director, shareholder or other person, as the case may be, attends a meeting for the express purpose of objecting to the transaction of any business on the grounds that the meeting is not lawfully called.
- 11.11 Interpretation.** In these by-laws, "recorded address" means: in the case of a shareholder, the address as recorded in the securities register; in the case of joint shareholders, the address appearing in the securities register in respect of such joint holding or the first address so appearing if there are more than one; and in the case of a director, officer,

auditor or member of a committee of the board, the latest address as shown in the records of the Corporation.

11.12 Computation of Days. In computing any period of days or clear days under these by-laws or the Act, the period shall be deemed to commence on the day following the event that begins the period and shall be deemed to end at midnight on the last day of the period except that if the last day of the period falls on a holiday, the period shall end at midnight of the day next following that is not a holiday.

11.13 Electronic Documents. Unless otherwise specified in these by-laws, a requirement under these by-laws that a notice, document or other information be provided in writing may be satisfied by providing an electronic document and a requirement under these by-laws for a signature or that a document be executed, in relation to an electronic document, may be satisfied, in each case, if the requirements in the Act in respect thereof are met.

SECTION TWELVE EFFECTIVE DATE AND REPEAL

12.01 Effective Date. This by-law shall come into force when made by the board in accordance with the Act.

12.02 Repeal. All previous by-laws of the Corporation are repealed as of the coming into force of this by-law. Such repeal shall not affect the previous operation of any by-law so repealed, or affect the validity of any act done or right, privilege, obligation or liability acquired or incurred under, or the validity of any contract or agreement made pursuant to, or the validity of any articles (as defined in the Act) or predecessor charter documents of the Corporation obtained pursuant to, any such by-law prior to its repeal. All officers and persons acting under any by-law so repealed shall continue to act as if appointed under the provisions of this by-law and all resolutions of the shareholders or the board or a committee of the board with continuing effect passed under any repealed by-law shall continue to be good and valid except to the extent inconsistent with this by-law and until amended or repealed.

The former By-law No. 1 of the Corporation, made by the directors of the Corporation on the 15th day of May, 2003 and confirmed without variation by the shareholders of the Corporation on the 11th day of June, 2003, and subsequently amended by the directors on the 21st day of February, 2013 and confirmed without variation by the shareholders of the Corporation on the 10th day of May, 2013, is hereby replaced by this by-law.