



**Certificate
of Amendment**

**Canada Business
Corporations Act**

**Certificat
de modification**

**Loi canadienne sur
les sociétés par actions**

Sernova Corp.

396323-3

Name of corporation-Dénomination de la société

Corporation number-Numéro de la société

I hereby certify that the articles of the
above-named corporation were amended:

Je certifie que les statuts de la société
susmentionnée ont été modifiés:

a) under section 13 of the *Canada
Business Corporations Act* in
accordance with the attached notice;

a) en vertu de l'article 13 de la *Loi
canadienne sur les sociétés par
actions*, conformément à l'avis ci-joint;

b) under section 27 of the *Canada
Business Corporations Act* as set out in
the attached articles of amendment
designating a series of shares;

b) en vertu de l'article 27 de la *Loi
canadienne sur les sociétés par
actions*, tel qu'il est indiqué dans les
clauses modificatrices ci-jointes
désignant une série d'actions;

c) under section 179 of the *Canada
Business Corporations Act* as set out in
the attached articles of amendment;

c) en vertu de l'article 179 de la *Loi
canadienne sur les sociétés par
actions*, tel qu'il est indiqué dans les
clauses modificatrices ci-jointes;

d) under section 191 of the *Canada
Business Corporations Act* as set out in
the attached articles of reorganization;

d) en vertu de l'article 191 de la *Loi
canadienne sur les sociétés par
actions*, tel qu'il est indiqué dans les
clauses de réorganisation ci-jointes;

Richard G. Shaw
Director - Directeur

September 20, 2006 / le 20 septembre 2006

Date of Amendment - Date de modification



Industry Canada Industrie Canada

ELECTRONIC TRANSACTION REPORT RAPPORT DE LA TRANSACTION ÉLECTRONIQUE

Canada Business Corporations Act Loi canadienne sur les sociétés par actions

ARTICLES OF AMENDMENT (SECTIONS 27 OR 177) CLAUSES MODIFICATRICES (ARTICLES 27 OU 177)

Processing Type - Mode de traitement: E-Commerce/Commerce-É

1. Name of Corporation - Dénomination de la société PHEROMONE SCIENCES CORP.	2. Corporation No. - N° de la société 396323-3
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3. The articles of the above-named corporation are amended as follows:
Les statuts de la société mentionnée ci-dessus sont modifiés de la façon suivante:

(1) The name of the Corporation is
SERNOVA CORP.

Date	Name - Nom	Signature	Capacity of - en qualité
2006-09-18	DEVINDER RANDHAWA		DIRECTOR



Industry Canada Industrie Canada
Canada Business Loi canadienne sur les
Corporations Act sociétés par actions

FORM 4
ARTICLES OF AMENDMENT
(SECTIONS 27 OR 177)

FORMULAIRE 4
CLAUSES MODIFICATRICES
(ARTICLES 27 OU 177)

1 -- Name of the Corporation - Dénomination sociale de la société PHEROMONE SCIENCES CORP.	2 -- Corporation No. - N° de la société 396323-3
---	---

3 -- The articles of the above-named corporation are amended as follows: Les statuts de la société mentionnée ci-dessus sont modifiés de la façon suivante :

(1) The name of the Corporation is SERNOVA CORP.

Signature 	Printed Name - Nom en lettres moulées DEVINDER RANDHAWA	4 -- Capacity of - En qualité de DIRECTOR	5 -- Tel. No. - N° de tél. 1-800-647-3303
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**Certificate
of Amendment**

**Canada Business
Corporations Act**

**Certificat
de modification**

**Loi canadienne sur
les sociétés par actions**

PHEROMONE SCIENCES CORP.

396323-3

Name of corporation-Dénomination de la société

Corporation number-Numéro de la société

I hereby certify that the articles of the above-named corporation were amended:

Je certifie que les statuts de la société susmentionnée ont été modifiés:

- a) under section 13 of the *Canada Business Corporations Act* in accordance with the attached notice;
- b) under section 27 of the *Canada Business Corporations Act* as set out in the attached articles of amendment designating a series of shares;
- c) under section 179 of the *Canada Business Corporations Act* as set out in the attached articles of amendment;
- d) under section 191 of the *Canada Business Corporations Act* as set out in the attached articles of reorganization;

- a) en vertu de l'article 13 de la *Loi canadienne sur les sociétés par actions*, conformément à l'avis ci-joint;
- b) en vertu de l'article 27 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci-jointes désignant une série d'actions;
- c) en vertu de l'article 179 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses modificatrices ci-jointes;
- d) en vertu de l'article 191 de la *Loi canadienne sur les sociétés par actions*, tel qu'il est indiqué dans les clauses de réorganisation ci-jointes;

Richard G. Shaw
Director - Directeur

March 9, 2006 / le 9 mars 2006

Date of Amendment - Date de modification



Industry Canada Industrie Canada

ELECTRONIC TRANSACTION REPORT RAPPORT DE LA TRANSACTION ÉLECTRONIQUE

Canada Business Corporations Act Loi canadienne sur les sociétés par actions

ARTICLES OF AMENDMENT (SECTIONS 27 OR 177) CLAUSES MODIFICATRICES (ARTICLES 27 OU 177)

Processing Type - Mode de traitement: E-Commerce/Commerce-É

<p>1. Name of Corporation - Dénomination de la société PHEROMONE SCIENCES CORP.</p>	<p>2. Corporation No. - N° de la société 396323-3</p>
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3. The articles of the above-named corporation are amended as follows:
 Les statuts de la société mentionnée ci-dessus sont modifiés de la façon suivante:

(2) The place in Canada where the registered office is situated is the Province of British Columbia

Date 2006-02-24	Name - Nom DEVINDER RANDHAWA	Signature 	Capacity of - en qualité DIRECTOR
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Industry Canada Industrie Canada
 Canada Business Corporations Act Loi canadienne sur les sociétés par actions

FORM 4
ARTICLES OF AMENDMENT
(SECTIONS 27 OR 177)

FORMULAIRE 4
CLAUSES MODIFICATRICES
(ARTICLES 27 OU 177)

1 -- Name of the Corporation - Dénomination sociale de la société PHEROMONE SCIENCES CORP.	2 -- Corporation No. - N° de la société 3900000-1 396323-3
3 -- The articles of the above-named corporation are amended as follows: Les statuts de la société mentionnée ci-dessus sont modifiés de la façon suivante :	

(2) The place in Canada where the registered office is to be situated is the City of Vancouver, Province of British Columbia.

Signature 	Printed Name - Nom en lettres moulées DEVINDER RANDHAWA	4 -- Capacity of - En qualité de PRESIDENT	5 -- Tel. No. - N° de tél. 1-800-647-3303
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Industry Canada

Industrie Canada

**Certificate
of Amalgamation**

**Canada Business
Corporations Act**

**Certificat
de fusion**

**Loi canadienne sur
les sociétés par actions**

PHEROMONE SCIENCES CORP.

396323-3

Name of corporation-Dénomination de la société

Corporation number-Numéro de la société

I hereby certify that the above-named corporation resulted from an amalgamation, under section 185 of the *Canada Business Corporations Act*, of the corporations set out in the attached articles of amalgamation.

Je certifie que la société susmentionnée est issue d'une fusion, en vertu de l'article 185 de la *Loi canadienne sur les sociétés par actions*, des sociétés dont les dénominations apparaissent dans les statuts de fusion ci-joints.

Director - Directeur

November 1, 2001 / le 1 novembre 2001

Date of Amalgamation - Date de fusion

Canada

1 - Name of amalgamated corporation / Dénomination de la société issue de la fusion
PHEROMONE SCIENCES CORP.

2 - The place in Canada where the registered office is to be situated / Lieu au Canada où doit être situé le siège social
CITY OF TORONTO, PROVINCNE OF ONTARIO

3 - The classes and any maximum number of shares that the corporation is authorized to issue / Catégories et tout nombre maximal d'actions que la société est autorisée à émettre
AN UNLIMITED NUMBER OF COMMON SHARES WITHOUT PAR VALUE

4 - Restrictions, if any, on share transfers / Restrictions sur le transfert des actions, s'il y a lieu
NOT APPLICABLE

5 - Number (or minimum and maximum number) of directors / Nombre (ou nombre minimal et maximal) d'administrateurs
A MINIMUM OF 3 AND A MAXIMUM OF 15

6 - Restrictions, if any, on business the corporation may carry on / Limites imposées à l'activité commerciale de la société, s'il y a lieu
NOT APPLICABLE

7 - Other provisions, if any / Autres duspositions, s'il y a lieu
THE ANNEXED SCHEDULE "A" IS INCORPORATED IN THIS FORM

8 - The amalgamation has been approved pursuant to that section or subsection of the Act which is indicated as follows: / 8 - La fusion a été approuvée en accord avec l'article ou le paragraphe de la Loi indiqué ci-après.

183
 184(1)
 184(2)

9 - Name of the amalgamating corporations / Dénomination des sociétés fusionnantes	Corporation No. / N de la société	Signature	Date	Title / Titre
3927849 CANADA INC.	392784-9		OCT 26, 2001	CHIEF FINANCIAL OFFICER
PHEROMONE SCIENCES CORP.	390094-1		OCT 26, 2001	CHIEF FINANCIAL OFFICER

**SCHEDULE A TO ARTICLES OF AMALGAMATION OF
PHEROMONE SCIENCES CORP.**

- (a) The directors may, between annual meetings, appoint one or more additional directors of the Corporation to serve until the next annual meeting, but the number of additional directors so appointed shall not at any time exceed 1/3 of the number of directors elected at the previous annual meeting of the Corporation.

- (b) The Corporation through its Directors may, as it deems expedient and notwithstanding the provisions of the Civil Code (Quebec), hypothecate, mortgage or pledge any real or personal property, currently owned or subsequently acquired, of the Corporation, to secure the payment of such debentures and other securities, or to provide only a part of these guarantees for the said purposes; and it may constitute such hypothec, mortgage or pledge by trust deed or in any other manner. The Corporation may also hypothecate or mortgage the real property, or pledge or otherwise charge in any manner the personal property, of the Corporation, or provide these various kinds of guarantee, to secure the payment of loans made otherwise than by the issue of debentures, as well as the payment or performance of other debts, contracts and undertakings of the Corporation.

**RESOLUTION OF THE BOARD OF DIRECTORS OF
PHEROMONE SCIENCES CORP.
(the "Corporation")**

WHEREAS each member of the Board of Directors of Pheromone Sciences listed below have been advised that the Corporation By-Law No.2 (General By-Laws for the Corporation) Article 2.03 Financial Year – states incorrectly that the year-end for the Corporation has been established as November 30th, and this should be changed to October 31st in the By-Laws. Therefore, the year-end date will be changed retroactively to October 31st in the By-Laws of the Corporation.

RESOLVED THAT:

This requested changed in the Corporation's By-Laws as presented is approved.

DATED the 12th day of October 2004.

X

WILLIAM A. COCHRANE



CHRISTOPHER NEUMAN

William D. Milligan – accepted Oct 12,2004

WILLIAM MILLIGAN

X

G. R. (BOB) MCGREGOR

X

ANDREW E. SAXTON

X

ELDON R. SMITH

INDEX

to By-Law Number 2 of PHEROMONE SCIENCES CORP.

	Page
SECTION 1 INTERPRETATION	1
1.01 Definitions	1
1.02 Additional Definitions	2
1.03 Interpretations	2
SECTION 2 BUSINESS OF THE CORPORATION	3
2.01 Registered Office	3
2.02 Corporate Seal	3
2.03 Financial Year	3
2.04 Execution of Instruments	3
2.05 Banking Arrangements	3
2.06 Voting Rights in Other Bodies Corporate	4
2.07 Withholding Information from Shareholders	4
SECTION 3 BORROWING AND SECURITY	4
3.01 Borrowing Power	4
3.02 Delegation	5
SECTION 4 DIRECTORS	5
4.01 Number of Directors and Quorum	5
4.02 Qualification	6
4.03 Election and Term	6
4.04 Removal of Directors	7
4.05 Vacation of Office	7
4.06 Vacancies; Appointment of Additional Directors	7
4.07 Action by the Board	8
4.08 Canadian Residency	8
4.09 Meetings by Telephonic, Electronic or Other Communication Facility	8
4.10 Place of Meetings	9
4.11 Calling of Meetings	9
4.12 Notice of Meeting	9
4.13 First Meeting of New Board	10
4.14 Adjourned Meeting	10
4.15 Regular Meetings	10
4.16 Chairman	10
4.17 Votes to Govern	11
4.18 Conflict of Interest	11

4.19	Remuneration and Expenses	11
SECTION 5 COMMITTEES		12
5.01	Committee of Directors	12
5.02	Transaction of Business	12
5.03	Audit Committee	12
5.04	Advisory Committees	12
SECTION 6 OFFICERS		13
6.01	Appointment	13
6.02	Chairman of the Board	13
6.03	Vice-Chairman of the Board	13
6.04	Managing Director	14
6.05	President	14
6.06	Vice-President	14
6.07	Secretary	14
6.08	Treasurer	15
6.09	Powers and Duties of Other Officers	15
6.10	Variation of Powers and Duties	15
6.11	Term of Office	15
6.12	Terms of Employment and Remuneration	16
6.13	Conflict of Interest	16
6.14	Agents and Attorneys	16
6.15	Fidelity Bonds	16
SECTION 7 PROTECTION OF DIRECTORS, OFFICERS AND OTHERS		16
7.01	Limitation of Liability	16
7.02	Indemnity	17
7.03	Advance of Costs	18
7.04	Derivative Actions	18
7.05	Insurance	18
7.06	Legal Proceedings	18
SECTION 8 SHARES		19
8.01	Allotment	19
8.02	Commissions	19
8.03	Registration of Transfer	19
8.04	Transfer Agents and Registrars	20
8.05	Lien for Indebtedness	20
8.06	Non-Recognition of Trusts	21
8.07	Share Certificates	21
8.08	Replacement of Share Certificates	22
8.09	Joint Shareholders	22

8.10	Deceased Shareholders	22
SECTION 9 DIVIDENDS AND RIGHTS		23
9.01	Dividends	23
9.02	Dividend Cheques	23
9.03	Non-Receipt of Cheques	23
9.04	Record Date for Dividends and Rights	24
9.05	Unclaimed Dividends	24
SECTION 10 MEETINGS OF SHAREHOLDERS		24
10.01	Annual Meetings	24
10.02	Special Meetings	25
10.03	Place of Meetings	25
10.04	Notice of Meetings	25
10.05	List of Shareholders Entitled to Notice	26
10.06	Record Date for Notice	26
10.07	Meetings without Notice	27
10.08	Chairman, Secretary and Scrutineers	27
10.09	Persons Entitled to be Present	28
10.10	Quorum	28
10.11	Right to Vote; Record Date for Voting	28
10.12	Proxies	29
10.13	Time for Deposit of Proxies	29
10.14	Joint Shareholders	29
10.15	Votes to Govern	30
10.16	Show of Hands	30
10.17	Electronic Voting	30
10.18	Ballots	30
10.19	Adjournment	31
10.20	Resolution in Writing	31
10.21	Only One Shareholder	31
10.22	Notice of Record Dates	31
10.23	Availability of Shareholders Lists for Inspection	32
SECTION 11 DIVISIONS AND DEPARTMENTS		32
11.01	Creation and Consolidation of Divisions	32
11.02	Name of Division	32
11.03	Officers of Divisions	32
SECTION 12 NOTICES		33
12.01	Method of Giving Notice	33
12.02	Notice to Joint Shareholders	33
12.03	Computation of Time	34

12.04	Undelivered Notices	34
12.05	Omissions and Errors	34
12.06	Persons Entitled by Death or Operation of Law	34
12.07	Waiver of Notice	34
SECTION 13 EFFECTIVE DATE		35
13.01	Effective Date	35
13.02	Repeal	35

BY-LAW NO. 2

A by-law relating generally to the transaction of the business
and affairs of

PHEROMONE SCIENCES CORP.

BE IT ENACTED as a by-law of the Corporation as follows:

SECTION 1 INTERPRETATION

1.01 Definitions

In the by-laws of the Corporation, unless the context otherwise requires:

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

“articles” means the articles of amalgamation of the Corporation dated November 1, 2001 as from time to time amended or restated;

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

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

“Corporation” means the corporation incorporated by certificate of amalgamation under the Act and named Pheromone Sciences Corp.;

“distributing corporation” means a corporation, any of the issued securities of which are or were part of a distribution to the public and remain outstanding and are held by more than one person;

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

“non-business day” means Saturday, Sunday and any other day that is a holiday as defined in the *Interpretation Act* (Canada);

“recorded address” means in the case of a shareholder, the shareholder’s address as recorded in the securities register; and 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 of such person as recorded in the records of the Corporation;

“resident Canadian” has the meaning ascribed thereto in the Act;

“signing officer” means, in relation to any instrument, any person authorized to sign the same on behalf of the Corporation by section 2.04 or by a resolution passed pursuant thereto; and

“special meeting of shareholders” includes a special meeting of all shareholders entitled to vote at an annual meeting of shareholders and a meeting of any class or classes of shareholders entitled to vote on the question at issue.

1.02 Additional Definitions

Save as aforesaid, words and expressions defined in the Act have the same meanings when used herein.

1.03 Interpretations

Words importing the singular number include the plural and vice versa; words importing gender include the masculine, feminine and neuter genders; and words importing persons include individuals, bodies corporate, partnerships, trusts and unincorporated organizations.

**SECTION 2
BUSINESS OF THE CORPORATION**

2.01 Registered Office

Until changed in accordance with the Act, the registered office of the Corporation shall be in the Province of Ontario at such location therein as the board may from time to time determine.

2.02 Corporate Seal

Until changed by the board, the corporate seal of the Corporation, if any, shall be in the form impressed hereon.

2.03 Financial Year

Until changed by the board, the financial year of the Corporation shall end on the 30th day of ~~November~~ in each year. ^{31st} ^{AMENDED} ^{OCT/12/2004}

2.04 Execution of Instruments

Deeds, transfers, assignments, bills of sale, contracts, obligations, certificates and other instruments may be signed on behalf of the Corporation by any two directors or officers or any director together with any officer. In addition, the board 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. Any signing officer may affix the corporate seal, if any, to any instrument requiring the same.

2.05 Banking Arrangements

The banking business of the Corporation including, without limitation, 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 or authorize.

2.06 Voting Rights in Other Bodies Corporate

The signing officers of the Corporation 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, certificates or other evidence shall be in favour of such person or persons as may be determined by the officers executing such proxies or arranging for the issuance of voting certificates or such other evidence of the right to exercise such voting rights. In addition, the board may, from time to time, direct the manner in which and the person or persons by whom any particular voting rights or class of voting rights may or shall be exercised.

2.07 Withholding Information from Shareholders

Subject to the provisions of the Act, no shareholder shall be entitled to discovery of any information respecting any details or conduct of the Corporation's business which, in the opinion of the board, could be inexpedient in the interests of the shareholders or the Corporation to communicate to the public. The board may from time to time determine whether and to what extent and at what time and place and under what conditions or regulations the accounts, records and documents of the Corporation or any of them shall be open to the inspection of shareholders and no shareholder shall have any right to inspect any account, record or document of the Corporation except as conferred by the Act or authorized by the board.

SECTION 3 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:

- (a) borrow money upon the credit of the Corporation;

- (b) issue, reissue, sell, pledge or hypothecate bonds, debentures, notes or other evidence of indebtedness or guarantee of the Corporation, whether secured or unsecured;
- (c) give a guarantee on behalf of the Corporation to secure performance of an obligation of any person; and
- (d) mortgage, hypothecate, pledge or otherwise create a security interest in or charge upon all or any real or personal, movable or immovable property of the Corporation, owned or subsequently acquired, including book debts, rights, powers, franchises and undertakings by way of mortgage, hypothec, pledge or otherwise, to secure payment of any such evidence of indebtedness or guarantee whether present or future of the Corporation.

Nothing in this section 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.

3.02 Delegation

The board may from time to time by resolution delegate to one or more directors, a committee of directors or one or more officers of the Corporation as may be designated by the board all or any of the powers conferred on the board by section 3.01 or by the Act to such extent and in such manner as the board shall determine at the time of each such delegation.

SECTION 4 DIRECTORS

4.01 Number of Directors and Quorum

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. Subject to the Act and to section 4.08 hereof, the quorum for the transaction of business at any meeting of

the board shall consist of a majority of directors, or such other number of directors as the board may from time to time determine.

4.02 Qualification

A person shall not be qualified for election as a director if such person is less than 18 years of age; if such person is of unsound mind and has been so found by a court in Canada or elsewhere; if such person is not an individual; or if such person has the status of a bankrupt. A director need not be a shareholder. Any person who is elected or appointed to hold office as a director, even where otherwise qualified to be a director, shall be deemed not to be elected or appointed to hold office as a director unless:

- (a) such person was present at the meeting when the election or appointment took place and such individual did not refuse to hold office as a director; or
- (b) such person was not present at the meeting when the election or appointment took place and
 - (i) such person consented to hold office as a director in writing before the election or appointment or within ten days after it; or
 - (ii) such person has acted as a director pursuant to the election or appointment.

At least twenty-five percent (25%) of the directors shall be resident Canadians unless the Corporation has less than four directors in which case, at least one of the directors shall be a resident Canadian. For so long as the Corporation is a distributing corporation at least two directors shall not be officers or employees of the Corporation or its affiliates.

4.03 Election and Term

Directors shall be elected yearly to hold office until the close of the next annual meeting of shareholders or, in the case of directors named in the notice accompanying the articles of

incorporation, until the first meeting of shareholders. Where directors fail to be elected at any such meeting of shareholders, then notwithstanding the preceding sentence, the incumbent directors shall continue in office until their successors are elected. The number of directors to be elected at any such meeting shall be the greater of the number (or the minimum number, as the case may be) of directors provided for in the articles and the number of directors then in office unless the directors or the shareholders otherwise determine. The election shall be by resolution.

4.04 Removal of Directors

Subject to the provisions of the Act, the shareholders may by resolution passed at a special meeting remove any director from office and the vacancy created by such removal may be filled at the same meeting failing which it may be filled by the board.

4.05 Vacation of Office

A person ceases to hold the office of director of the Corporation when such person dies; such person is removed from office by the shareholders; such person ceases to be qualified for election as a director; or such person's written resignation is sent or delivered to the Corporation, or if a time is specified in such resignation, at the time so specified, whichever is later.

4.06 Vacancies; Appointment of Additional Directors

Subject to the Act, a quorum of the board may fill a vacancy in the board, except a vacancy resulting from an increase in the number or minimum number of directors or from a failure of the shareholders to elect the number or minimum number of directors. In the absence of a quorum of the board, or if the vacancy has arisen from a failure of the shareholders to elect the number or minimum number of directors, the board shall without delay call a special meeting of shareholders to fill the vacancy. If the board fails to call such meeting or if there are no such directors then in office, any shareholder may call the meeting. Any director appointed or elected to fill such vacancy holds office for the unexpired term of such director's predecessor. If the articles so provide, the directors may appoint one or more additional directors, who shall hold office until the close of the next annual meeting, but the total number of additional directors so appointed may not exceed one third of the number of directors elected at the previous annual meeting of shareholders of the Corporation.

4.07 Action by the Board

The board shall manage, or supervise the management of, the business and affairs of the Corporation. Subject to sections 4.08 and 4.09, the powers of the board may be exercised by resolution passed at a meeting at which a quorum is present or by resolution in writing signed by all the directors who would have been 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. Where the Corporation has only one director, that director may constitute the meeting.

4.08 Canadian Residency

The board shall not transact business at a meeting, other than filling a vacancy in the board, unless twenty-five percent (25%) of the directors present are resident Canadians (or, if the Corporation has fewer than four directors, at least one of the directors present is a resident Canadian), except where:

- (a) a resident Canadian director who is unable to be present approves in writing, or by telephonic, electronic or other communication facility, the business transacted at the meeting; and
- (b) the required number of resident Canadian directors would have been present had that director been present at the meeting.

4.09 Meetings by Telephonic, Electronic or Other Communication Facility

Subject to the Act, if all the directors consent, 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 persons participating in the meeting to communicate adequately with each other during the meeting, and a director participating in such a meeting by such means is deemed to be present at that meeting. 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 held while a director holds office.

4.10 Place of Meetings

Meetings of the board may be held at any place in or outside Canada.

4.11 Calling of Meetings

Meetings of the board shall be held from time to time and at such time at such place as the board, the chairman of the board, the vice-chairman of the board, the managing director, the president or any two directors may determine.

4.12 Notice of Meeting

Notice of the time and place of each meeting of the board shall be given in the manner provided in section 12.01 to each director not less than 48 hours before the time when the meeting is to be held. 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, and for any proposal to:

- (a) submit to the shareholders any question or matter requiring approval of the shareholders;
- (b) fill a vacancy among the directors or in the office of auditor or appoint additional directors;
- (c) issue securities;
- (d) declare dividends;
- (e) purchase, redeem or otherwise acquire shares of the Corporation;
- (f) pay a commission for or in connection with the purchase from the Corporation of the Corporation's shares;
- (g) approve a management proxy circular;

- (h) approve a take-over bid circular or directors' circular;
- (i) approve any annual financial statements; or
- (j) adopt, amend or repeal by-laws.

A director may in any manner waive notice of or otherwise consent to a meeting of the board. Attendance of a director at a meeting of directors is a waiver of notice of the meeting except where a director 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.

4.13 First Meeting of New Board

Provided a quorum of directors is present, each newly elected board may without notice hold its first meeting immediately following the meeting of shareholders at which such board is elected.

4.14 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.

4.15 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.

4.16 Chairman

The chairman 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: chairman of the board, vice-chairman of the board, managing director, president, or a vice-president who is a

director. If no such officer is present, the directors present shall choose one of their number to be chairman.

4.17 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 chairman of the meeting shall be entitled to a second or casting vote.

4.18 Conflict of Interest

A director or officer who is a party to, or who is a director or officer or an individual acting in a similar capacity of or has a material interest in any person who is a party to, a material contract or material transaction or proposed material contract or material transaction with the Corporation shall disclose the nature and extent of the individual's interest at the time and in the manner provided by the Act. Any contract or transaction or proposed contract or transaction in which a director or officer is interested shall be referred to the board for approval (unless the same is referred to the shareholders for approval) even if such contract is one that in the ordinary course of the Corporation's business would not require approval by the board or the shareholders, and a director interested in a contract so referred to the board shall not vote on any resolution to approve the same except as provided by the Act.

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 herein contained shall preclude any director from serving the Corporation in any other capacity and receiving remuneration therefor.

SECTION 5 COMMITTEES

5.01 Committee of Directors

The board may appoint from its members a committee of directors, however designated, and delegate to such committee any of the powers of the board except those which, under the Act, a committee of directors has no authority to exercise.

Unless otherwise determined by the board, each committee of directors shall have the power to fix its quorum, to elect its chairman and to regulate its procedure.

5.02 Transaction of Business

Subject to the provisions of section 4.09, the powers of a committee of directors may be exercised by a meeting at which a quorum of the committee is present or by resolution in writing signed by all the 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 in or outside Canada.

5.03 Audit Committee

For so long as the Corporation is a distributing corporation, the board shall elect annually from among its number an audit committee to be composed of not fewer than 3 directors of whom a majority shall not be officers or employees of the Corporation or its affiliates. The audit committee shall have the powers and duties provided in the Act.

5.04 Advisory Committees

The board may from time to time appoint such other committees as it may deem desirable, but the functions of any such other committees, in so far as such functions concern the powers of the directors that may not be delegated to any persons shall be advisory only.

SECTION 6 OFFICERS

6.01 Appointment

The board may from time to time appoint 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. The board may specify the duties of and, in accordance with this by-law and subject to the provisions of the Act, delegate to such officers powers to manage the business and affairs of the Corporation. Subject to sections 6.02 and 6.03, an officer may but need not be a director and one person may hold more than one office.

6.02 Chairman of the Board

The board may from time to time also appoint a chairman of the board who shall be a director. If appointed, the board may assign to the individual any of the powers and duties that are by any provisions of this by-law capable of being assigned to the managing director or to the president; and the individual shall, subject to the provisions of the Act, have such other powers and duties as the board may specify. During the absence or disability of the chairman of the board, the individual's duties shall be performed and the individual's powers exercised by the vice-chairman of the board, if any, or if there is no vice-chairman of the board, by the managing director, if any, or by the president.

6.03 Vice-Chairman of the Board

The board may from time to time appoint a vice-chairman of the board who shall be a director. During the absence or disability of the chairman of the board, the chairman's duties shall be performed and his powers exercised by the vice-chairman of the board. The vice-chairman of the board shall, subject to the provisions of the Act, have such other powers and duties as the board may specify.

6.04 Managing Director

The board may from time to time appoint a managing director who shall be a resident Canadian and a director. If appointed, the managing director shall be the chief executive officer and, subject to the authority of the board, shall have general supervision of the business and affairs of the Corporation; and the managing director shall, subject to the provisions of the Act, have such other powers and duties as the board may specify except for those powers of directors which under the Act the board may not delegate to a managing director. During the absence or disability of the president, or if no president has been appointed, the managing director shall also have the powers and duties of that office.

6.05 President

If appointed, the president shall be the chief operating officer, if a managing director, or chief executive officer, has been or is to be otherwise appointed, and if not, the president shall be the chief executive officer, unless the board otherwise determines. Subject to the authority of the board and any limitations the board may prescribe, if the president is the chief executive officer, the president shall have general supervision of the business of the Corporation; and the president shall have such other powers and duties as the board may specify. During the absence or disability of the managing director or if no managing director has been appointed, the president shall also have the powers and duties of that office.

6.06 Vice-President

A vice-president shall have such powers and duties as the board or the chief executive officer may specify.

6.07 Secretary

The secretary shall attend and be the secretary of all meetings of the board, shareholders and committees of the board and 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, the auditor and members of committees of the board; the secretary shall be the custodian of the stamp or mechanical device generally

used for affixing the corporate seal of the Corporation and of all books, papers, records, documents and instruments belonging to the Corporation, except when some other officer or agent has been appointed for that purpose; and the secretary shall have such other powers and duties as the board or the chief executive officer may specify.

6.08 Treasurer

In the absence of a chief financial officer, the treasurer shall keep proper 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 of the treasurer's transactions as treasurer and of the financial position of the Corporation and the treasurer shall have such other powers and duties as the board or the chief executive officer may specify.

6.09 Powers and Duties of Other Officers

The powers and duties of all other officers shall be such as the terms of their engagement call for or as the board or the chief executive officer may specify. 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.

6.10 Variation of Powers and Duties

The board 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.

6.11 Term of Office

The board, in its discretion, may remove any officer of the Corporation, without prejudice to such officer's rights under any employment contract. Otherwise, each officer appointed by the board shall hold office until the officer's successor is appointed.

6.12 Terms of Employment and Remuneration

The terms of employment and the remuneration of officers appointed by the board shall be settled by it from time to time.

6.13 Conflict of Interest

An officer shall disclose the officer's interest in any material contract or material transaction or any proposed material contract or proposed material transaction with the Corporation in accordance with section 4.18.

6.14 Agents and Attorneys

The board shall have power from time to time to appoint agents or attorneys for the Corporation in or outside Canada with such powers of management or otherwise (including the power to sub-delegate) as may be thought fit.

6.15 Fidelity Bonds

The board may require such officers, employees and agents of the Corporation as the board deems advisable to furnish bonds for the faithful discharge of their powers and duties, in such form and with such surety as the board may from time to time determine.

SECTION 7

PROTECTION OF DIRECTORS, OFFICERS AND OTHERS

7.01 Limitation of Liability

Every director and officer 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, no director or officer shall be liable for the acts, receipts, neglects or defaults of any other director or officer or employee, or for joining in any receipt or other act for conformity, 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 their part, or for any other loss, damage or misfortune whatever which shall happen in the execution of the duties of their office or in relation thereto, unless the same are occasioned by their own willful neglect or default; provided that, except as otherwise provided in the Act, nothing herein 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 limitations contained in the Act, the Corporation shall indemnify a director or 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, 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:

- (a) the individual acted honestly and in good faith with a view to the best interests of the Corporation or, as the case may be, with a view 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.

The Corporation shall also indemnify such person in such other circumstances as the Act permits or requires.

7.03 Advance of Costs

The Corporation, if authorized by the board, may advance moneys to a director, officer or other individual referred to in Section 7.02 for the costs, charges and expenses of a proceeding referred to in Section 7.02. The individual shall repay the moneys if the individual does not fulfil the conditions set out in paragraphs 7.02(a) and (b).

7.04 Derivative Actions

The Corporation may with the approval of a court authorized to give such approval by the Act, indemnify an individual referred to in Section 7.02, or advance moneys under Section 7.03, in respect of an action by or on behalf of the Corporation or other entity to procure a judgment in its favour, to which the individual is made a party because of the individual's association with the Corporation or other entity as described in Section 7.02, against all costs, charges and expenses reasonably incurred by the individual in connection with such action, if the individual fulfils the conditions set out in paragraphs 7.02(a) and (b).

7.05 Insurance

Subject to the limitations contained in the Act, the Corporation may purchase and maintain insurance for the benefit of any person referred to in section 7.02 hereof.

7.06 Legal Proceedings

The board is authorized from time to time to

- (a) retain and instruct legal counsel to commence or defend legal proceedings on behalf of the Corporation and to authorize any settlement, compromise, waiver of privilege, plea in criminal or quasi-criminal matters, proceedings or other steps whatsoever on behalf of the Corporation as they consider expedient; and

- (b) to delegate to such directors, officers or employees of the Corporation as the board may designate, all or any of the foregoing powers to such extent and in such manner as the board may determine.

SECTION 8 SHARES

8.01 Allotment

Subject to the provisions of the Act, the board and, if and as authorized by the board, a committee of the board, may from time to time grant options to purchase or allot 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 prescribed by the Act.

8.02 Commissions

The board may from time to time authorize the Corporation to pay a reasonable commission to any person in consideration of the person's purchasing or agreeing to purchase shares of the Corporation from the Corporation or from any other person, or procuring or agreeing to procure purchasers for any such shares.

8.03 Registration of Transfer

Subject to the provisions of the Act, no transfer of shares shall be registered in a securities register except:

- (a) upon presentation of the certificate representing such shares with a transfer endorsed thereon, or delivered therewith, duly executed by the registered holder or by the registered holder's attorney or successor duly appointed;
- (b) upon the provision of such reasonable assurance or evidence of signature, identification and authority to transfer, if any, as the board (or the person of persons designated by the board from time to time to make such determination)

may from time to time determine in any particular case or generally in respect of all transfers or a particular class of transfers;

- (c) where the Corporation has a duty to inquire into any adverse claims, if such duty has been discharged;
- (d) where it has been established, to the satisfaction of the board (or the person or persons designated by the board from time to time to make such determination) that the transfer is to a bona fide purchaser;
- (e) where it has not been established to the satisfaction of the board (or the person or persons designated by the board from time to time to make such determination) that the transfer is to a bona fide purchaser, the board (or the person or persons designated by the board from time to time to make such determination) is satisfied that there is no evidence that the transfer is not rightful;
- (f) upon payment of all applicable taxes and any fees prescribed by the board; and
- (g) upon compliance with such restrictions on transfer as are authorized by the articles and upon satisfaction of any lien referred to in section 8.05.

8.04 Transfer Agents and Registrars

The board may from time to time appoint a registrar to maintain the securities register and a transfer agent to maintain the register of transfers and may also appoint one or more branch registrars to maintain branch securities registers of transfers, but one person may be appointed both registrar and transfer agent. The board may at any time terminate any such appointment.

8.05 Lien for Indebtedness

If the articles provide that the Corporation shall have a lien on shares registered in the name of a shareholder indebted to the Corporation, such lien may be enforced, subject to any other provision of the articles, by the sale of the shares thereby affected or by any other action, suit,

remedy or proceeding authorized or permitted by law or by equity and, pending such enforcement, the Corporation may refuse to register a transfer of the whole or any part of such shares.

8.06 Non-Recognition of Trusts

Subject to the provisions of the Act, the Corporation shall treat the registered owner of a security as the person exclusively entitled to vote, to receive notices, to receive any interest, dividend or other payments in respect of the share, and otherwise to exercise all the rights and powers of an owner of the share.

8.07 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 acknowledgment of the holder's right to obtain a share certificate, stating the number and class or series of shares held by the holder as shown on the securities register. Share certificates and acknowledgments of a shareholder's right to a share certificate, respectively, shall be in such form as the board shall from time to time approve. Any share certificate shall be signed in accordance with section 2.04 and need not be under the corporate seal; provided that, 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 or, in the case of share certificates which are not valid unless countersigned by or on behalf of a transfer agent and/or registrar, the signatures of both signing officers, may be printed or mechanically reproduced in facsimile upon share certificates and 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 share certificate executed as aforesaid 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.

8.08 Replacement of Share Certificates

The board or any officer or agent designated by the board may in its or such person's discretion direct the issue of a new share certificate in lieu of and upon cancellation of a share certificate that has been mutilated or in substitution for a share certificate claimed to have been lost, destroyed or wrongfully taken if the owner:

- (a) so requests before the Corporation has notice that the security has been acquired by a bona fide purchaser
- (b) unless the board otherwise determines in a particular case, furnishes the Corporation with an indemnity bond sufficient, in the discretion of the board, to protect the Corporation; and
- (c) satisfies any other reasonable requisites imposed by the Corporation from time to time, whether generally or in any particular case.

8.09 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 or written acknowledgment referred to in section 8.07 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.

8.10 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 payment of any dividends thereon 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.

**SECTION 9
DIVIDENDS AND RIGHTS**

9.01 Dividends

The board may from time to time declare dividends payable to the shareholders according to their respective rights and interests in the Corporation. Dividends may be paid by issuing fully paid shares of the Corporation and, subject to the provisions of the Act, in money or property.

9.02 Dividend Cheques

A dividend payable in cash shall be paid by cheque of the Corporation, drawn on the Corporation's bankers or one of them or if the Corporation has appointed a disbursement agent, by cheque of the disbursement agent drawn on the disbursement agent's bankers or one of them (or by other means by which such agent effects such payments in the normal course of its business as a disbursement agent) to the order of each registered holder of shares of the class or series in respect of which it has been declared and mailed by prepaid ordinary mail to such registered holder at the registered holder's recorded address, unless such holder otherwise directs. In the case of joint holders the cheque shall, unless such joint holders otherwise direct, be made payable to the order of all of such joint holders and mailed to them at their recorded address. The mailing of such cheque as aforesaid, unless the same is not paid on due presentation, shall satisfy and discharge the liability for the dividend to the extent of the sum represented thereby plus the amount of any tax which the Corporation is required to and does withhold.

9.03 Non-Receipt of Cheques

In the event of non-receipt of any dividend cheque by the person to whom it is sent as aforesaid, the Corporation shall issue to such person a replacement cheque for a like amount on such terms as to indemnity, reimbursement of expenses and evidence of non-receipt and of title as the board may from time to time prescribe, whether generally or in any particular case.

9.04 Record Date for Dividends and Rights

Subject to the Act and the rules of any stock exchange on which the shares of the Corporation are listed, the board may fix in advance within the period prescribed by the Act a date as a record date for the determination of the persons entitled to receive payment of any dividend or to exercise the right to subscribe for any warrant or other evidence of right to subscribe for securities of the Corporation, provided that, unless notice of the record date is waived in writing by every holder of a share of the class or series affected whose name is set out in the securities register at the close of business on the day the directors fix the record date, the Corporation shall give notice of any such record date within the period prescribed by the Act, by newspaper advertisement in the manner provided in the Act and to each stock exchange in Canada on which the shares of the Corporation are listed. Where no record date is fixed in advance as aforesaid, the record date for the determination of the persons entitled to receive payment of any dividend or to exercise the right to subscribe for securities of the Corporation shall be at the close of business on the day on which the resolution relating to such dividend or right to subscribe is passed by the board.

9.05 Unclaimed Dividends

Subject to the Act and other applicable laws, any dividend unclaimed after a period of 6 years from the date on which the same has been declared to be payable shall be forfeited and shall revert to the Corporation.

SECTION 10 MEETINGS OF SHAREHOLDERS

10.01 Annual Meetings

The annual meeting of shareholders shall be held

- (a) not later than eighteen months after the Corporation comes into existence; and

- (b) subsequently, not later than fifteen months after holding the last preceding annual meeting but not later than six months after the end of the Corporation's preceding financial year,

for the purpose of receiving and considering the financial statements and reports required by the Act to be placed before the annual meeting, electing directors, appointing an auditor and for the transaction of such other business as may properly be brought before the meeting.

10.02 Special Meetings

The board shall have power to call a special meeting of shareholders at any time.

10.03 Place of Meetings

Meetings of shareholders, both annual and special, shall be held at the registered office of the Corporation or elsewhere in Canada as the board, or any person to whom such decision is delegated by the board, may from time to time determine. Any meeting of shareholders, either annual or special, may also be held at some place outside Canada, if the place at which such meeting is to be held is specified in the articles or if all of the shareholders entitled to vote thereat agree that the meeting is to be held at that place.

10.04 Notice of Meetings

For so long as the Corporation is a distributing corporation, notice of the time and place of each meeting of shareholders shall be given within the time period prescribed by the Act. If the Corporation is not a distributing corporation, notice of the time and place of each meeting of shareholders shall be given not less than 10 days before the date when the meeting is to be held. In either case, such notice shall be given, in the manner provided in section 12.01, to each director, to the auditor and to each shareholder who at the close of business on the record date for notice is entered in the securities register as the holder of one or more shares carrying the right to vote at or attend the meeting. Subject to the Act and any other applicable law, notice of a meeting of shareholders called for any purpose, other than receiving and considering 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. A shareholder and any other person entitled to attend a meeting of shareholders may in any manner waive notice of or otherwise consent to a meeting of shareholders.

10.05 List of Shareholders Entitled to Notice

For every meeting of shareholders, the Corporation shall prepare a list of shareholders entitled to receive notice of the meeting, arranged in alphabetical order and showing the number of shares entitled to vote at the meeting held by each shareholder. If a record date for the determination of shareholders entitled to notice of the meeting is fixed pursuant to section 10.06, the shareholders listed shall be those registered at the close of business on such record date. If no such record date 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. Such list shall be prepared, if a record date for the determination of shareholders entitled to notice of the meeting is fixed pursuant to section 10.06, no later than the tenth day following such record date and, if no such record date is fixed, on 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. Where a separate list of shareholders has not been prepared, the names of persons appearing in the securities register at the requisite time as the holder of one or more shares carrying the right to vote at such meeting shall be deemed to be a list of shareholders.

10.06 Record Date for Notice

The board may fix in advance a date, within the period prescribed by Act, as a record date for the determination of the shareholders entitled to notice of the meeting. If no record date is so fixed, the record date for the determination of the shareholders entitled to notice of the meeting shall be the close of business on the day immediately preceding the day on which the notice is given or if no notice is given, the day on which the meeting is held.

10.07 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 or to attend thereat are present in person or represented by proxy except where they attend the meeting for the express purpose of objecting that the meeting is not duly called or if those not present or represented by proxy waive notice of or otherwise consent to such meeting being held; and
- (b) if the auditor and the directors are present except where they attend the meeting for the express purpose of objecting that the meeting is not duly called or waive notice of or otherwise consent to such meeting being held.

At such a meeting any business may be transacted which the Corporation at a meeting of shareholders may transact. If the meeting is held at a place outside Canada, and such place is not specified in the Corporation's articles, shareholders not present or represented by proxy, but who have waived notice of or otherwise consented to such meeting, shall also be deemed to have consented to the meeting being held at such place.

10.08 Chairman, Secretary and Scrutineers

The chairman of any meeting of shareholders shall be the first mentioned of such of the following officers as have been appointed and who is present at the meeting and prepared to act as chairman: president, managing director, chairman of the board, vice-chairman of the board or a vice-president who is a shareholder. If none of such officers is present within 15 minutes from the time fixed for holding the meeting or none of such officers that are present is prepared to act as chairman, the persons present and entitled to vote shall choose one of their number to be chairman. If the secretary of the Corporation is absent, the chairman 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 chairman with the consent of the meeting.

10.09 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 the auditor of the Corporation and others who, although not entitled to vote, are entitled or required under any provision of the Act, the articles or by-laws of the Corporation to be present at the meeting. Any other person may be admitted only on the invitation of the chairman of the meeting or with the consent of the meeting.

10.10 Quorum

A quorum for the transaction of business at any meeting of shareholders shall be the lesser of the number of shareholders or two persons present in person, each being a shareholder or representative duly authorized in accordance with the Act entitled to vote thereat or a duly appointed proxy for a shareholder so entitled. If a quorum is present at the opening of the meeting, the shareholders present in person or by proxy may proceed with the business of the meeting even if a quorum is not present throughout the meeting.

10.11 Right to Vote; Record Date for Voting

Subject to the Act, the board may establish a record date for the determination of those shareholders entitled to vote at a meeting of shareholders of the Corporation. If the board establishes such a record date, the Corporation shall not later than the tenth day thereafter prepare a list of shareholders of the Corporation holding shares entitled to be voted at such meeting arranged in alphabetical order and showing the number of shares entitled to vote at the meeting held by each shareholder. Subject to the provisions of the Act as to authorized representatives of any other body corporate, at the meeting of shareholders in respect of which the Corporation has established a record date for the determination of those shareholders entitled to vote thereat, every person who is named in the list prepared as a consequence of the establishment of such record date shall be entitled to vote the shares shown thereon opposite such person's name. If the Corporation has not established a record date for the determination of those shareholders entitled to vote thereat, every person who is named in the list prepared in accordance with Section 10.05 shall be entitled to vote the shares shown thereon opposite such person's name.

In the absence of a list prepared as aforesaid in respect of the establishment of a record date for the determination of those shareholders entitled to vote at a meeting of shareholders, every person shall be entitled to vote at the meeting whose name appears in the securities register as the holder of one or more shares carrying the right to vote at such meeting.

10.12 Proxies

Every shareholder entitled to vote at a meeting of shareholders may appoint a proxyholder, or one or more alternate proxyholders, who need not be shareholders, to attend and act at the meeting in the manner and to the extent authorized and with the authority conferred by the proxy. Unless the Act permits the appointment of a proxy by electronic means, each proxy, to be effective, must be in writing, executed by the shareholder or the shareholder's attorney and shall conform with the requirements of the Act. If the Act permits the appointment of a proxy by electronic means, a proxy may also be appointed in any electronic manner so permitted by the Act.

10.13 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 by not more than 48 hours exclusive of non-business days, before which time proxies to be used at such meeting must be deposited. A proxy shall be acted upon only if, prior to the time so specified, it shall have been deposited with the Corporation or an agent thereof specified in such notice or, if no such time is specified in such notice, unless it has been received by the secretary of the Corporation or by the chairman of the meeting or any adjournment thereof prior to the time of voting.

10.14 Joint Shareholders

If two or more persons hold shares jointly, any one of them present in person or represented by proxy 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 in person or represented by proxy and vote, they shall vote as one on the shares jointly held by them.

10.15 Votes to Govern

At any meeting of shareholders every question shall, unless otherwise required by the articles or by-laws or by the Act, be determined by the majority of the votes cast on the question. In case of an equality of votes either upon a show of hands, a poll, or by means of a telephonic, electronic or other communication facility, the chairman of the meeting shall be entitled to a second or casting vote.

10.16 Show of Hands

Subject to the provisions of 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 hereinafter provided. Upon a show of hands every person who is present and entitled to vote shall have one vote. 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 chairman of the meeting that the vote upon the question has been carried or carried by a particular majority or not carried and an entry to that effect in the minutes of the meeting shall be prima facie evidence 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 the said question, and the result of the vote so taken shall be the decision of the shareholders upon the said question.

10.17 Electronic Voting

Despite section 10.16, any vote referred to in section 10.16 may be held, in accordance with the Act, entirely by means of telephonic, electronic or other communication facility, if the Corporation makes available such a communication facility.

10.18 Ballots

On any question proposed for consideration at a meeting of shareholders, and whether or not a show of hands has been taken thereon, any shareholder or proxyholder entitled to vote at the meeting, or the chairman of the meeting, may require or demand a ballot. A ballot so required or demanded shall be taken in such manner as the chairman shall direct. 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 the said question.

10.19 Adjournment

If a quorum is not present at the opening of a meeting of shareholders, the shareholders present may adjourn the meeting to a fixed time and place but may not transact any other business. 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. 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.

10.20 Resolution in Writing

A resolution in writing signed by all the shareholders entitled to vote on that resolution at a meeting of shareholders is as valid as if it has been passed at a meeting of the shareholders, unless a written statement with respect to the subject matter of the resolution is submitted by a director or the auditor in accordance with the Act.

10.21 Only One Shareholder

Where the Corporation has only one shareholder or only one holder of any class or series of shares, the shareholder present in person or by proxy constitutes a meeting.

10.22 Notice of Record Dates

Unless notice of the record date is waived in writing by every holder of a share of the class or series affected whose name is set out in the securities register at the close of business on the day the directors fix the record date for the purpose of determining the shareholders entitled to notice of any meeting of shareholders or to vote thereat, the Corporation shall give notice of any such record date within the period prescribed by the Act, by newspaper advertisement in the manner provided in the Act and to each stock exchange in Canada on which the shares of the Corporation are listed.

10.23 Availability of Shareholders Lists for Inspection

Any list of shareholders prepared pursuant to sections 10.05 and 10.11 shall be available for examination by any shareholder during usual business hours at the registered office of the Corporation or at the place where the securities register is maintained and at the meeting for which the list was prepared.

SECTION 11 DIVISIONS AND DEPARTMENTS

11.01 Creation and Consolidation of Divisions

The board may cause the business and operations of the Corporation or any part thereof to be divided or to be segregated into one or more divisions upon such basis, including without limitation, character or type of operation, geographical territory, product manufactured or service rendered, as the board may consider appropriate in each case. The board may also cause the business and operations of any such division to be further divided into sub-units and the business and operations of any such divisions or sub-units to be consolidated upon such basis as the board may consider appropriate in each case.

11.02 Name of Division

Any division or its sub-units may be designated by such name as the board may from time to time determine and may transact business under such name, provided that the Corporation shall set out its name in legible characters in all contracts, invoices, negotiable instruments and orders for goods or services issued or made by or on behalf of the Corporation.

11.03 Officers of Divisions

From time to time the board or, if authorized by the board, the chief executive officer, may appoint one or more officers for any division, prescribe their powers and duties and settle their terms of employment and remuneration.

The board or, if authorized by the board, the chief executive officer, may remove at its or the chief executive officer's pleasure any officer so appointed, without prejudice to such officer's

rights under any employment contract. Officers of divisions or their sub-units shall not, as such, be officers of the Corporation.

SECTION 12 NOTICES

12.01 Method of Giving Notice

Subject to the Act, any notice (which term includes any communication or document) to be given (which term includes sent, delivered or served) pursuant to the Act, the articles, the by-laws or otherwise to a shareholder, director, officer, auditor or member of a committee of the board shall be sufficiently given if delivered personally to the person to whom it is to be given or if delivered to the person's recorded address or if mailed to the person at their recorded address by prepaid ordinary or air mail or if sent to the person at their recorded address by any means of prepaid transmitted or recorded communication or if transmitted or accessed by the person in accordance with the provisions of the Act governing electronic documents. A notice so delivered shall be deemed to have been given when it is delivered personally or to the recorded address as aforesaid; a notice so mailed shall be deemed to have been given when deposited in a post office or public letter box; and a notice so sent by any means of transmitted or recorded communication shall be deemed to have been given when dispatched or delivered to the appropriate communication company or agency or its representative for dispatch and a notice so given in accordance with the provisions of the Act governing electronic documents shall be deemed to have been given in accordance with the rules contained in such provisions. 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 person to be reliable.

12.02 Notice to Joint Shareholders

If two or more persons are registered as joint holders of any share, any notice shall be addressed to all of such joint holders but notice to one of such persons shall be sufficient notice to all of them.

12.03 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 date of giving the notice and the date of the meeting or other event shall both be excluded.

12.04 Undelivered Notices

If any notice given to a shareholder pursuant to section 12.01 is returned on three consecutive occasions because the shareholder cannot be found, the Corporation shall not be required to give any further notices to such shareholder until the shareholder informs the Corporation in writing of the shareholder's new address.

12.05 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.

12.06 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 such person's title to such share prior to such person's name and address being entered on the securities register (whether such notice was given before or after the happening of the event upon which the shareholder became so entitled) and prior to the individual furnishing to the Corporation the proof of authority or evidence of the individual's entitlement prescribed by the Act.

12.07 Waiver of Notice

Any shareholder (or the shareholder's duly appointed proxyholder), director, officer, auditor or member of a committee of the board may at any time waive the sending of any notice, or waive

or abridge the time for any notice, required to be given to the individual under any provision of the Act, the regulations thereunder, the articles, the by-laws or otherwise and such waiver or abridgement shall cure any default in the giving or in the time of such notice, as the case may be. Any such waiver or abridgment shall be in writing except a waiver of notice of a meeting of shareholders or of the board which may be given in any manner.

SECTION 13
EFFECTIVE DATE

13.01 Effective Date

This by-law shall come into force when enacted by the directors, subject to the Act.

13.02 Repeal

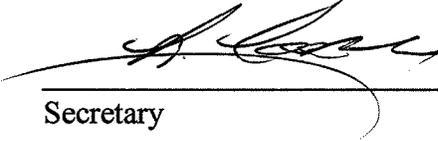
All prior by-laws, if any, of the Corporation, other than by-laws relating solely to the borrowing of money by the Corporation, are repealed as of the coming into force of this by-law. Such repeal shall not affect the previous operation of any by-law so repealed or affect the validity of any act done or right, privilege, obligation or liability acquired or incurred under, or the validity of any contract or agreement made pursuant to 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.

ENACTED by the Board the 10th day of April, 2002.

WITNESS the corporate seal of the Corporation.



President



Secretary

c/s

CONFIRMED by the shareholders the 10th day of April, 2002.



Secretary

c/s