PYROGENESIS CANADA INC.

(the "**Corporation**")

and

CST TRUST COMPANY

(the "**Trustee**")

DEBENTURE INDENTURE

Dated as of March 30, 2015

PROVIDING FOR THE ISSUE OF CONVERTIBLE UNSECURED SUBORDINATED DEBENTURES

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THIS INDENTURE made as of the 30th day of March, 2015.

BETWEEN:

PYROGENESIS CANADA INC., a corporation existing under the federal laws of Canada.

(the "**Corporation**")

AND

CST TRUST COMPANY, a trust company existing under the federal laws of Canada.

(the "**Trustee**")

WHEREAS:

A. The Corporation deems it advisable for its business and investment purposes to create and issue the Debentures (as defined herein);

B. The Corporation is duly authorized to create and issue the Debentures as herein provided;

C. When certified by the Trustee and issued as provided in this Indenture (as defined herein), all necessary resolutions of the directors of the Corporation having been duly passed and other proceedings taken and conditions complied with to make the creation and issue of the Debentures legal, valid and binding obligations of the Corporation with the benefits and subject to the terms of this Indenture; and

D. The foregoing recitals are made as representations and statements of fact by the Corporation and not by the Trustee.

THE PARTIES to this Indenture therefore agree:

ARTICLE 1
DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Indenture and in the Debentures, unless there is something in the subject matter or context inconsistent therewith, the expressions following shall have the following meanings, namely:

(a) "**Affiliate**" has the meaning defined in the *Securities Act* (Québec);

(b) "**Applicable Securities Legislation**" means applicable securities laws in those Provinces of Canada in which Debentures are sold;

(c) "**Associate**" has the meaning defined in the *Securities Act* (Québec);

(d) "**Auditors of the Corporation**" means an independent firm of chartered accountants duly appointed as auditors of the Corporation;

(e) "**Business Day**" means any day of the year, other than a Saturday, Sunday or any day on which the Trustee is closed for business in Toronto, Ontario or Montreal, Québec;

(f) "**Common Share**" means the common shares of the Corporation;

(g) "**Conversion Price**" means $0.80 per Common Share;

(h) "**Corporation**" means Pyrogenesis Canada Inc. and includes any successor to and assignee of the Corporation that shall have complied with the provisions of Section Article 10;

(i) "**Counsel**" means a barrister or solicitor or firm of barristers or solicitors retained or employed by the Trustee or retained or employed by the Corporation or the Debentureholders and acceptable to the Trustee, acting reasonably;

(j) "**Current Market Price**" for any date means the Market Price of the Common Shares on the TSXV as defined in the TSXV Company Manual, from time to time;

(k) "**Date of Conversion**" has the meaning ascribed thereto in Section 3.3(b) "**Debentureholders**" or "**Holders**" means the Persons from time to time entered in the register for Debentures as registered holders of the Debentures;

(l) "**Debentures**" means the unsecured subordinated debentures of the Corporation issued and certified under this Indenture, or deemed to be issued and certified under this Indenture, and for the time being outstanding, whether in definitive or interim form;

(m) "**Debenture Liabilities**" means the indebtedness, liabilities and obligations of the Corporation under Debentures issued under this Indenture of any series, including on account of principal, interest or otherwise but excluding the issuance of Common Shares upon any conversion of Debentures pursuant to Article 3, upon any redemption of Debentures other than the Convertible Debentures pursuant to Article 4, or at maturity in respect of Debentures other than the Convertible Debentures pursuant to Section 2.2(e);

(n) "**Default**" means any condition, circumstance, event or fact which with the giving of notice or the lapse of time would constitute an Event of Default;

(o) "**Designated Office**" means the principal trust office of the Trustee in Montreal, Québec (or any other office in such other city or cities as may from time to time be designated by the Trustee and approved by the Debentureholders by Extraordinary Resolution);

(p) "**director**" means a director of the Corporation for the time being and reference to action by the directors means action by the directors of the Corporation as a board;

(q) "**Event of Default**" has the meaning ascribed thereto in Section 8.1;

(r) "**Extraordinary Resolution**" has the meaning ascribed thereto in Section 11.12, as modified, if applicable by Section 11.15;

(s) "**First Closing Date**" means March 30, 2015, being the date on which Debentures are first issued pursuant to this Indenture;

(t) "**Final Closing Date**" means the last date on which Debentures are issued pursuant to this Indenture;

(u) "**Freely Tradeable**" means, in respect of any Common Shares or any other securities of the Corporation or any other person, as the case may be, which securities (i) may be issued without the necessity of filing a prospectus or any other similar offering document (other than such prospectus or similar offering document that has already been filed) under Applicable Securities Legislation and such issue does not constitute a distribution (other than a distribution already qualified by prospectus or similar offering document or that is otherwise exempt from prospectus requirements) under Applicable Securities Legislation; and (ii) can be traded by the holder thereof without any restriction under Applicable Securities Legislation, such as hold periods, except in the case of a control distribution (as defined in the Applicable Securities Legislation); provided, however, that it is agreed and understood that any U.S. Common Shares shall be "restricted securities", as defined in Rule 144(a)(3) under the U.S. Securities Act, and shall bear the U.S. Legend;

(v) "**Government Obligations**" means securities issued or guaranteed by the Government of Canada or any province thereof;

(w) "**Governmental Entity**" means any domestic, foreign or international government, executive, parliament, legislature or local authority, or any domestic, foreign or international governmental entity, ministry, department or agency or regulatory authority, court, tribunal, body, commission or board, or any political subdivision of any thereof or any authority having jurisdiction therein or any quasi governmental or private body exercising any regulatory, expropriation or taxing authority under or for the account of any of the above;

(x) "**IFRS**" means international financial reporting standards;

(y) **"Indebtedness"** of any person means, without duplication, (a) any obligation of such person in respect of borrowed money or a monetary obligation of such person which is evidenced by a note, bond, debenture or other similar instrument (provided that if any such obligation in respect of borrowed money or monetary obligation evidenced by a note, bond, debenture or similar instrument may be, in all circumstances including for greater certainty at the option of the obligor thereof, completely satisfied by such obligor otherwise than by the payment of cash, such obligation shall not be included as Indebtedness to the extent that such obligation would be classified as equity in accordance with IFRS), (b) the deferred purchase price of assets or services that in accordance with IFRS would be classified as a

liability on the balance sheet of such person, (c) any transfer with recourse or with an obligation to repurchase, to the extent of the liability of such person with respect thereto, (d) the face amount of all banker's acceptances issued by such person, (e) the face amount of all letters of credit issued for the account of such person and, without duplication, all drafts drawn thereunder, (f) all capitalized leases, (g) all payment obligations of such person under interest rate swap, cap or collar agreements, interest rate future or option contracts, currency swap agreements, currency future or option contracts, and other similar agreements, (h) all payment obligations of such person under commodity future contracts and other similar agreements and (i) without duplication, all guarantee of any of the foregoing by such person; provided that Indebtedness shall not include (A) trade payables and other accrued current liabilities, in each case arising in the ordinary course of business in accordance with customary trade terms, all determined in accordance with IFRS or (B) inter-company indebtedness or other obligations among the Corporation and its Subsidiaries.

(z) "**Interest Obligation**" means the obligation of the Corporation to pay interest on the Debentures, as and when the same becomes due;

(aa) "**Interest Payment Date**" has the meaning ascribed thereto in Section 2.2(a);

(bb) "**Interest Period**" has the meaning ascribed thereto in Section2.2(a);

(cc) "**Interest Rate**" has the meaning ascribed thereto in Section 2.2(a);

(dd) "**Lien**" means (i) any mortgage, charge, pledge, hypothecation, security interest, assignment by way of security, encumbrance, lien (statutory or otherwise), hire purchase agreement, conditional sale agreement, deposit arrangement, title retention agreement or arrangement, or any other assignment, arrangement or condition that in substance secures payment or performance of an obligation, (ii) any trust arrangement, (iii) any arrangement which creates a right of set-off out of the ordinary course of business, or (iv) any agreement to grant any such rights or interests;

(ee) "**Market Price**" has the meaning ascribed to such term in the TSXV Company Manual.

(ff) "**Maturity Date**" has the meaning ascribed thereto in Section 2.2(a);

(gg) "**Officer's Certificate**" means a certificate of the Corporation signed by an officer of the Corporation, in his or her capacity as an officer of the Corporation and not in his personal capacity;

(hh) "**Person**" includes a natural person, partnership, limited partnership, limited liability partnership, corporation, limited liability corporation, unlimited liability company, joint stock company, trust, joint venture, unincorporated association, government or any agency or political subdivision thereof;

(ii) "**Redemption Notice**" has the meaning ascribed thereto in Section 2.2(e);

(jj) "**Redemption Payment Date**" has the meaning ascribed thereto in Section 2.2(e);

(kk) "**Redemption Price**" has the meaning ascribed thereto in Section 2.2(e);

(ll) "**Senior Creditor**" means a holder or holders of Senior Indebtedness and includes any agent or agent's representative or representatives or trustee or trustees of any such holder or holders;

(mm) "**Senior Indebtedness**" means the principal of and premium, if any, and interest on and other amounts in respect of all Indebtedness of the Corporation (whether outstanding as at the date hereof or thereafter incurred), other than (i) Indebtedness evidenced by any Debentures and (ii) all other existing and future Indebtedness of the Corporation which, by the terms of the instrument creating or evidencing such Indebtedness, is expressed to be pari passu with, or subordinate in right of payment to, the Debentures or other Indebtedness ranking pari passu with the Debentures;

(nn) "**Senior Security**" means all mortgages, hypothecs, liens, pledges, charges (whether fixed or floating), security interests or other encumbrances of any kind, contingent or absolute, held by or on behalf of any Senior Creditor and in any manner securing any Senior Indebtedness;

(oo) "**Subsidiary**" in relation to the Corporation has, in respect of a body corporate, the meaning ascribed thereto in the *Canada Business Corporations Act*, as amended from time to time, and, in relation to any Person other than a body corporate, is to be interpreted as if such Person were a body corporate for the purposes of the *Canada Business Corporations Act*;

(pp) "**this Indenture**", "**this Trust Indenture**", "**hereto**", "**herein**", "**hereby**", "**hereunder**", "**hereof**" and similar expressions refer to this Trust Indenture and not to any particular Section or other portion hereof and include any and every instrument supplemental or ancillary hereto;

(qq) "**Time of Expiry**" has the meaning ascribed thereto in Section 2.2(g);

(rr) "**Trustee**" means CST Trust Company, and includes any successor or successors or any other trustee subsequently appointed pursuant to Section 11.11; and

(ss) "**VWAP**" means the volume-weighted average trading price of the Common Shares for the applicable period (which must be calculated utilizing days in which the Common Shares actually trade). The VWAP shall be determined by dividing the aggregate sale price of all Common Shares sold on the applicable exchange or market, as the case may be, over the applicable period by the total number of Common Shares so sold;

(tt) "**Written Direction of the Corporation**" means an instrument in writing signed by any one officer or director of the Corporation.

1.2 Meaning of Outstanding

Every Debenture certified and delivered by the Trustee hereunder shall be deemed to be outstanding until it is cancelled, redeemed or delivered to the Trustee for cancellation or redemption or until moneys for the payment thereof shall have been set aside under Section 7.1, provided that:

(a) Debentures which have been partially redeemed shall be deemed to be outstanding only to the extent of the unredeemed part of the principal amount thereof;

(b) when a new Debenture has been issued in substitution for a Debenture which has been lost, stolen or destroyed, only the new Debenture shall be counted for the purpose of determining the aggregate principal amount of Debentures outstanding; and

(c) for the purposes of any provision of this Indenture entitling Holders to vote, to sign consents, requisitions or other instruments or to take any other action under this Indenture, or to constitute a quorum of any meeting of Debentureholders, Debentures owned directly or indirectly, legally or equitably, by the Corporation or a Subsidiary or an Affiliate of the Corporation shall be disregarded except that:

(i) for the purpose of determining whether the Trustee shall be protected in relying on any such vote, consent, requisition or other instrument or action, or on the Holders present or represented at any meeting of Debentureholders, only the Debentures which the Trustee, after reasonable inquiry based on an Officer's Certificate as to the ownership of Debentures owned directly or indirectly, legally or equitably, by the Corporation or a Subsidiary or an Affiliate of the Corporation, knows are so owned shall be so disregarded; and

(ii) Debentures so owned which have been pledged in good faith other than to the Corporation or a Subsidiary of the Corporation shall not be so disregarded if the pledgee shall establish to the satisfaction of the Trustee the pledgee's right to vote such Debentures, sign consents, requisitions or other instruments or take such other actions in his discretion free from the control of the Corporation or a Subsidiary or an Affiliate of the Corporation.

1.3 Interpretation

In this Indenture:

(a) words importing the singular number or masculine gender shall include the plural number or the feminine or neuter genders, and vice versa;

(b) all references to Sections and Schedules refer, unless otherwise specified, to Sections and schedules of this Indenture; and

(c) words and terms denoting inclusiveness (such as "include" or "includes" or "including"), whether or not so stated, are not limited by and do not imply limitation of their context or the words or phrases which precede or succeed them.

1.4 Headings, etc.

The division of this Indenture into Sections and the insertion of headings are for convenience of reference only and shall not affect the construction or interpretation of this Indenture or of the Debentures.

1.5 Day not a Business Day

In the event that any day on or before which any action required to be taken hereunder is not a Business Day, then such action shall be required to be taken on or before the requisite time on the next succeeding day that is a Business Day.

1.6 Applicable Law

This Indenture and the Debentures shall be construed in accordance with the laws of the Province of Québec and the laws of Canada applicable therein and shall be treated in all respects as Québec contracts.

1.7 Monetary References

Whenever any amounts of money are referred to herein, such amounts shall be deemed to be in lawful money of Canada unless otherwise expressed.

1.8 Invalidity, etc.

Any provision hereof which is prohibited or unenforceable shall be ineffective only to the extent of such prohibition or unenforceability, without invalidating the remaining provisions hereof.

1.9 Time of Essence

Time shall be of the essence of this Indenture.

1.10 Successors and Assigns

All covenants and agreements in this Indenture by the Corporation shall bind its successors and assigns, whether expressed or not.

1.11 All Payments Net of Taxes

Any and all payments to be made pursuant to this Indenture of or on account of principal of and interest on the Debentures or of any other amount, whether paid or payable in money or property, shall be made subject to the deduction of any and all applicable taxes or withholdings required to be made or paid thereon by the Corporation.

1.12 Benefits of Indenture

Nothing in this Indenture or in the Debentures, express or implied, shall give to any Person, other than the parties hereto and their successors hereunder, any paying agent, the Holders (and each such Person who becomes a Holder) and the directors any benefit or any legal or equitable right, remedy or claim under this Indenture.

1.13 Schedules

The following Schedule form part of this Indenture:

Schedule A - Form of Debenture

ARTICLE 2
THE DEBENTURES

2.1 Limit of Debentures

The aggregate principal amount of Debentures authorized to be issued under this Indenture is limited to $4,000,000, and the Debentures may be issued only upon and subject to the conditions and limitations herein set forth.

2.2 Form and Term of Debentures

(a) Each Debenture shall be dated as of the date of issue, shall mature on the date that is three years from the date of issue (the "**Maturity Date**").

(b) The Debentures shall accrue simple interest from the date of issue at the rate of 7.5% per annum (the "**Interest Rate**"). Interest shall be payable quarterly after as well as before maturity, default and judgement until paid in full and with interest on the amounts in default at the Interest Rate. Interest shall be calculated in accordance with Section 2.6 hereof. Subject to Section 2.2 (e), accrued interest shall be payable in quarterly payments in arrears on June 30, September 30, December 30 and March 30 in each year computed on the basis of 365-day year. The first such payment will fall due on June 30, 2015 notwithstanding the date of issuance, occurring on March 30, 2015 (representing interest from and including the applicable date of issue up to and including June 30, 2015) until the earlier of (i) the Maturity Date; (ii) Conversion and (iii) a Redemption Payment Date (each such payment due date, excluding the Maturity Date and a Redemption Payment Date, is an "**Interest Payment Date**"; each period during which interest accrues is an "**Interest Period**"). For greater certainty, it is understood and agreed that Debentures may be issued subsequent to March 30, 2015. Any Debentures issued subsequent to March 30, 2015 will have as their first Interest Payment Date the first Interest Payment Date following the date on which such Debentures were issued.

(c) The Debentures and the Common Shares issuable upon conversion of the Debentures, if issued at a date within 4 months and one day after the distribution date, as the case may be, shall be subject to the legend restriction notation set out

in Section 2.5(2)3(i) of NI 45-102, substantially in the following form (and with the necessary information inserted):

"UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THIS SECURITY MUST NOT TRADE THE SECURITY BEFORE THE DATE THAT IS FOUR MONTHS AND ONE DAY FOLLOWING MARCH 30, 2015".

(d) in the case of Common Shares issuable upon conversion of the Convertible Debentures issued at a date within 4 months after the after the distribution date, the language of the legend shall be supplemented by the following notation:

"THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE LISTED ON THE TSX VENTURE EXCHANGE ("**TSXV**"); HOWEVER, THE SAID SECURITIES CANNOT BE TRADED THROUGH THE FACILITIES OF TSXV SINCE THEY ARE NOT FREELY TRANSFERABLE AND CONSEQUENTLY ANY CERTIFICATE REPRESENTING SUCH SECURITIES IS NOT "GOOD DELIVERY" IN SETTLEMENT OF TRANSACTIONS ON TSXV"

(e) The Corporation may, at any time prior to the Maturity Date, issue a written notice to all of the Holders of the Corporation's intention to redeem the Debentures of such Holders, in whole or in part and on a pro-rata basis, prior to the Maturity Date (the "**Redemption Notice**"). The principal amount of such Holder's Debentures to be redeemed plus: (i) the accrued but unpaid interest thereon; and (ii) any interest to be accrued (but not yet accrued as of the Redemption Date) thereon up until the Maturity Date (the "**Redemption Price**"), will be paid to the Holder on a date that is the earlier of a date within 10 Business Days from the date of the receipt by the Holders of the Redemption Notice and the Maturity Date (the "**Redemption Payment Date**"). In the event that the average Market Price of the Common Shares over the course of the 20 trading days immediately preceding the date of the Redemption Notice is greater than or equal to $1.20, then the Redemption Price shall be calculated as comprising (i) the entirety of the Principal Amount and (ii) any interest accrued thereon as of the Redemption Date only. In the event that an Interest Payment Date falls within the period starting on the date of the receipt by the Holders of a Redemption Notice and ending on a Redemption Payment Date, such Interest Payment Date will be deemed to fall instead on the Redemption Payment Date for the applicable Debentures.

(f) The Debentures will be subordinated to the Senior Indebtedness of the Corporation in accordance with the provisions of Article Article 6 of the Indenture. The Debentures will, in accordance with Section 2.7, rank pari passu with each other debenture issued under this Indenture or under indentures supplemental to this Indenture (regardless of their actual date or terms of issue) and, except as prescribed by law, with all other present and future subordinated indebtedness and unsecured indebtedness of the Corporation, other than Senior Indebtedness;

(g) Upon and subject to the provisions and conditions of Article 3 of the Indenture, the holder of each Debenture shall have the "right" at such holder's option, at any time prior to the close of business on the earlier of (i) the Maturity Date and (ii) the last

Business Day immediately preceding the Redemption Date specified by the Corporation for redemption of the Debentures by notice to the holders of Debentures in accordance with Sections 2.2(e) of this Indenture (the earlier of which will be the "**Time of Expiry**" for the purposes of Article Article 3 of the Indenture in respect of the Debentures), to convert the whole or, in the case of a Debenture of a denomination in excess of $1,000, any part which is $1,000 or an integral multiple thereof, of the principal amount of such Debenture into Common Shares at the Conversion Price in respect of the Debentures in effect on the Date of Conversion. Notwithstanding the foregoing, no Debentures may be converted during the ten Business Days preceding June 30, September 30, December 30 and March 30 in each year;

The conversion price for each Common Share to be issued upon the conversion of Debentures shall be equal to $0.80 per Common Share (the "**Conversion Price**"), such that approximately 1250 Common Shares shall be issued for each $1,000 principal amount of Debentures so converted, subject to the terms of Section 3.4. No adjustment will be made for dividends or distributions payable on Common Shares issuable upon conversion or for interest accrued on Debentures surrendered for conversion. However, holders converting their Debentures will receive, as the case may be, interest that has accrued but not been paid from the most recently completed Interest Payment Date to and including the effective Date of Conversion.

(h) The Debentures shall be issued in denominations of $1,000 and integral multiples of $1,000 and the Trustee is hereby appointed as registrar and transfer agent for the Debentures. Each Debenture and the certificate of the Trustee endorsed thereon shall be issued in substantially the form set out in Schedule A, with such insertions, omissions, substitutions or other variations as shall be required or permitted by this Indenture and may have imprinted or otherwise reproduced thereon such legend or legends or endorsements, not inconsistent with the provisions of this Indenture, as may be required to comply with Applicable Securities Legislation or with any rules or regulations of any securities exchange on which the Corporation's securities may be listed, all as may be determined by the director(s) or officer(s) of the Corporation executing such Debenture in accordance with Section 2.3 hereof, as conclusively evidenced by their execution of a Debenture. Each Debenture shall additionally bear such distinguishing letters and numbers as the Trustee shall approve. Notwithstanding the foregoing, the Debenture may be in such other form or forms as may, from time to time, be approved by a resolution of the directors or as specified in an Officer's Certificate. The Debentures may be engraved, lithographed, printed, mimeographed or typewritten or partly in one form and partly in another.

2.3 Execution of Debentures

All Debentures shall be signed (either manually or by facsimile signature) by any authorized director or officer of the Corporation holding office at the time of signing. A facsimile signature upon a Debenture shall for all purposes of this Indenture be deemed to be the signature of the Person whose signature it purports to be. Notwithstanding that any Person whose signature, either manual or in facsimile, appears on a Debenture as a director or officer may no longer hold such office at the date of the Debenture or at the date of the certification and delivery thereof, such

Debenture shall be valid and binding upon the Corporation and entitled to the benefits of this Indenture.

2.4 Certification

(a) No Debenture shall be issued or, if issued, shall be obligatory or shall entitle the holder thereof to the benefits of this Indenture, until it has been manually certified by or on behalf of the Trustee substantially in the form set out in this Indenture. Such certification on any Debenture shall be conclusive evidence that such Debenture is duly issued, is a valid obligation of the Corporation and the Holder is entitled to the benefits hereof.

(b) The certificate of the Trustee signed on the Debentures shall not be construed as a representation or warranty by the Trustee as to the validity of this Indenture or of the Debentures or as to the issuance of the Debentures and the Trustee shall in no respect be liable or answerable for the use made of the Debentures or any of them or the proceeds thereof. The certificate of the Trustee signed on the Debentures shall, however, be a representation and warranty by the Trustee that the Debentures have been duly certified by or on behalf of the Trustee pursuant to the provisions of this Indenture.

2.5 Mutilation, Loss, Theft or Destruction

In case any of the Debentures issued hereunder shall become mutilated or be lost, stolen or destroyed, the Corporation, in its discretion, may issue, and thereupon the Trustee shall certify and deliver, a new Debenture upon surrender and cancellation of the mutilated Debenture, or in the case of a lost, stolen or destroyed Debenture, in lieu of and in substitution for the same, and the substituted Debenture shall be in substantially the form set out in Schedule A (or as otherwise provided in Section 2.2(h)) and shall be entitled to the benefits of this Indenture and rank equally in accordance with its terms with all other Debentures issued or to be issued hereunder. In case of loss, theft or destruction, the applicant for a substituted Debenture shall furnish to the Corporation and to the Trustee such evidence of the loss, theft or destruction of the Debenture as shall be satisfactory to them in their discretion and shall also furnish a surety bond and an indemnity satisfactory to them in their discretion. The applicant shall pay all reasonable expenses incidental to the issuance of any substituted Debenture.

2.6 Concerning Interest

(a) All Debentures issued hereunder shall bear interest at the Interest Rate from and including the date of issue or from and including the first day following the last Interest Payment Date to which interest shall have been paid or made available for payment on the outstanding Debentures, whichever shall be the later, to and including the relevant Interest Payment Date.

(b) Interest payable to a Holder will be calculated based on the principal amount of such Holder's Debentures at the close of business on the last day of the Interest Period (subject to Section 5.5) and the actual number of days elapsed in such Interest Period, on the basis of a year of 365 days.

(c) A Holder who acquires Debentures during an Interest Period by way of a transfer will be deemed to have held such Debentures for that portion of the Interest Period that elapsed prior to the applicable transfer, for the purposes of calculating interest under this Indenture.

2.7 Debentures to Rank Pari Passu

The Debentures will be direct unsecured obligations of the Corporation. All Debentures issued hereunder will rank pari passu with each other (regardless of their actual date of issue).

2.8 Payments of Amounts Due on Interest Payment Dates

The Trustee shall calculate the amount required to pay the interest due upon the next Interest Payment Date and shall provide the calculations supporting such amount to the Corporation not less than eight Business Days before such Interest Payment Date. Except as may otherwise be provided in any supplemental indenture and except as otherwise provided in this Indenture, payments of an amount sufficient to pay the amount due upon an Interest Payment Date in respect of the Debentures will be deposited with the Trustee on or before 11:00 a.m. (Montreal time) four Business Days preceding the Interest Payment Date. The Corporation may elect to satisfy this requirement by providing the Trustee with a certified cheque for such amounts required under this Section 2.8 or by an electronic funds transfer of such sums of money. Such deposit or transfer will satisfy and discharge the liability of the Corporation for the interest payments to which the deposit or making available of funds relates to the extent of the amount deposited or made available. Three Business Days prior to the Interest Payment Date, the Trustee, on behalf of the Corporation will mail to the Holders, by first class mail, a cheque for the amount of accrued and unpaid interest owing to such Holder (less the amount of any tax deducted or withheld in accordance with Section 2.10).

2.9 Payments of Amounts Due on the Maturity Date or a Redemption Payment Date

(a) The Trustee shall calculate the amount required to pay the interest due upon the Maturity Date or a Redemption Payment Date and shall provide the calculations supporting such amount to the Corporation on the eighth Business Day before such Maturity Date or Redemption Payment Date. Except as may otherwise be provided in any supplemental indenture and except as otherwise provided in this Indenture, payments of an amount sufficient to pay the amount due on the Maturity Date or a Redemption Payment Date in respect of the Debentures will be deposited with the Trustee on or before 11:00 a.m. (Toronto time) four Business Days preceding the Maturity Date or a Redemption Payment Date, as applicable, for Debentures outstanding on the Maturity Date or a Redemption Payment Date, as applicable. The Corporation may elect to satisfy this requirement by providing the Trustee with a certified cheque for such amounts required under this Section 2.9 or by an electronic funds transfer of such sums of money. Such deposit or transfer will satisfy and discharge the liability of the Corporation for the payment of the principal and interest on the Debentures to which the deposit or making available of funds relates to the extent of the amount deposited or made available and such Debentures will thereafter to that extent not be considered as outstanding under this Indenture and any Holder of such Debentures will have no other right in regard thereto other than to receive out of the money deposited or made available the amount to which

he or she is entitled. Upon the later of (a) the surrender of a Holder's Debentures and (b) the Maturity Date or the Redemption Payment Date, as applicable, the Trustee, on behalf of the Corporation will mail to eligible Holders, by first class mail, a cheque for the principal amount of such Holder's Debentures, plus accrued and unpaid interest thereon (less the amount of any tax deducted or withheld in accordance with Section 2.10).

(b) The Trustee shall be entitled to rely on the Corporation to confirm the correctness of all calculations of principal and interest referred to in Sections 2.8 and 2.9(a).

2.10 Withholding Tax

The Trustee on behalf of the Corporation will be entitled to deduct and withhold any applicable taxes or similar charges (including interest, penalties or similar amounts in respect thereof) imposed or levied by or on behalf of the Canadian government or of any province or territory thereof or any authority or agency therein or thereof having power to tax, including pursuant to the Income Tax Act (Canada), from any payment to be made on or in connection with the Debentures and, provided that the Trustee forthwith remits such withheld amount to such government, authority or agency and files all required forms in respect thereof and, at the same time, provides copies of such remittance and filing to the Corporation and/or the relevant Debentureholder, as applicable, the amount of any such deduction or withholding will be considered an amount paid in satisfaction of the Corporation's obligations under the Debentures and there is no obligation on the Corporation to gross-up amounts paid to a Holder in respect of such deductions or withholdings. The Trustee shall provide the Corporation and/or the relevant Debentureholder, as applicable, with copies of receipts or other communications relating to the remittance of such withheld amount or the filing of such forms received from such government, authority or agency promptly after receipt thereof.

ARTICLE 3
CONVERSION OF DEBENTURES

3.1 Applicability of Article

Any Debentures issued hereunder will be convertible into Common Shares at the Conversion Price at any time prior to Maturity and shall have been expressed in this Indenture and in an Officer's Certificate authorizing or providing for the issue thereof.

Such right of conversion shall extend only to the maximum number of whole Common Shares into which the aggregate principal amount of the Debenture or Debentures surrendered for conversion at any one time by the holder thereof may be converted. Fractional interests in Common Shares shall be satisfied by cash payment equal to the price of any fractional interest.

3.2 Revival of Right to Convert

If the redemption of any Debenture called for redemption by the Corporation is not made or the payment of the purchase price of any Debenture which has been tendered in acceptance of an offer by the Corporation to purchase Debentures for cancellation is not made, in the case of a redemption upon due surrender of such Debenture or in the case of a purchase on the date on which such purchase is required to be made, as the case may be, then, provided the Time of Expiry has not

passed, the right to convert such Debentures shall revive and continue as if such Debenture had not been called for redemption or tendered in acceptance of the Corporation's offer, respectively.

3.3 Manner of Exercise of Right to Convert

(a) The holder of a Debenture desiring to convert such Debenture in whole or in part into Common Shares shall surrender such Debenture to the Trustee at its principal office of the Trustee in Montreal, Québec and at the branch office in Toronto, Ontario together with the notice of conversion in the form attached hereto as Schedule C duly executed by the holder or his executors or administrators or other legal representatives or his or their attorney duly appointed by an instrument in writing in form and executed in a manner satisfactory to the Trustee, exercising his right to convert such Debenture in accordance with the provisions of this Article Article 3. Thereupon such Debentureholder or, subject to payment of all applicable stamp or security transfer taxes or other governmental charges and compliance with all reasonable requirements of the Trustee, his nominee(s) or assignee(s) shall be entitled to be entered in the books of the Corporation as at the Business Day immediately after the Date of Conversion (as defined in Section 3.3(b) as the holder of the number of Common Shares into which such Debenture is convertible in accordance with the provisions of this Article Article 3 and, as soon as practicable thereafter, the Corporation shall (i) deliver to such Debentureholder or, subject as aforesaid, his nominee(s) or assignee(s), a certificate or certificates for such Common Shares and (ii) make or cause to be made any payment of interest to which such holder is entitled in accordance with Section 3.3(e) hereof or in respect of fractional Common Shares as provided in Section 3.4.

(b) For the purposes of this Article, a Debenture shall be deemed to be surrendered for conversion on the date on which it is so surrendered when the register of the Trustee is open and in accordance with the provisions of this Article Article 3 and in the case of a Debenture so surrendered by post or other means of transmission, on the date on which it is received by the Trustee at one of its offices specified in Section 3.3(b); provided that if a Debenture is surrendered for conversion on a day on which the register of Common Shares is closed the person or persons entitled to receive Common Shares shall become the holder or holders of record of such Common Shares as at the date on which such register is next reopened (in each case, the "**Date of Conversion**").

(c) Any part, being $1,000 or an integral multiple thereof, of a Debenture in a denomination in excess of $1,000 may be converted as provided in this Article Article 3 and all references in this Indenture to conversion of Debentures shall be deemed to include conversion of such part.

(d) Upon a holder of any Debenture exercising the right of conversion in respect of only a part of the Debenture and surrendering such Debenture to the Trustee, in accordance with Section 3.3(a) the Trustee shall cancel the same and shall without charge forthwith certify and deliver to the holder a new Debenture or Debentures in an aggregate principal amount equal to the unconverted part of the principal amount of the Debenture so surrendered.

(e) The holder of a Debenture surrendered for conversion in accordance with this Section 3.3 shall be entitled to receive, as the case may be, accrued and unpaid interest in respect thereof from and including the most recently completed Interest Payment Date to, and excluding, the Date of Conversion. The Common Shares issued upon such conversion shall rank only in respect of distributions or dividends declared in favour of shareholders of record on and after the Business Day immediately after the Date of Conversion or such later date as such holder shall become the holder of record of such Common Shares pursuant to Section 3.3(b), from which applicable date such Common Shares will for all purposes be and be deemed to be issued and outstanding as fully paid and non-assessable Common Shares.

(f) In the event of a conversion of Debentures into Freely Tradable Common Shares where the holder is subject to withholding taxes, the Trustee, on a Written Direction of the Corporation but for the account of the holder, shall sell, or cause to be sold through the investment banks, brokers or dealers selected by the Corporation, out of the Freely Tradable Common Shares issued by the Corporation for this purpose, such number of Freely Tradable Common Shares that together with any cash payment in lieu of fractional Common Shares, if any, is sufficient to yield net proceeds (after payment of all costs) to cover the amount of taxes required to be withheld, and shall remit same on behalf of the Corporation to the proper tax authorities within the period of time prescribed for this purpose under applicable laws.

3.4 No Requirement to Issue Fractional Common Shares

The Corporation shall not be required to issue fractional Common Shares upon the conversion of Debentures pursuant to this Article Article 3. If more than one Debenture shall be surrendered for conversion at one time by the same holder, the number of whole Common Shares issuable upon conversion thereof shall be computed on the basis of the aggregate principal amount of such Debentures to be converted. If any fractional interest in a Common Share would, except for the provisions of this Section 3.4, be deliverable upon the conversion of any principal amount of Debentures, the Corporation shall, in lieu of delivering any certificate representing such fractional interest, make a cash payment to the holder of such Debenture of an amount equal to the fractional interest which would have been issuable multiplied by the Current Market Price on the Date of Conversion of such fractional interest (less applicable withholding taxes, if any).

3.5 Corporation to Reserve Common Shares

The Corporation covenants with the Trustee that it will at all times reserve and keep available out of its authorized Common Shares, solely for the purpose of issue upon conversion of Debentures as provided in this Article Article 3, and conditionally allot to Debentureholders who may exercise their conversion rights hereunder, such number of Common Shares as shall then be issuable upon the conversion of all outstanding Debentures. The Corporation covenants with the Trustee that all Common Shares which shall be so issuable shall be duly and validly issued as fully-paid and non-assessable.

3.6 Cancellation of Converted Debentures

Subject to the provisions of Section 3.3 as to Debentures converted in part, all Debentures converted in whole or in part under the provisions of this Article Article 3 shall be forthwith delivered to and cancelled by the Trustee and no Debenture shall be issued in substitution therefor.

3.7 Protection of Trustee

Subject to Section 13.3, the Trustee:

(a) shall not be accountable with respect to the validity or value (or the kind or amount) of any Common Shares or other securities or property which may at any time be issued or delivered upon the conversion of any Debenture; and

(b) shall not be responsible for any failure of the Corporation to make any cash payment or to issue, transfer or deliver Common Shares or Common Share certificates upon the surrender of any Debenture for the purpose of conversion, or to comply with any of the covenants contained in this Article Article 3.

3.8 Payment of Cash in Lieu of Common Shares

Upon conversion, the Corporation may offer and the converting holder may agree to the delivery of cash for all or a portion of the Debentures surrendered in lieu of Common Shares.

ARTICLE 4
SECURITY

4.1 Lack of Security

The Debentures shall not be secured against any of the assets of the Corporation.

ARTICLE 5
REGISTRATION, EXCHANGE AND OWNERSHIP

5.1 Fully Registered Debentures

The Trustee shall cause to be kept by and at the Designated Office, a register in which shall be entered the names and addresses of the Holders and particulars of the Debentures held by them respectively shall be noted in such register.

5.2 No Notice of Trusts

Neither the Corporation nor the Trustee nor any registrar shall be bound to take notice of or see to the execution of any trust (other than that created by this Indenture) whether express, implied or constructive, in respect of any Debenture.

5.3 Registers Open for Inspection

The register referred to in Section 5.1 shall at all reasonable times during regular business hours be open for inspection by the Corporation or any Debentureholder. The Trustee shall from time to

time when requested to do so by the Corporation in writing, furnish the Corporation with a list of names and addresses of Holders entered on the register kept by them and showing the principal amount and serial numbers of the Debentures held by each such Holder provided the Trustee shall be entitled to charge a reasonable fee to provide such a list.

5.4 Exchanges and Transfers of Debentures

(a) Subject to Section 5.5, Debentures in any authorized form or denomination may be exchanged for Debentures in any other authorized form or denomination bearing the same interest rate and of the same aggregate principal amount as the Debentures so exchanged.

(b) Subject to Section 5.5, Debentures in any authorized form or denomination may be transferred to another Person or Persons, provided that the Holder delivers a duly completed and executed Transfer Form attached as Exhibit 1 to the Debenture.

(c) In respect of exchanges of Debentures permitted by Section 5.4(a) and the transfers of Debentures permitted by Section 5.4(b), Debentures may be exchanged or transferred only at the Designated Office. Any Debentures tendered for exchange or transfer shall be surrendered to the Trustee. The Corporation shall execute and the Trustee shall certify all Debentures necessary to carry out exchanges or transfers as aforesaid. All Debentures surrendered for exchange or transfer shall be cancelled.

5.5 Closing of Registers

Neither the Corporation nor the Trustee shall be required to:

(a) register transfers or make exchanges of Debentures on any Interest Payment Date or on the Maturity Date or during the period from the close of business on the 10th Business Day preceding an Interest Payment Date or the Maturity Date to and including such respective date; or

(b) register transfers or make exchanges of any Debentures subject to a Redemption Notice.

5.6 Charges for Exchange

For each Debenture exchanged the Trustee, except as otherwise herein provided, may make a reasonable charge for its services and in addition may charge a reasonable sum for each new Debenture issued (such amounts to be agreed upon by the Trustee and the Corporation from time to time), and payment of such charges and reimbursement of the Trustee for any stamp taxes or governmental or other charges required to be paid shall be made by the party requesting such exchange as a condition precedent thereto. Notwithstanding the foregoing provisions, no charge shall be made to a Debentureholder hereunder for any exchange of any Debenture applied for within a period of three months from the date of the first delivery of Debentures.

5.7 Ownership of Debentures

(a) Unless otherwise required by law, the Person in whose name any registered Debenture is registered shall for all the purposes of this Indenture be and be deemed to be the owner thereof and payment of or on account of the principal on such Debenture and, interest thereon shall be made to such Holder.

(b) The Holder for the time being of any Debenture shall be entitled to the principal and/or interest evidenced by such instrument, free from all equities or rights of set-off or counterclaim between the Corporation and the original or any intermediate holder thereof and all Persons may act accordingly and the receipt by any such Holder for any such principal or interest shall be a good discharge to the Corporation and/or the Trustee for the same and neither the Corporation nor the Trustee shall be bound to inquire into the title of any such Holder.

(c) Where Debentures are registered in more than one name, the principal and interest from time to time payable in respect thereof may be paid to the order of all such Holders, failing written instructions from them to the contrary, and the receipt of any one of such Holders therefor shall be a valid discharge, to the Trustee, any registrar and to the Corporation.

(d) In the case of the death of one or more joint Holders of any Debenture the principal and interest from time to time payable thereon may be paid to the order of the survivor or survivors of such Holders and the receipt of any such survivor or survivors therefor shall be a valid discharge to the Trustee and any registrar and to the Corporation.

ARTICLE 6
SUBORDINATION OF DEBENTURES

6.1 Applicability of Article

The Debenture Liabilities shall be subordinated and postponed and subject in right of payment, to the extent and in the manner hereinafter set forth in the following Sections of this Article Article 6 and in Section 2.2(f), to the prior full and final payment of all existing and future Senior Indebtedness of the Corporation and each holder of any such Debenture by his acceptance thereof, whether directly or on its behalf, agrees to and shall be bound by the provisions of this Article Article 6.

6.2 Order of Payment

Upon any distribution of the assets of the Corporation upon any dissolution, winding up, total liquidation or reorganization of the Corporation (whether in bankruptcy, insolvency or receivership proceedings, or upon an "assignment for the benefit of creditors" or any other marshalling of the assets and liabilities of the Corporation, or otherwise):

(a) all Senior Indebtedness shall first be paid indefeasibly in full, or provision made for such payment, in cash before any payment is made on account of the principal of or interest on the indebtedness evidenced by the Debentures;

(b) any payment or distribution of assets of the Corporation, whether in cash, property or securities, to which the holders of the Debentures or the Trustee on behalf of such holders would be entitled except for the provisions of this Article Article 6 shall be paid or delivered by the trustee in bankruptcy, receiver, assignee for the benefit of creditors, or other liquidating agent making such payment or distribution, directly to the holders of such Senior Indebtedness or their representative or representatives, or to the trustee or trustees under any indenture pursuant to which any instruments evidencing any of such Senior Indebtedness may have been issued, to the extent necessary to pay all Senior Indebtedness in full after giving effect to any concurrent payment or distribution, or provision therefor, to the holders of such Senior Indebtedness; and

(c) the Senior Creditors or a receiver or a receiver-manager of the Corporation or of all or part of its assets or any other enforcement agent may sell, mortgage, or otherwise dispose of the Corporation assets in whole or in part, free and clear of all Debenture Liabilities and without the approval of the Debentureholders or the Trustee or any requirement to account to the Trustee or the Debentureholders.

The rights and priority of the Senior Indebtedness and the subordination pursuant hereto shall not be affected by:

(a) whether or not the Senior Indebtedness is secured;

(b) the time, sequence or order of creating, granting, executing, delivering of, or registering, perfecting or failing to register or perfect any security notice, caveat, financing statement or other notice in respect of the Senior Security;

(c) the time or order of the attachment, perfection or crystallization of any security constituted by the Senior Security;

(d) the taking of any collection, enforcement or realization proceedings pursuant to the Senior Security;

(e) the date of obtaining of any judgment or order of any bankruptcy court or any court administering bankruptcy, insolvency or similar proceedings as to the entitlement of the Senior Creditors, or any of them or the Debentureholders or any of them to any money or property of the Corporation;

(f) the failure to exercise any power or remedy reserved to the Senior Creditors under the Senior Security or to insist upon a strict compliance with any terms thereof;

(g) whether any Senior Security is now perfected, hereafter ceases to be perfected, is avoidable by any trustee in bankruptcy or like official or is otherwise set aside, invalidated or lapses;

(h) the date of giving or failing to give notice to or making demand upon the Corporation;

(i) any amendment, modification, increase, extension, renewal, replacement of any Senior Indebtedness or Senior Security; or

(j) any other matter whatsoever.

6.3 Subrogation to Rights of Holders of Senior Indebtedness

Subject to the payment in full of all Senior Indebtedness, the holders of the Debentures shall be subrogated to the rights of the holders of Senior Indebtedness to receive payments or distributions of assets of the Corporation to the extent of the application thereto of such payments or other assets which would have been received by the holders of the Debentures but for the provisions hereof until the principal of and interest on the Debentures shall be paid in full, and no such payments or distributions to the holders of the Debentures of cash, property or securities, which otherwise would be payable or distributable to the holders of the Senior Indebtedness, shall, as between the Corporation, its creditors other than the holders of Senior Indebtedness, and the holders of Debentures, be deemed to be a payment by the Corporation to the holders of the Senior Indebtedness or on account of the Senior Indebtedness, it being understood that the provisions of this Article Article 6 are and are intended solely for the purpose of defining the relative rights of the holders of the Debentures, on the one hand, and the holders of Senior Indebtedness, on the other hand.

The Trustee, for itself and on behalf of each of the Debentureholders, hereby waives any and all rights to require a Senior Creditor to pursue or exhaust any rights or remedies with respect to the Corporation or any property and assets subject to the Senior Security or in any other manner to require the orderly disposition of property, assets or security in connection with the exercise by the Senior Creditors of any rights, remedies or recourses available to them.

6.4 Obligation to Pay Not Impaired

Nothing contained in this Article Article 6 or elsewhere in this Indenture or in the Debentures is intended to or shall impair, as between the Corporation, its creditors other than the holders of Senior Indebtedness, and the holders of the Debentures, the obligation of the Corporation, which is absolute and unconditional, to pay to the holders of the Debentures the principal, premium, if any, and interest on the Debentures, as and when the same shall become due and payable in accordance with their terms, or affect the relative rights of the holders of the Debentures and creditors of the Corporation other than the holders of the Senior Indebtedness, nor shall anything herein or therein prevent the Trustee or the holder of any Debenture from exercising all remedies otherwise permitted by applicable law upon default under this Indenture, subject to the rights, if any, under this Article Article 6 of the holders of Senior Indebtedness in respect of cash, property or securities of the Corporation received upon the exercise of any such remedy.

6.5 No Payment if Senior Indebtedness in Default

Upon the maturity of any Senior Indebtedness by lapse of time, acceleration or otherwise, or any enforcement of any Senior Indebtedness, then, except as provided in Section 6.8, all principal of and interest on all such matured Senior Indebtedness shall first be paid in full, or shall first have been duly provided for, before any payment is made on account of principal of or interest on the Debentures.

In case of default with respect to any Senior Indebtedness permitting the holders thereof to accelerate the maturity thereof, unless and until such default shall have been cured or waived or shall have ceased to exist, no payment (by purchase of Debentures or otherwise) shall be made by the Corporation with respect to the principal of or interest on the Debentures and neither the Trustee nor the holders of Debentures shall be entitled to demand, accelerate, institute proceedings for the collection of, or receive any payment or benefit (including without limitation by set-off, combination of accounts or otherwise in any manner whatsoever) on account of the Debentures after the happening of such a default (except as provided in Section 6.8), and unless and until such default shall have been cured or waived or shall have ceased to exist, such payments shall be held in trust for the benefit of, and, if and when such Senior Indebtedness shall have become due and payable, shall be paid over to, the holders of the Senior Indebtedness or their representative or representatives or to the trustee or trustees under any indenture under which any instruments evidencing an amount of the Senior Indebtedness remaining unpaid until all such Senior Indebtedness shall have been paid in full, after giving effect to any concurrent payment or distribution to the holders of such Senior Indebtedness; provided, however, that the foregoing shall in no way prohibit, restrict or prevent the Trustee from taking such actions as may be necessary to preserve claims of the Trustee and/or the holders of Debentures under this Indenture in any bankruptcy, reorganization or insolvency proceeding (including, without limitation, the filing of proofs of claim in any such bankruptcy, reorganization or insolvency proceedings by or against the Corporation or its Subsidiaries and exercising its rights to vote as an unsecured creditor under any such bankruptcy, reorganization or insolvency proceedings commenced by or against the Corporation or its Subsidiaries).

The fact that any payment hereunder is prohibited by this Section 6.5 shall not prevent the failure to make such payment from being an Event of Default hereunder.

6.6 Payment on Debentures Permitted

Nothing contained in this Article Article 6 or elsewhere in this Indenture, or in any of the Debentures, shall affect the obligation of the Corporation to make, or prevent the Corporation from making, at any time except as prohibited by Section 6.2 or 6.5, any payment of principal of or interest on the Debentures. The fact that any such payment is prohibited by Section 6.2 or 6.5 shall not prevent the failure to make such payment from being an Event of Default hereunder. Nothing contained in this Article Article 6 or elsewhere in this Indenture, or in any of the Debentures, shall prevent the conversion of the Debentures or, except as prohibited by Section 6.2 or 6.5, the application by the Trustee of any moneys deposited with the Trustee hereunder for the purpose, to the payment of or on account of the Debenture Liabilities.

6.7 Confirmation of Subordination

Each holder of Debentures by his acceptance thereof authorizes and directs the Trustee on his behalf to take such action as may be necessary or appropriate to effect the subordination as provided in this Article Article 6 and appoints the Trustee his attorney-in-fact for any and all such purposes. This power of attorney, being coupled with an interest and rights, shall be irrevocable. Upon request of the Corporation, and upon being furnished an Officers' Certificate stating that one or more named persons are Senior Creditors, and specifying the amount and nature of the Senior Indebtedness of such Senior Creditors, the Trustee shall enter into a written agreement or agreements with the Corporation and the person or persons named in such Officers' Certificate providing that such person or persons are entitled to all the rights and benefits of this Article Article

6 as a Senior Creditor specified in such Officers' Certificate and in such agreement. Such agreement shall be conclusive evidence that the indebtedness specified therein is Senior Indebtedness. However, nothing herein shall impair the rights of any Senior Creditor who has not entered into such an agreement.

6.8 Knowledge of Trustee

Notwithstanding the provisions of this Article Article 6, the Trustee will not be charged with knowledge of the existence of any fact that would prohibit the making of any payment of monies to or by the Trustee, or the taking of any other action by the Trustee, unless and until the Trustee has received written notice thereof from the Corporation, any Debentureholder, any Senior Creditor or a trustee on behalf of anyone or more Senior Creditors, and such notice to the Trustee shall be deemed to be notice to holders of Debentures. The Trustee will notify holders of Debentures as soon as reasonably practicable of such notice.

6.9 Trustee May Hold Senior Indebtedness

The Trustee is entitled to all the rights set forth in this Article Article 6 with respect to any Senior Indebtedness at the time held by it, to the same extent as any other holder of Senior Indebtedness, and nothing in this Indenture deprives the Trustee of any of its rights as such holder.

6.10 Rights of Holders of Senior Indebtedness Not Impaired

No right of any present or future holder of any Senior Indebtedness to enforce the subordination herein will at any time or in any way be prejudiced or impaired by any act or failure to act on the part of the Corporation or by any non-compliance by the Corporation with the terms, provisions and covenants of this Indenture, regardless of any knowledge thereof which any such holder may have or be otherwise charged with.

6.11 Altering the Senior Indebtedness

The holders of the Senior Indebtedness have the right to extend, renew, revise, restate, modify or amend the terms of the Senior Indebtedness (including increasing the principal amount of the Senior Indebtedness) or the Senior Security therefor and to release, sell or exchange such security and otherwise to deal freely with the Corporation, all without notice to or consent of the Debentureholders or the Trustee and without affecting the liabilities and obligations of the parties to this Indenture or the Debentureholders or the Trustee.

6.12 Additional Indebtedness

This Indenture does not restrict the Corporation or any other entity of the Corporation from incurring additional indebtedness for borrowed money or otherwise or mortgaging, pledging or charging its real (immoveable) or personal (moveable) property or properties to secure any indebtedness or other financing.

6.13 Right of Debentureholder to Convert Not Impaired

The subordination of the Debentures to the Senior Indebtedness and the provisions of this Article Article 6 do not impair in any way the right of a Debentureholder to convert its Debentures pursuant to Article Article 3.

6.14 Invalidated Payments

In the event that any of the Senior Indebtedness shall be paid in full and subsequently, for whatever reason, such formerly paid or satisfied Senior Indebtedness becomes unpaid or unsatisfied, the terms and conditions of this Article Article 6 shall be reinstated and the provisions of this Article Article 6 shall again be operative until all Senior Indebtedness is repaid in full, provided that such reinstatement shall not give the Senior Creditors any rights or recourses against the Trustee or the Debentureholders for amounts paid to the Debentureholders subsequent to such payment or satisfaction in full and prior to such reinstatement.

6.15 Contesting Security

The Trustee, for itself and on behalf of the Debentureholders, agrees that it shall not contest or bring into question the validity, perfection or enforceability of any of the Senior Security or Senior Indebtedness, or the relative priority of the Senior Security or Senior Indebtedness.

6.16 No Set-Off

Each of the Corporation and the Trustee agrees, and each holder of a Debenture, by his acceptance thereof, likewise agrees, that it shall have no rights of set-off or counterclaim with respect to the principal of, premium, if any, and interest on the Debentures at any time when any payment of, or in respect of, such amounts to the Trustee or the holder of a Debenture is prohibited by this Article Article 6 or is otherwise required to be paid to the holders of Senior Indebtedness or their representative or to the trustee under any indenture under which any instruments evidencing any of such Senior Indebtedness may have been issued, as their respective interests may appear.

6.17 Obligations Created by Article Article 6

The Corporation and the Trustee, in its capacity as trustee hereunder and not in its corporate personal capacity, agree, and each holder by its acceptance of a Debenture likewise agrees, that:

(a) the provisions of this Article Article 6 are an inducement and consideration to each holder of Senior Indebtedness to give or continue credit to the Corporation, the Corporation's Subsidiaries or others or to acquire Senior Indebtedness;

(b) each holder of Senior Indebtedness may accept the benefit of this Article Article 6 on the terms and conditions set forth in this Article Article 6 by giving or continuing credit to the Corporation, the Corporation's Subsidiaries or others or by acquiring or having outstanding as of the date hereof Senior Indebtedness, in each case without notice to the Trustee and without establishing actual reliance on this Article Article 6; and

(c) each obligation created by this Article Article 6 is created for the benefit of the holders of Senior Indebtedness and is hereby declared to be created in trust for those holders by the Corporation, the Trustee and each holder of a Debenture and shall be binding on the Corporation, the Trustee and each holder of a Debenture whether or not any confirmation described in Section 6.7 is requested, executed or delivered.

6.18 Amendments to Article Article 6

Each of the Corporation and the Trustee (relying on the opinion of Counsel) agrees, and each holder of a Debenture, by his acceptance thereof, likewise agrees, not to make any changes to this Indenture or the Debentures, including this Article Article 6 or the definition of Senior Indebtedness, which prejudice the rights of the holders of Senior Indebtedness under this Article Article 6 without the consent of the holders of Senior Indebtedness or their representative or the trustee under any indenture under which any instruments evidencing any of such Senior Indebtedness may have been issued.

ARTICLE 7
COVENANTS OF THE CORPORATION

The Corporation hereby covenants and agrees with the Trustee for the benefit of the Trustee and the Debentureholders, that so long as any Debentures remain outstanding under this Indenture, it will perform its obligations as set forth in this Article Article 7.

7.1 To Pay Principal and Interest

The Corporation will duly and punctually pay or cause to be paid to the Trustee on behalf of the Debentureholders the principal of and interest accrued on the Debentures in accordance with this Indenture, including, without limitation, on the dates, at the places, in the amounts and in the manner specified herein.

7.2 To Pay Trustee's Remuneration

The Corporation covenants that it will pay to the Trustee from time to time reasonable remuneration for its services hereunder and will pay or reimburse the Trustee upon its request for all reasonable expenses, disbursements, and advances incurred or made by the Trustee in the administration or execution of the trusts hereby created (including reasonable compensation and the disbursements of its Counsel and all other advisors and experts not regularly in its employ), both before and after default hereunder and thereafter until the duties of the Trustee under the trusts hereof shall have been finally and fully performed. Any amount due under this Section 7.2 shall bear interest at a rate per annum equal to the current rate charged by the Trustee from time to time from 30 days after the Trustee shall have made a request for payment. The obligation of the Corporation under this Section 7.2 shall survive the resignation or removal of the Trustee.

7.3 To Give Notice of Default

The Corporation shall provide notice in writing to the Trustee within three Business Days upon obtaining knowledge of any Default or Event of Default hereunder.

7.4 Preservation of Business and Existence, etc.

Subject to the express provisions hereof, the Corporation will carry on and conduct its business, and cause its Subsidiaries to carry on and conduct businesses, of the same general type presently carried on, in each case in a proper, efficient and business-like manner and in accordance with good business practices; and, subject to the express provisions hereof, it will do or cause to be

done all things necessary to preserve and keep in full force and effect its and its Subsidiaries respective corporate existences.

7.5 Notice to Trustee

The Corporation will provide the Trustee with a copy of any Redemption Notice issued to Holders.

7.6 Additional Covenants

(a) The Corporation will keep or cause to be kept proper books of record and account, in which full and correct entries shall be made of all financial transactions and the assets and business of the Corporation on a consolidated basis in accordance with IFRS, consistently applied.

(b) In addition to the requirements of Sections 7.1 and 10.1, the Corporation and each of its Subsidiaries will not, in a single transaction or a series of related transactions, consolidate with or merge with or into any other Person, permit any other Person to consolidate with or merge into it, unless the Corporation shall be the survivor of such merger or consolidation; or the surviving Person shall expressly assume by supplemental indenture all of the obligations of the Corporation under this Indenture; and the Corporation has delivered to the Trustee an Officer's Certificate stating that such consolidation or merger complies with this Indenture, that the surviving Person agrees to be bound thereby and that all conditions precedent in this Indenture relating to such transaction have been satisfied.

(c) The Corporation will not change its main place of business and location of its books and records from the address provided in Section 12.1(a) without providing at least 30 days' prior written notice to the Trustee. The Corporation will not change its name in any manner without providing at least 30 days' prior written notice to the Trustee.

(d) The Corporation shall not (i) declare or pay any cash distribution on any shares of the Corporation at any time after the occurrence of an Event of Default under Section 8.1(b) and until such Event of Default has been cured or waived; or (ii) sell or otherwise dispose of all or substantially all of its assets or undertaking without, in each case, the prior approval of the Holders by Extraordinary Resolution.

(e) The Corporation shall furnish to the Trustee on each anniversary of this Indenture its certificate that the Corporation has complied with all covenants, conditions or other requirements contained in this Indenture, the non-compliance with which would, with the giving of notice or the lapse of time, or both, or otherwise, constitute an Event of Default, or if such is not the case, specifying the covenant, condition or other requirement which has not been complied with and giving particulars of such non-compliance. The Corporation shall, whenever the Trustee so requires, furnish the Trustee with evidence by way of statutory declaration, opinion, report or certificate as specified by the Trustee as to any action or step required or permitted to be taken by the Corporation or as a result of any obligation imposed by this Indenture.

7.7 SEC Reporting

The Corporation confirms that as at the date of execution of this agreement it does not have a class of securities registered pursuant to Section 12 of the US Securities Exchange Act or have a reporting obligation pursuant to Section 15(d) of the US Securities Exchange Act. The Corporation covenants that in the event that (i) any class of its securities shall become registered pursuant to Section 12 of the US Securities Exchange Act or the Corporation shall incur a reporting obligation pursuant to Section 15(d) of the US Securities Exchange Act, or (ii) any such registration or reporting obligation shall be terminated by the Corporation in accordance with the US Securities Exchange Act, the Corporation shall promptly deliver to the Trustee an Officers' Certificate (in a form provided by the Trustee) notifying the Trustee of such registration or termination and such other information as the Trustee may require at the time. The Corporation acknowledges that the Trustee is relying upon the foregoing representation and covenants in order to meet certain United States Securities Exchange Commission obligations with respect to those clients who are filing with the United States Securities Exchange Commission.

7.8 Performance by Trustee

If the Corporation shall fail to perform any of its covenants contained in this Indenture and such failure has not been cured or rectified within the time permitted by this Indenture, the Trustee may notify the Debentureholders of such failure on the part of the Corporation or may itself perform any of the covenants capable of being performed by it, but shall be under no obligation to do so or to notify the Debentureholders. Any sums expended or advanced by the Trustee in connection with this Section 7.8 shall be repayable as provided in Section 7.2. No such performance, expenditure or advance by the Trustee shall be deemed to relieve the Corporation of any default hereunder.

ARTICLE 8
DEFAULT

8.1 Events of Default

Each of the following events constitutes and is herein referred to as, an "Event of Default":

(a) failure to pay principal on the outstanding Debentures when due in accordance with the terms of this Indenture, and such failure continues for a period of 20 days;

(b) failure to pay accrued interest on the outstanding Debentures when due in accordance with the terms of this Indenture, and such failure continues for a period of 20 days;

(c) if a decree or order of a court having jurisdiction is entered adjudging the Corporation or a Subsidiary a bankrupt or insolvent under the *Bankruptcy and Insolvency Act* (Canada) or any other bankruptcy, insolvency or analogous laws of Canada or any province thereof, or issuing sequestration or process of execution against, or against any substantial part of, the property of the Corporation or a Subsidiary, or appointing a receiver of, or of any substantial part of, the property of the Corporation or a Subsidiary or ordering the winding-up or liquidation of the affairs of the Corporation or a Subsidiary and any such decree or order continues

unstayed and in effect for a period of 30 days or any substantial part of the property of the Corporation or a Subsidiary shall be sequestered or attached and shall not be returned to the possession of the Corporation or such Subsidiary or released from such attachment, as the case may be, whether by filing of a bond or stay or otherwise within 45 consecutive days thereafter;

(d) if the Corporation or a Subsidiary institutes proceedings to be adjudicated a bankrupt or insolvent, or for protection from its creditors under the *Companies Creditors Arrangement Act* (Canada) or consents to the institution of bankruptcy or insolvency proceedings against it under the *Bankruptcy and Insolvency Act* (Canada) or any other bankruptcy, insolvency or analogous laws of Canada or any province thereof, or consents to the filing of any such petition or to the appointment of a receiver, or liquidator or trustee or assignee in bankruptcy or insolvency for it, or of any substantial part of the property of the Corporation or a Subsidiary or makes a general assignment for the benefit of creditors, or is unable to or admits in writing its inability to pay its debts generally as they become due, or any corporate action shall be taken by the Corporation or a Subsidiary in furtherance of any of the aforesaid actions;

(e) if a resolution is passed for the winding-up or liquidation of the Corporation or a Subsidiary except in the course of carrying out or pursuant to a transaction in respect of which the conditions of Section 10.1 are duly observed and performed;

(f) if the Corporation is in default of payment to any creditor who has supplied credit in excess of $250,000 to the Corporation's business, such creditor has demanded repayment of all or substantially all of the amount due to it, the requirement to repay such credit is accelerated or legal proceedings have been taken to enforce such payment, and such default continues for a period of 30 days;

(g) if the Corporation makes a material default in observing or performing any other covenant or condition (other than a covenant or conditions on payment of money) of this Indenture (which, for greater certainty, excludes the provisions of this Section 8.1) in each case on its part to be observed or performed and, after notice in writing has been given by the Trustee to the Corporation specifying such default and requiring the Corporation to remedy the same (which said notice may be given by the Trustee upon receipt of a Debentureholders' request), the Corporation shall fail to remedy such default within a period of 30 days, unless the Trustee (having regard to the subject matter of the default) shall have agreed to a longer period, and in such event, within the period agreed to by the Trustee; or

(h) if the Corporation sells or otherwise disposes of all or substantially all of its assets without prior approval of the Holders of the Debentures by Extraordinary Resolution,

in each and every such event described in this Section 8.1, the Trustee may, in its discretion, and shall, upon receipt of a request in writing signed by the Holders of not less than 25% of the principal amount of the Debentures then outstanding, subject to the provisions of Section 8.3, by notice in writing to the Corporation declare the principal and accrued interest on all Debentures then outstanding and all other moneys outstanding hereunder to be due and payable and the same

shall forthwith become immediately due and payable to the Trustee, anything therein or herein to the contrary notwithstanding, and the Corporation shall forthwith pay to the Trustee for the benefit of the Debentureholders such principal and accrued and unpaid interest on such Debentures and all other moneys outstanding hereunder, together with subsequent interest at the rate borne by the Debentures on such principal and such other moneys from the date of the said declaration until payment is received by the Trustee, such subsequent interest to be payable at the times and places and in the moneys mentioned in and according to the tenor of the Debentures. Such payment when made shall be deemed to have been made in discharge of the Corporation's obligations hereunder and any moneys so received by the Trustee shall be applied in the manner provided in Section 8.7.

8.2 Notice of Events of Default

If an Event of Default shall occur and be continuing the Trustee shall, within 10 days after it receives written notice of the occurrence of such Event of Default from the Corporation, the Debentureholder or any other interested party, give notice of such Event of Default to the Debentureholders in the manner provided in Section 12.2.

8.3 Waiver of Default

Upon the happening of any Event of Default hereunder:

(a) the Holders shall have the power (in addition to the powers exercisable by Extraordinary Resolution as hereinafter provided) by requisition in writing by the Holders of $66^{2/3}$% of the principal amount of Debentures then outstanding or by Extraordinary Resolution of Debentureholders at a meeting held in accordance with Section Article 11 hereof, to instruct the Trustee to waive any Event of Default, and the Trustee shall thereupon waive the Event of Default upon such terms and conditions as shall be prescribed in such requisition or resolution; and

(b) the Trustee, so long as it has not become bound to declare the principal and interest on the Debentures then outstanding to be due and payable, or to obtain or enforce payment of the same, shall have power to waive any Event of Default if, in the Trustee's reasonable opinion, on advice from Counsel, the same shall have been cured or adequate satisfaction made therefor, and in such event to cancel any such declaration theretofore made by the Trustee in the exercise of its discretion, upon such terms and conditions as the Trustee may deem advisable,

and no such act or omission either of the Trustee or of the Debentureholders shall extend to or be taken in any manner whatsoever to affect any subsequent Event of Default or the rights resulting therefrom.

8.4 Waiver of Declaration

At any time after a declaration of acceleration with respect to the Debentures has been made pursuant to Section 8.1 and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter provided, the Holders of 662/3% of the principal amount of outstanding Debentures, by written notice to the Corporation and the Trustee, may thereupon rescind and annul such declaration and its consequences if the Corporation has paid or deposited with the Trustee a sum sufficient to pay:

(a) all overdue interest on all Debentures;

(b) the principal on all of the Debentures which have become due otherwise than by such declaration of acceleration, and interest thereon at the rate or rates prescribed therefor in such Debentures; and

(c) to the extent that payment of such interest is lawful and applicable, interest upon overdue instalments of interest at the rate or rates prescribed therefor in such Debentures; and

all Events of Default with respect to the Debentures, other than the non-payment of the principal and interest on such Debentures which have become due solely by such declaration of acceleration, have been cured or waived in accordance with the provisions of this Indenture.

8.5 Enforcement by the Trustee

(a) Subject to the provisions of Section 8.3 and to the provisions of any Extraordinary Resolution that may be passed by the Debentureholders, if the Corporation shall fail to pay to the Trustee, forthwith after the same shall have been declared to be due and payable under Section 8.1, the principal and interest on all Debentures then outstanding, together with any other amounts due hereunder, the Trustee may in its discretion and shall upon receipt of a request in writing signed by the Holders of not less than 25% of the principal amount of the Debentures then outstanding and upon being funded and indemnified in advance to its reasonable satisfaction against all costs, expenses and liabilities to be incurred, proceed in its name as Trustee hereunder to obtain or enforce payment of the said principal and interest on all the Debentures then outstanding together with any other amounts due hereunder by such proceedings authorized by this Indenture or by law or equity as the Trustee in such request shall have been directed to take, or if such request contains no such direction, or if the Trustee shall act without such request, then by such proceedings authorized by this Indenture or by suit at law or in equity as the Trustee shall deem expedient.

(b) The Trustee shall be entitled and empowered, either in its own name or as trustee of an express trust, or as attorney-in-fact for the Holders, or in any one or more of such capacities, to file such proof of debt, amendment of proof of debt, claim, petition or other document as may be necessary or advisable in order to have the claims of the Trustee and of the Holders allowed in any insolvency, bankruptcy, liquidation or other judicial proceedings relative to the Corporation or its creditors or relative to or affecting its property. The Trustee is hereby irrevocably appointed (and the successive respective Holders by taking and holding the same shall be conclusively deemed to have so appointed the Trustee) the true and lawful attorney-in-fact of the respective Holders with authority to make and file in the respective names of the Holders or on behalf of the Holders as a class, subject to deduction from any such claims of the amounts of any claims filed by any of the Holders themselves, any proof of debt, amendment of proof of debt claim, petition or other document in any such proceedings and to receive payment of any sums becoming distributable on account thereof, and to execute any such other papers and documents and to do and perform any and all such acts and things for and on behalf

of such Holders, as may be necessary or advisable in the opinion of the Trustee, in order to have the respective claims of the Trustee and of the Holders against the Corporation or its property allowed in any such proceeding, and to receive payment of or on account of such claims; provided, however, that nothing contained in this Indenture shall be deemed to give to the Trustee, unless so authorized by Extraordinary Resolution, any right to accept or consent to any plan of reorganization or otherwise by action of any character in such proceeding to waive or change in any way any right of any Debentureholder.

(c) The Trustee shall also have the power at any time and from time to time to institute and to maintain such suits and proceedings as it may be advised shall be necessary or advisable to preserve and protect its interests and the interests of the Debentureholders.

(d) All rights of action hereunder may be enforced by the Trustee without the possession of any of the Debentures. Any such suit or proceeding instituted by the Trustee shall be brought in the name of the Trustee as trustee of an express trust, and any recovery of judgment shall be for the rateable benefit of the Holders subject to the provisions of this Indenture. In any proceeding brought by the Trustee (and also any proceeding in which a declaratory judgment of a court may be sought as to the interpretation or construction of any provision of this Indenture, to which the Trustee shall be a party) the Trustee shall be held to represent all the Holders, and it shall not be necessary to make any Holders parties to any such proceeding.

8.6 No Suits by Debentureholders

No Debentureholder shall have any right to institute any proceeding, judicial or otherwise, for the payment of any principal or interest owing on any Debentures, or for the execution of any trust or power under, or otherwise with respect to, this Indenture, or for the appointment of a receiver, or a receiver and manager, or trustee, or for the protection or enforcement of any other right or remedy hereunder, unless:

(a) such Holder shall previously have given written notice to the Trustee of the happening (or continuance) of an Event of Default hereunder;

(b) the Holders of not less than 25% of the principal amount of the outstanding Debentures shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder and the Trustee shall have been afforded reasonable opportunity either itself to proceed to exercise the powers hereinbefore granted or to institute an action, suit or proceeding in its name for such purpose;

(c) the Debentureholders or any of them shall have offered to the Trustee in advance, prior sufficient funding and reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such request;

(d) the Trustee shall have failed to act within 30 days after such notification, request and offer of indemnity and such notification, request and offer of indemnity are hereby declared in every such case, at the option of the Trustee, to be conditions

precedent to any such proceeding or for any other remedy hereunder by or on behalf of the Holder of any Debentures; and

(e) during such 30-day period, the Holders of a majority of the principal amount of the outstanding Debentures do not give the Trustee a direction inconsistent with the request.

8.7 Application of Moneys by Trustee

(a) Except as herein otherwise expressly provided, any moneys received by the Trustee from the Corporation pursuant to the foregoing provisions of this Section Article 8, or as a result of legal or other proceedings or from any trustee in bankruptcy or liquidator of the Corporation, shall be applied, together with any other moneys in the hands of the Trustee available for such purpose, as follows:

(i) first, in payment or in reimbursement to the Trustee of its reasonable compensation, costs, charges, expenses, borrowings, advances or other moneys (including any outstanding reasonable fees and expenses of its Counsel and other experts) reasonably furnished or provided by or at the instance of the Trustee in or about the execution of its trusts under, or otherwise in relation to, this Indenture, with interest thereon as herein provided;

(ii) second, but subject as hereinafter in this Section 8.7 provided, in payment, rateably and proportionately to the Holders, of the accrued and unpaid interest and then principal unless otherwise directed by Extraordinary Resolution and in that case in such order or priority as between interest and principal as may be directed by such resolution; and

(iii) third, in payment of the surplus, if any, of such moneys to the Corporation or its assigns;

provided, however, that no payment shall be made pursuant to Section 8.7(a)(ii) above in respect of the interest or principal on any Debenture held, directly or indirectly, by or for the benefit of the Corporation or any Subsidiary (other than any Debenture pledged for value and in good faith to a Person other than the Corporation or any Subsidiary but only to the extent of such Person's interest therein) except subject to the prior payment in full of the interest and principal on all Debentures which are not so held.

(b) The Trustee shall not be bound to apply or make any partial or interim payment of any moneys coming into its hands if the amount so received by it, after reserving such amount as the Trustee may think necessary to provide for the payments mentioned in Section 8.7(a), is insufficient to make a distribution of at least 2% of the aggregate principal amount of the outstanding Debentures, but it may retain the money so received by it and invest or deposit the same as provided in Section 13.8until the money or the investments representing the same, with the income derived therefrom, together with any other moneys for the time being under its control shall be sufficient for the said purpose or until it shall consider it advisable

to apply the same in the manner hereinbefore set forth. The foregoing shall, however, not apply to a final payment in distribution hereunder.

8.8 Notice of Payment by Trustee

Not less than 15 days' notice shall be given in the manner provided in Section 12.2 by the Trustee to the Debentureholders of any payment to be made under this Section Article 8. Such notice shall state the time when and place where such payment is to be made and also the liability under this Indenture to which it is to be applied. After the day so fixed, unless payment shall have been duly demanded and have been refused, the Debentureholders will be entitled to interest only on the balance (if any) of the principal and interest due to them, respectively, on the Debentures, after deduction of the respective amounts payable in respect thereof on the day so fixed.

8.9 Trustee May Demand Production of Debentures

The Trustee shall have the right to demand production of the Debentures in respect of which any payment of principal and interest required by this Section Article 8 is made and may cause to be endorsed on the same a memorandum of the amount so paid and the date of payment, but the Trustee may, in its discretion, dispense with such production and endorsement, upon such indemnity being given to it and to the Corporation as the Trustee shall deem sufficient.

8.10 Remedies Cumulative

No remedy herein conferred upon or reserved to the Trustee, or upon or to the Holders, is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now existing or hereafter to exist by law or by statute.

8.11 Judgment Against the Corporation

The Corporation covenants and agrees with the Trustee that, in case of any judicial or other proceedings to enforce the rights of the Debentureholders, judgment may be rendered against it in favour of the Debentureholders or in favour of the Trustee, as trustee for the Debentureholders, for any principal amount which may remain due in respect of the Debentures and the interest thereon and any other moneys owing hereunder.

8.12 Immunity of Directors and Others

The Debentureholders and the Trustee hereby waive and release any right, cause of action or remedy now or hereafter existing in any jurisdiction against any past, present or future officer, director, employee and agent or holder of Shares of the Corporation or any of its Affiliates or of any successor of any of them or any of their respective directors, officers, employees and agents for the payment of the principal or interest on any of the Debentures or on any covenant, agreement, representation or warranty by the Corporation herein or in the Debentures contained.

8.13 Control by Holders

(a) The Holders of at least a majority of the principal amount of the outstanding Debentures, may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred

on it with respect to the Debentures; and take any other action authorized to be taken by or on behalf of the Holders of any specified aggregate principal amount of Debentures under any provisions of this Indenture or under all applicable laws.

(b) The Trustee may refuse, however, to follow any direction that conflicts with applicable law or this Indenture.

8.14 Rights of Holders to Receive Payment

Notwithstanding any other provision of this Indenture, the right of any Holder to receive payment of principal and interest on the Debentures held by such Holder, on or after the respective due dates expressed in the Debentures, or to bring suit for the enforcement of any such payment on or after such respective dates, shall not be impaired or affected without the consent of the Holder.

8.15 Delay or Omission Not Waiver

No delay or omission of the Trustee or of any Holder to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Indenture or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

ARTICLE 9
SATISFACTION AND DISCHARGE

9.1 Cancellation and Destruction

All Debentures shall forthwith after satisfaction of payment therefor be void and of no further force and effect and shall be cancelled by the Trustee. If required by the Corporation, the Trustee shall furnish to it a cancellation certificate setting out the designating numbers of the Debentures so cancelled. All Debentures cancelled or required to be cancelled under this Indenture shall be destroyed by the Trustee.

9.2 Non-Presentation of Debentures

In case the Holder of any Debenture shall fail to present the same for payment on the date on which the principal or the interest thereon or represented thereby becomes payable either at maturity or otherwise or fails to accept payment on account thereof and give such receipt therefor, if any, as the Trustee may require:

(a) the Corporation shall be entitled to pay or deliver to the Trustee and direct the Trustee to set aside; or

(b) in respect of moneys in the hands of the Trustee which may or should be applied to the payment of the Debentures, the Corporation shall be entitled to direct the Trustee to set aside;

the principal and the interest, as the case may be, in trust to be paid or delivered to the Holder of such Debenture upon due presentation or surrender thereof in accordance with the provisions of this Indenture; and thereupon the principal and the interest payable on or represented by each

Debenture in respect whereof such moneys have been set aside shall be deemed to have been paid and the Holder thereof shall thereafter have no right in respect thereof except that of receiving delivery and payment of the moneys so set aside by the Trustee upon due presentation and surrender thereof, subject always to the provisions of Section 9.3.

9.3 Repayment of Unclaimed Moneys

Subject to applicable law, any moneys set aside under Section 9.2 and not claimed by and paid to Holders within two years after the date of such setting aside shall be repaid without interest and delivered to the Corporation by the Trustee and thereupon the Trustee shall be released from all further liability with respect to such moneys and thereafter the Holders in respect of which such moneys were so repaid to the Corporation shall have no rights in respect thereof.

9.4 Discharge

The Trustee shall at the written request of the Corporation release and discharge this Indenture and execute and deliver such instruments as it shall be advised by Counsel are requisite for that purpose and to release the Corporation from its covenants herein contained (other than the provisions relating to the indemnification of the Trustee), upon proof being given to the reasonable satisfaction of the Trustee that the principal and interest on all the Debentures and all other moneys payable hereunder have been paid or satisfied or that, all the Debentures having matured, payment of the principal of and interest on such Debentures and of all other moneys payable hereunder has been duly and effectually provided for in accordance with the provisions hereof.

9.5 Satisfaction on Maturity Date

(a) The Corporation shall be deemed to have fully paid, satisfied and discharged all of the outstanding Debentures and the Trustee, at the expense of the Corporation, shall execute and deliver proper instruments acknowledging the full payment, satisfaction and discharge of such Debentures, when, with respect to all of the outstanding Debentures either:

(i) the Corporation has deposited or caused to be deposited with the Trustee as trust funds or property in trust for the purpose of making payment on such Debentures, an amount in money or Common Shares sufficient to pay, satisfy and discharge the entire amount of principal and interest to the Maturity Date; or

(ii) the Corporation has deposited or caused to be deposited with the Trustee as trust property in trust for the purpose of making payment on such Debentures, such amount in Canadian dollars of direct obligations of, or obligations the principal and interest of which are guaranteed by the Government of Canada, as will, together with the income to accrue thereon and reinvestment thereof, be sufficient to pay and discharge the entire amount of principal and accrued and unpaid interest to the Maturity Date of all such Debentures;

and in such event:

(iii) the Corporation has also paid, caused to be paid or made provisions to the satisfaction of the Trustee for the payment of all other sums payable with respect to all of such Debentures (together with all applicable expenses of the Trustee in connection with the payment of such Debentures); and

(iv) the Corporation has delivered to the Trustee an Officer's Certificate stating that all conditions precedent herein provided relating to the payment, satisfaction and discharge of all such Debentures have been complied with.

(b) Any deposits with the Trustee referred to in this Section 9.5 shall be irrevocable, subject to Section 9.3, and shall be made under the terms of an escrow and/or trust agreement in form and substance satisfactory to the Trustee and which provides for the due and punctual payment of the principal and interest on the Debentures being satisfied.

(c) Upon the satisfaction of the conditions set forth in this Section 9.5 with respect to all the outstanding Debentures, the terms and conditions of the Debentures, including the terms and conditions with respect thereto set forth in this Indenture shall no longer be binding upon or applicable to the Corporation.

(d) If the Trustee is unable to apply any money or securities in accordance with this Section 9.5 by reason of any legal proceeding or any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, the Corporation's obligations under this Indenture and the affected Debentures shall be revived and reinstated as though no money or securities had been deposited pursuant to this Section 9.5 until such time as the Trustee is permitted to apply all such money or securities in accordance with this Section 9.5, provided that if the Corporation has made any payment in respect of principal or interest on Debentures or, as applicable, other amounts because of the reinstatement of its obligations, the rights of the Corporation shall be subrogated to the rights of the Holders of such Debentures to receive such payment from the money or securities held by the Trustee.

9.6 Satisfaction on a Redemption Payment Date

(a) The Corporation shall be deemed to have fully paid, satisfied and discharged all of the Debentures that were subject to acceleration pursuant to the issuance of a Redemption Notice and that remain outstanding on the first Business Day following the Redemption Payment Date (the "Outstanding Accelerated Debentures") and the Trustee, at the expense of the Corporation, shall execute and deliver proper instruments acknowledging the full payment, satisfaction and discharge of such Outstanding Accelerated Debentures, when, with respect to all of the Outstanding Accelerated Debentures either:

(i) the Corporation has deposited or caused to be deposited with the Trustee as trust funds or property in trust for the purpose of making payment on such Outstanding Accelerated Debentures, an amount in money sufficient to pay, satisfy and discharge the entire amount of principal and interest to the Redemption Payment Date; or

(ii) the Corporation has deposited or caused to be deposited with the Trustee as trust property in trust for the purpose of making payment on such Outstanding Accelerated Debentures such amount in Canadian dollars of direct obligations of, or obligations the principal and interest of which are guaranteed by the Government of Canada, as will, together with the income to accrue thereon and reinvestment thereof, be sufficient to pay and discharge the entire amount of principal and accrued and unpaid interest to Redemption Payment Date, of all such Outstanding Accelerated Debentures;

and in such event:

(iii) the Corporation has also paid, caused to be paid or made provisions to the satisfaction of the Trustee for the payment of all other sums payable with respect to all of such Outstanding Accelerated Debentures (together with all applicable expenses of the Trustee in connection with the payment of such Outstanding Accelerated Debentures); and

(iv) the Corporation has delivered to the Trustee an Officer's Certificate stating that all conditions precedent herein provided relating to the payment, satisfaction and discharge of all such Outstanding Accelerated Debentures have been complied with.

(b) Any deposits with the Trustee referred to in this Section 9.6 shall be irrevocable, subject to Section 9.3, and shall be made under the terms of an escrow and/or trust agreement in form and substance satisfactory to the Trustee and which provides for the due and punctual payment of the principal and interest on the Outstanding Accelerated Debentures being satisfied.

(c) Upon the satisfaction of the conditions set forth in this Section 9.6 with respect to all the Outstanding Accelerated Debentures the terms and conditions of the Outstanding Accelerated Debentures, including the terms and conditions with respect thereto set forth in this Indenture, shall no longer be binding upon or applicable to the Corporation.

(d) If the Trustee is unable to apply any money or securities in accordance with this Section 9.6 by reason of any legal proceeding or any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, the Corporation's obligations under this Indenture and the Outstanding Accelerated Debentures shall be revived and reinstated as though no money or securities had been deposited pursuant to this Section 9.6 until such time as the Trustee is permitted to apply all such money or securities in accordance with this Section 9.6, provided that if the Corporation has made any payment in respect of principal or interest on Outstanding Accelerated Debentures or, as applicable, other amounts because of the reinstatement of its obligations, the rights of the Corporation shall be subrogated to the rights of the Holders of such Outstanding Accelerated Debentures to receive such payment from the money or securities held by the Trustee.

ARTICLE 10
SUCCESSORS

10.1 Restrictions on Amalgamation, Merger and Sale of Certain Assets, etc.

Subject to and without limitation of the provisions of this Indenture, the Corporation shall not enter into any transaction or series of transactions whereby all or substantially all of its undertaking, property or assets would become the property of any other Person (herein called a "Successor") whether by way of reorganization, consolidation, amalgamation, arrangement, merger, transfer, sale or otherwise, unless:

(a) prior to or contemporaneously with the consummation of such transaction the Corporation and the Successor shall have executed such instruments and done such things as, in the opinion of Counsel, are necessary or advisable to establish that upon the consummation of such transaction:

(i) the Successor will have assumed all the covenants and obligations of the Corporation under this Indenture in respect of the Debentures;

(ii) the Debentures will be valid and binding obligations of the Successor entitling the Holders thereof, as against the Successor, to all the rights of Debentureholders under this Indenture; and

(iii) in the case of the entity organized otherwise than under the laws of the Province of Quebec, the Successor shall attorn to the jurisdiction of the courts of the Province of Quebec;

(b) such transaction, in the opinion of Counsel, shall be on such terms as to substantially preserve and not materially and adversely impair any of the rights and powers of the Trustee or of the Debentureholders hereunder; and

(c) no condition or event shall exist as to the Corporation (at the time of such transaction) or the Successor (immediately after such transaction) and after giving full effect thereto or immediately after the Successor shall become liable to pay the principal and interest and other moneys due or which may become due hereunder, which constitutes or would constitute a Default or an Event of Default hereunder.

10.2 Vesting of Powers in Successor

Whenever the conditions of Section 10.1 hereof shall have been duly observed and performed, any Successor formed by or resulting from such transaction shall succeed to, and be substituted for, and may exercise every right and power of the Corporation under this Indenture with the same effect as though the Successor had been named as the Corporation herein and thereafter.

ARTICLE 11
MEETINGS OF DEBENTUREHOLDERS

11.1 Right to Convene Meeting

The Trustee or the Corporation may at any time and from time to time, and the Trustee shall, on receipt of a written request of the Corporation or a written request signed by the Holders of not less than 25% of the principal amount of the Debentures then outstanding and upon receiving funding and being indemnified in advance pursuant to Section 13.12(a) to its reasonable satisfaction by the Corporation or by the Debentureholders signing such request, as the case may be, against the costs which may be incurred in connection with the calling and holding of such meeting, convene a meeting of the Debentureholders. In the event of the Trustee failing, within 30 days after receipt of any such request and such funding of indemnity, to give notice convening a meeting, the Corporation or such Debentureholders, as the case may be, may convene such meeting. Every such meeting shall be held in the City of Montreal or at such other place as may be approved or determined by the Trustee.

11.2 Notice of Meetings

At least 21 days' notice of any meeting shall be given to the Debentureholders in the manner provided in Section 12.2 and a copy of such notice shall be sent by first class mail to the Trustee, unless the meeting has been called by it. Such notice shall state the time when and the place where the meeting is to be held and shall state briefly the general nature of the business to be transacted thereat and it shall not be necessary for any such notice to set out the terms of any resolution to be proposed or any of the provisions of this Section Article 11. The accidental omission to give notice of a meeting to any Holder shall not invalidate any resolution passed at any such meeting. A Holder may waive notice of a meeting either before or after the meeting.

11.3 Chairman

A person, who need not be a Debentureholder, nominated in writing by the Trustee shall be chairman of the meeting and if no person is so nominated, or if the person so nominated is not present within 15 minutes from the time fixed for the holding of the meeting, a majority of the Debentureholders present in person or by proxy shall choose some person present to be chairman.

11.4 Quorum

Subject to the provisions of Section 11.12, at any meeting of the Debentureholders a quorum shall consist of Debentureholders present in person or by proxy and representing at least 25% of the principal amount of the outstanding Debentures. If a quorum of the Debentureholders shall not be present within 30 minutes from the time fixed for holding any meeting, the meeting, if summoned by the Debentureholders or pursuant to a request of the Debentureholders, shall be dissolved, but in any other case the meeting shall be adjourned to the same day in the next week (unless such day is not a Business Day in which case it shall be adjourned to the next following Business Day thereafter) at the same time and place and no notice shall be required to be given in respect of such adjourned meeting. At the adjourned meeting, the Debentureholders present in person or by proxy shall, subject to the provisions of Section 11.12, constitute a quorum and may transact the business for which the meeting was originally convened notwithstanding that they may not represent 25% of the principal amount of the outstanding Debentures. Any business may be brought before or

dealt with at an adjourned meeting which might have been brought before or dealt with at the original meeting in accordance with the notice calling the same. No business shall be transacted at any meeting unless the required quorum is present at the commencement of business.

11.5 Power to Adjourn

The chairman of any meeting at which a quorum of the Debentureholders is present may, with the consent of the Holders of a majority of the principal amount of the Debentures represented thereat, adjourn any such meeting and no notice of such adjournment need be given except such notice, if any, as the meeting may prescribe.

11.6 Show of Hands

Every question submitted to a meeting shall, subject to Section 11.7, be decided in the first place by a majority of the votes given on a show of hands except that votes on Extraordinary Resolutions shall be given in the manner hereinafter provided. At any such meeting, unless a poll is duly demanded as herein provided, a declaration by the chairman that a resolution has been carried or carried unanimously or by a particular majority or lost or not carried by a particular majority shall be conclusive evidence of the fact. The chairman of any meeting shall be entitled, both on a show of hands and on a poll, to vote in respect of the Debentures, if any, held by him.

11.7 Poll

On every Extraordinary Resolution, and on any other question submitted to a meeting when demanded by the chairman or by one or more Debentureholders or proxies for Debentureholders, a poll shall be taken in such manner and either at once or after an adjournment as the chairman shall direct. Questions other than Extraordinary Resolutions shall, if a poll be taken, be decided by the votes of the Holders of a majority of the principal amount of the Debentures represented at the meeting and voted on the poll.

11.8 Voting

On a show of hands, every Person who is present and entitled to vote, whether as a Debentureholder or as proxy for one or more Debentureholders or both, shall have one vote. On a poll, each Debentureholder present in person or represented by a proxy duly appointed by an instrument in writing shall be entitled to one vote in respect of each $1,000 principal amount of Debentures of which he shall then be the Holder. A proxy need not be a Debentureholder. In the case of joint Holders of a Debenture, any one of them present in person or by proxy at the meeting may vote in the absence of the other or others but in case more than one of them is present in person or by proxy, they shall vote together in respect of the Debentures of which they are joint Holders.

11.9 Proxies

A Debentureholder may be present and vote at any meeting of Debentureholders by an authorized representative. The Corporation (in case it convenes the meeting) or the Trustee (in any other case) for the purpose of enabling the Debentureholders to be present and vote at any meeting without producing their Debentures, and of enabling them to be present and vote at any such meeting by proxy and of lodging instruments appointing such proxies at some place other than the place where

the meeting is to be held, may from time to time make and vary such regulations as it shall think fit providing for and governing any or all of the following matters:

(a) the form of the instrument appointing a proxy, which shall be in writing, and the manner in which the same shall be executed and the production of the authority of any Person signing on behalf of a Debentureholder;

(b) the deposit of instruments appointing proxies at such place as the Trustee, the Corporation or the Debentureholder convening the meeting, as the case may be, may, in the notice convening the meeting, direct and the time, if any, before the holding of the meeting or any adjournment thereof by which the same must be deposited;

(c) the deposit of instruments appointing proxies at some approved place or places other than the place at which the meeting is to be held and enabling particulars of such instruments appointing proxies to be mailed or faxed before the meeting to the Corporation or to the Trustee and for the voting of proxies so deposited as though the instruments themselves were produced at the meeting; and

(d) generally for the calling of meetings of Debentureholders and the conduct of business thereat, to the extent not already provided for in this Indenture.

Any regulations so made shall be binding and effective and the votes given in accordance therewith shall be valid and shall be counted. Save as such regulations may provide, the only Persons who shall be recognized at any meeting as the Holders of any Debentures, or as entitled to vote or be present at the meeting in respect thereof, shall be Debentureholders and Persons whom Debentureholders have by instrument in writing duly appointed as their proxies.

11.10 Persons Entitled to Attend Meetings

The Corporation and the Trustee, by their respective employees, officers and directors, the Auditors of the Corporation and the legal advisers of the Corporation, the Trustee or any Debentureholder may attend any meeting of the Debentureholders, but shall have no vote as such.

11.11 Powers Exercisable by Extraordinary Resolution

In addition to the powers conferred upon them by any other provisions of this Indenture or by law, a meeting of the Debentureholders shall have the following powers exercisable from time to time by Extraordinary Resolution:

(a) power to authorize the Trustee to grant extensions of time for payment of any principal or interest on the Debentures, whether or not the principal or interest, the payment of which is extended, is at the time due or overdue;

(b) power to sanction any modification, abrogation, alteration, compromise or arrangement of the rights of the Debentureholders or the Trustee (subject to the consent of the Trustee) against the Corporation, or against its property, whether such rights arise under this Indenture or the Debentures or otherwise;

(c) power to assent to any modification of or change in or addition to or omission from the provisions contained in this Indenture or any Debenture which shall be agreed to by the Corporation and to authorize the Trustee to concur in and execute any indenture supplemental hereto embodying any modification, change, addition or omission;

(d) power to sanction any scheme for the reconstruction, reorganization or recapitalization of the Corporation or for the consolidation, amalgamation or merger of the Corporation with any other Person or for the sale, leasing, transfer or other disposition of all or substantially all of the undertaking, property and assets of the Corporation or any part thereof, provided that no such sanction shall be necessary in respect of any such transaction if the provisions of Sections 8.1 and 10.1 shall have been complied with;

(e) power to direct or authorize the Trustee to exercise any power, right, remedy or authority given to it by this Indenture in any manner specified in any such Extraordinary Resolution or to refrain from exercising any such power, right, remedy or authority;

(f) power to waive and direct the Trustee to waive any default hereunder and/or cancel any declaration made by the Trustee pursuant to Section 8.1 either unconditionally or upon any condition specified in such Extraordinary Resolution;

(g) power to restrain any Debentureholder from taking or instituting any suit, action or proceeding for the purpose of enforcing payment of the principal or interest on the Debentures, or for the execution of any trust or power hereunder;

(h) power to direct any Debentureholder who, as such, has brought any action, suit or proceeding to stay or discontinue or otherwise deal with the same upon payment, if the taking of such suit, action or proceeding shall have been permitted by Section 8.6, of the costs, charges and expenses reasonably and properly incurred by such Debentureholder in connection therewith;

(i) power to assent to any compromise or arrangement with any creditor or creditors or any class or classes of creditors, whether secured or otherwise, and with holders of any shares or other securities of the Corporation;

(j) power to appoint a committee with power and authority (subject to such limitations, if any, as may be prescribed in the resolution) to exercise, and to direct the Trustee to exercise, on behalf of the Debentureholders, such of the powers of the Debentureholders as are exercisable by Extraordinary Resolution or other resolution as shall be included in the resolution appointing the committee. The resolution making such appointment may provide for payment of the expenses and disbursements of and compensation to such committee. Such committee shall consist of such number of Persons as shall be prescribed in the resolution appointing it and the members need not be themselves Debentureholders. Every such committee may elect its chairman and may make regulations respecting its quorum, the calling of its meetings, the filling of vacancies occurring in its number and its procedure generally. Such regulations may provide that the committee may act at a

meeting at which a quorum is present or may act by minutes signed by the number of members thereof necessary to constitute a quorum. All acts of any such committee within the authority delegated to it shall be binding upon all Debentureholders. Neither the committee nor any member thereof shall be liable for any loss arising from or in connection with any action taken or omitted to be taken by them in good faith;

(k) power to remove the Trustee from office and to appoint a new Trustee or Trustees provided that no such removal shall be effective unless and until a new Trustee or Trustees shall have become bound by this Indenture;

(l) power to sanction the exchange of the Debentures for obligations of the Corporation or of any other Person formed or to be formed on terms other than provided for herein;

(m) power to require the Trustee to exercise any power, right or remedy or authority given to it by this Indenture in any manner specified in such Extraordinary Resolution, or to refrain from exercising any such power, right, remedy or authority;

(n) power to amend, alter or repeal any Extraordinary Resolution previously passed or sanctioned by the Debentureholders or by any committee appointed pursuant to Section 11.11(j).

11.12 Meaning of Extraordinary Resolution

(a) The expression "**Extraordinary Resolution**" when used in this Indenture means a resolution proposed to be passed as an Extraordinary Resolution at a meeting of Debentureholders (including an adjourned meeting) duly convened for the purpose at which the Holders of not less than 25% of the principal amount of the Debentures then outstanding are present in person or by proxy and passed by the Holders of not less than 662/3% of the principal amount of the Debentures.

(b) If, at any such meeting, the Holders of not less than 25% of the principal amount of the Debentures then outstanding are not present in person or by proxy within 30 minutes after the time appointed for the meeting, then the meeting, if convened by Debentureholders, shall be dissolved but in any other case it shall stand adjourned until the same day in the next week (unless such day is not a Business Day in which case it shall be adjourned to the next following Business Day) at the same time and place and no notice shall be required to be given in respect of such adjourned meeting. At the adjourned meeting the Debentureholders present in person or by proxy shall form a quorum and may transact the business for which the meeting was originally convened and a resolution passed at such adjourned meeting by the Holders of not less than $66^{2/3}$% of the principal amount of the Debentures present or represented by proxy at the meeting voted upon on a poll shall be an Extraordinary Resolution within the meaning of this Indenture.

(c) Votes on an Extraordinary Resolution shall always be given on a poll and no demand for a poll on an Extraordinary Resolution shall be necessary.

11.13 Powers Cumulative

Any one or more of the powers in this Indenture stated to be exercisable by the Debentureholders by Extraordinary Resolution or otherwise may be exercised from time to time and the exercise of any one or more of such powers from time to time shall not be deemed to exhaust the rights of the Debentureholders to exercise the same or any other such power or powers thereafter from time to time.

11.14 Minutes

Minutes of all resolutions and proceedings at every meeting as aforesaid shall be made, at the expense of the Corporation, and duly entered in books to be from time to time provided for that purpose by the Corporation, and any such minutes as aforesaid, if signed by the chairman of the meeting at which such resolutions were passed or proceedings had, or by the chairman of the next succeeding meeting of the Debentureholders, shall be prima facie evidence of the matters therein stated and, until the contrary is proved, every such meeting, in respect of the proceedings of which minutes shall have been made, shall be deemed to have been duly held and convened, and all resolutions passed thereat or proceedings taken thereat to have been duly passed and taken.

11.15 Instruments in Writing

All actions which may be taken and all powers that may be exercised by the Debentureholders at a meeting held as provided in this Section Article 11 may, in the case of a resolution that is not an Extraordinary Resolution, also be taken and exercised by the Holders of 50% of the principal amount of all the outstanding Debentures by an instrument in writing signed in one or more counterparts and, in the case of a resolution that is an Extraordinary Resolution, also be taken and exercised by the Holders of 662/3% of the principal amount of all the outstanding Debentures by an instrument in writing signed in one or more counterparts. The expression "Extraordinary Resolution" when used in this Indenture shall include an instrument so signed.

11.16 Binding Effect of Resolutions

Every resolution and every Extraordinary Resolution passed in accordance with the provisions of this Section Article 11 at a meeting of Debentureholders shall be binding upon all the Debentureholders, whether present at or absent from such meeting, and every instrument in writing signed by Debentureholders in accordance with Section 11.15 shall be binding upon all the Debentureholders, whether signatories thereto or not, and each and every Debentureholder and the Trustee (subject to the provisions for its indemnity herein contained) shall be bound to give effect accordingly to every such resolution, Extraordinary Resolution and instrument in writing.

11.17 Evidence of Rights Of Debentureholders

(a) Any request, direction, notice, consent or other instrument which this Indenture may require or permit to be signed or executed by the Debentureholders may be in any number of concurrent instruments of similar tenor signed or executed by such Debentureholders.

(b) The Trustee may, in its discretion, require proof of execution in cases where it deems proof desirable and may accept such proof as it shall consider proper.

ARTICLE 12
NOTICES

12.1 Notice to Corporation and Trustee

Unless herein otherwise expressly provided, any notice to be given hereunder to the Corporation or the Trustee shall be deemed to be validly given if delivered by hand, by courier or by registered mail or if transmitted by facsimile:

(a) to the Corporation:

Pyrogenesis Canada Inc.
200-1744 William
Montreal QC H3J 1R4

Attention: Chief Executive Officer
Facsimile: 514-937-5757

with a copy to:

Osler Hoskin & Harcourt LLP
1000 de la Gauchetière West
Montreal QC H3B 4W5

Attention: Jeremy Brisset
Facsimile: 514-904-8101

(b) to the Trustee:

CST Trust Company
2001 Robert-Bourassa Blvd
Suite 1600, 16th Floor
Montreal, Quebec
H3A 2A6

Attention: Director, Corporate Trust
Facsimile: (877) 715-0494

and any such notice delivered in accordance with the foregoing shall be deemed to have been received on the date of delivery or, if sent by facsimile, on the day of transmission or, if such day is not a Business Day, on the first Business Day following the day of transmission; provided that if such notice is delivered or sent by facsimile after 4:30 p.m. (local time), such notice will be deemed to be received on the next Business Day. The Corporation or Trustee, as the case may be, may from time to time notify the other in the manner provided in this Section 12.1 of a change of address which from the effective date of such notice and until changed by like notice, shall be the address of the Corporation or Trustee, as the case may be, for all purposes of this Indenture. If by reason of any interruption of mail service, actual or threatened, any notice to be given to the Trustee would reasonably be unlikely to reach its destination by the time notice by mail is deemed to have

been given pursuant to this Section 12.1, such notice shall be valid and effective only if delivered at the appropriate address in accordance with this Section 12.1.

12.2 Notice to Debentureholders

(a) All notices to be given hereunder to the Debentureholders shall be deemed to be validly given to the Holders thereof if sent by first class mail, postage prepaid, by letter or circular addressed to such Holders at their mailing addresses appearing in the registers maintained pursuant to Section Article 5 and shall be deemed to have been effectively given on the third Business Day following the day of mailing. Accidental error or omission in giving notice or accidental failure to mail notice to any Debentureholder or the inability of the Corporation or Trustee to give or mail any notice due to anything beyond the reasonable control of the Corporation or Trustee shall not invalidate any action or proceeding founded thereon.

(b) If any notice given in accordance with the foregoing Section 12.2(a) would be unlikely to reach the Debentureholders to whom it is addressed in the ordinary course of post by reason of an interruption in mail service, whether at the place of dispatch or receipt or both, the Corporation shall give such notice by publication at least twice in a national daily newspaper of general circulation.

(c) Any notice given to Debentureholders by publication shall be deemed to have been given on the day on which publication shall have been effected at least twice in the newspaper in which publication was required.

(d) All notices with respect to any Debenture held by more than one Holder may be given to whichever one of the Holders thereof is named first in the registers hereinbefore mentioned, and any notice so given shall be sufficient notice to all Persons interested in such Debenture.

ARTICLE 13
CONCERNING THE TRUSTEE

13.1 No Conflict of Interest

The Trustee represents to the Corporation that at the date of execution and delivery by it of this Indenture there exists no material conflict of interest in the role of the Trustee as a fiduciary hereunder but if, notwithstanding the provisions of this Section 13.1, such a material conflict of interest exists, or hereafter arises, the validity and enforceability of this Indenture, and the Debentures issued hereunder, shall not be affected in any manner whatsoever by reason only that such material conflict of interest exists or arises but the Trustee shall, within 90 days after ascertaining that it has a material conflict of interest, either eliminate such material conflict of interest or resign in the manner and with the effect specified in Section 13.2.

13.2 Replacement of Trustee

(a) Subject to the terms hereof, the Trustee may resign its trust and be discharged from all further duties and liabilities hereunder by giving to the Corporation 60 days' notice in writing or such shorter notice as the Corporation may accept as sufficient.

The Corporation shall have the power at any time on notice in writing to the Trustee, and the Debentureholders by Extraordinary Resolution shall have the power at any time to remove the existing Trustee and to appoint a new or successor Trustee. In the event of the Trustee resigning or being removed or being dissolved, becoming bankrupt, going into liquidation or otherwise becoming incapable of acting hereunder, the Corporation shall forthwith appoint a new Trustee unless a new Trustee has already been appointed by the Debentureholders. Failing such appointment by the Corporation, the retiring Trustee or any Debentureholder may apply to a Judge of the Superior Court of Quebec, on such notice as such Judge may direct at the Corporation's expense, for the appointment of a new Trustee but any new Trustee so appointed by the Corporation or by such court shall be subject to removal as aforesaid and the appointment of such new Trustee shall be effective only upon such new Trustee becoming bound by this Indenture. Any new Trustee appointed under any provision of this Section 13.2 shall be a corporation authorized to carry on the business of a trust company in all of the Provinces and Territories of Canada. On any new appointment the new Trustee shall be vested with the same powers, rights, duties and responsibilities as if it had been originally named herein as Trustee. Upon the written request of the successor Trustee or of the Corporation, the Trustee ceasing to act shall, upon payment of all amounts due to it pursuant to Section 7.2, execute and deliver an instrument assigning and transferring to such successor Trustee, upon the trusts herein expressed, all the rights, powers and trusts of the Trustee so ceasing to act, and shall duly assign, transfer and deliver all property and money held by such Trustee to the successor Trustee so appointed in its place. Should any deed, conveyance or instrument in writing from the Corporation be required by any new Trustee or more fully and certainly vesting in an confirming to it such estates, properties, rights, powers and trusts, then any and all such deeds, conveyances and instruments in writing shall on request of said new Trustee, be made, executed, acknowledged and delivered by the Corporation.

(b) Any company into which the Trustee may be merged or with which it may be consolidated or amalgamated or any company resulting from any merger, consolidation or amalgamation to which the Trustee shall be a party or any company succeeding to the corporate trust business of the Trustee, shall be the successor trustee under this Indenture without the execution of any instrument or any further act.

13.3 Duties of Trustee

In the exercise of the rights, duties and obligations prescribed or conferred by the terms of this Indenture, the Trustee shall act honestly and in good faith with a view to the best interests of the Holders and shall exercise that degree of care, diligence and skill that a reasonably prudent corporate trustee would exercise in comparable circumstances.

13.4 Reliance Upon Declarations, Opinions, etc.

In the exercise of its rights, duties and obligations hereunder the Trustee may, if acting in good faith, rely, as to the truth of the statements and accuracy of the opinions expressed therein, upon statutory declarations, opinions, reports or certificates furnished pursuant to any covenant, condition or requirement of this Indenture or required by the Trustee to be furnished to it in the

exercise of its rights and duties hereunder, if the Trustee examines such statutory declarations, opinions, reports or certificates and determines that they comply with Section 13.5, if applicable, and with any other applicable requirements of this Indenture. The Trustee may nevertheless, in its discretion, require further proof in cases where it deems further proof desirable. Without restricting the foregoing, the Trustee may rely on an opinion of Counsel satisfactory to the Trustee notwithstanding that it is delivered by a solicitor or firm which acts as solicitors for the Corporation.

13.5 Evidence and Authority to Trustee, Opinions, etc.

(a) The Corporation shall furnish to the Trustee evidence of compliance with the conditions precedent provided for in this Indenture relating to any action or step required or permitted to be taken by the Corporation or the Trustee under this Indenture or as a result of any obligation imposed under this Indenture, including without limitation, the certification and delivery of Debentures hereunder, the satisfaction and discharge of this Indenture and the taking of any other action to be taken by the Trustee at the request of or on the application of the Corporation, forthwith if and when (A) such evidence is required by any other Section of this Indenture to be furnished by the Trustee in accordance with the terms of this Section 13.5 or (B) the Trustee, in the exercise of its rights and duties under this Indenture, gives the Corporation written notice requiring it to furnish such evidence in relation to any particular action or obligation specified in such notice. Such evidence shall consist of:

(i) a certificate made by any one officer of the Corporation stating that any such condition precedent has been complied with in accordance with the terms of this Indenture;

(ii) in the case of a condition precedents compliance with which is, by the terms of this Indenture, made subject to review or examination by a solicitor, an opinion of Counsel that such condition precedent has been complied with in accordance with the terms of this Indenture; and

(iii) in the case of any such condition precedent compliance with which is subject to review or examination by auditors or accountants, an opinion or report of the Auditors of the Corporation whom the Trustee for such purposes hereby approves, that such condition precedent has been complied with in accordance with the terms this Indenture.

(b) Whenever such evidence relates to a matter other than the certification and delivery of Debentures and the satisfaction and discharge of this Indenture, and except as otherwise specifically provided herein, such evidence may consist of a report or opinion of any solicitor, auditor, accountant, engineer or appraiser or any other Person whose qualifications give authority to a statement made by him, provided that if such report or opinion is furnished by a trustee, officer or employer of the Corporation it shall be in the form of a statutory declaration. Such evidence shall be, so far as appropriate, in accordance with Section 13.5(a).

(c) Each statutory declaration, certificate, opinion or report with respect to compliance with a condition precedent provided for in the Indenture shall include (i) a statement by the person giving the evidence that he has read and is familiar with those provisions of this Indenture relating to the condition precedent in question, (ii) a brief statement of the nature and scope of the examination or investigation upon which the statements or opinions contained in such evidence are based, (iii) a statement that, in the belief of the person giving such evidence, he has made such examination or investigation as is necessary to enable him to make the statements or give the opinions contained or expressed therein, and (iv) a statement whether in the opinion of such person the conditions precedent in question have been complied with or satisfied.

13.6 Officer's Certificates Evidence

Except as otherwise specifically provided or prescribed by this Indenture, whenever in the administration of the provisions of this Indenture the Trustee shall deem it necessary or desirable that a matter be proved or established prior to taking or omitting any action hereunder, the Trustee, if acting in good faith, may rely upon an Officer's Certificate.

13.7 Experts, Advisers and Agents

The Trustee may:

(a) employ or retain and act and rely on the opinion or advice of or information obtained from any solicitor, auditor, valuer, engineer, surveyor, appraiser or other expert, whether obtained by the Trustee or by the Corporation, or otherwise, and shall not be liable for acting, or refusing to act, in good faith on any such opinion or advice and may pay proper and reasonable compensation for all such legal and other advice or assistance as aforesaid. The reasonable fees and expenses of Counsel and other such experts and advisers shall form part of the Trustee's fees and expenses under Section 7.2; and

(b) employ such agents and other assistants as it may reasonably require for the proper determination and discharge of its duties hereunder, and may pay reasonable remuneration for all services performed for it (and shall be entitled to receive reasonable remuneration for all services performed by it) in the discharge of the trusts hereof and compensation for all disbursements, costs and expenses made or incurred by it in the discharge of its duties hereunder and in the management of the trusts hereof any solicitors employed or consulted by the Trustee may, but need not be, solicitors for the Corporation.

13.8 Investment of Moneys Held by Trustee

(a) Upon receipt of a written direction from the Corporation, the Trustee shall invest the funds in Authorized Investments in its name in accordance with such direction. Any direction from the Corporation to the Trustee shall be in writing and shall be provided to the Trustee no later than 11:00 a.m. (Montreal time) on the day on which the investment is to be made. Any such direction received by the Trustee after 11:00 a.m. (Montreal time) or received on a non-Business Day, shall be

deemed to have been given prior to 11:00 a.m. (Montreal time) the next Business Day. For the purpose hereof, "Authorized Investments" means short term interest bearing or discount debt obligations issued or guaranteed by the Government or a Province of Canada or a Canadian chartered bank (which may include an Affiliate or related party of the Trustee) provided that such obligation is rated at least R-1 (middle) by DBRS Inc. or an equivalent rating service.

(b) In addition to any written direction to invest cash in an Authorized Investment, the Trustee may hold cash balances constituting part or all of the fund and may, but need not, invest same in its deposit department or the deposit department of one of its Affiliates.

(c) The Trustee shall not be held liable for any losses incurred in the investment of any funds in Authorized Investments, other than in the event of the gross negligence, wilful misconduct, fraud or bad faith of the Trustee.

(d) Unless and until the Trustee shall have declared the principal of and interest on the Debentures to be due and payable, the Trustee shall pay over to the Corporation all interest received by the Trustee in respect of any investments or deposits made pursuant to the provisions of this Section 13.8.

13.9 Trustee Not Ordinarily Bound

Except as otherwise specifically provided herein, the Trustee shall not, subject to Section 13.3, be bound to give notice to any Person of the execution hereof, nor to do, observe or perform or see to the observance or performance by the Corporation of any of the obligations herein imposed upon the Corporation or of the covenants on the part of the Corporation herein contained, nor in any way to supervise or interfere with the conduct of the Corporation's business, unless the Trustee shall have been required to do so in writing by the Holders of not less than 25% of the aggregate principal amount of the Debentures then outstanding or by any Extraordinary Resolution of the Debentureholders passed in accordance with the provisions contained in Section Article 11, and then only after it shall have been funded and indemnified to its satisfaction against all actions, proceedings, claims and demands to which it may render itself liable and all costs, charges, damages and expenses which it may incur by so doing. The Trustee shall not be required to take notice of any Event of Default hereunder, other than in payment of any money required by any provision hereof to be paid to it, unless and until notified in writing of such Event of Default, which notice shall distinctly specify the Event of Default desired to be brought to the attention of the Trustee and, in the absence of any such notice, the Trustee may for all purposes of this Indenture conclusively assume that the Corporation is not in Default hereunder and that no Event of Default has occurred.

13.10 Trustee Not Required to Give Security

The Trustee shall not be required to give any bond or security in respect of the execution of the trusts and powers of this Indenture or otherwise in respect of the premises.

13.11 Trustee Not Bound to Act on Corporation's Request

Except as in this Indenture otherwise specifically provided, the Trustee shall not be bound to act in accordance with any direction or request of the Corporation or of the directors until a duly authenticated copy of the instrument or resolution containing such direction or request shall have been delivered to the Trustee, and the Trustee shall be empowered to act upon any such copy purporting to be authenticated and believed by the Trustee to be genuine.

13.12 Conditions Precedent to Trustee's Obligations to Act Hereunder

(a) The obligation of the Trustee to commence or continue any act, action or proceeding for the purpose of enforcing the rights of the Trustee and of the Debentureholders hereunder shall be conditional upon the Debentureholders furnishing when required by notice in writing by the Trustee, sufficient funds to commence or continue such act, action or proceeding and indemnity reasonably satisfactory to the Trustee to protect and hold harmless the Trustee against the costs, charges and expenses and liabilities to be incurred thereby and any loss and damage it may suffer by reason thereof.

(b) None of the provisions contained in this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur financial liability in the performance of any of its duties or in the exercise of any of its rights or powers.

(c) The Trustee may, before commencing or at any time during the continuance of any such act, action or proceeding require the Debentureholders at whose instance it is acting to deposit with the Trustee the Debentures held by them for which Debentures the Trustee shall issue receipts.

13.13 Authority to Carry on Business

The Trustee represents to the Corporation that at the date of execution and delivery by it of this Indenture it is authorized to carry on the business of a trust company in the Province of Quebec but if, notwithstanding the provisions of this Section 13.13, it ceases to be so authorized to carry on business, the validity and enforceability of this Indenture and the securities issued hereunder shall not be affected in any manner whatsoever by reason only of such event but the Trustee shall, within 60 days after ceasing to be authorized to carry on the business of trust company in any of the Provinces and the Territories of Canada either become so authorized or resign in the manner and with the effect specified in Section 13.2.

13.14 Compensation and Indemnity

The Corporation is liable to, and shall indemnify and save harmless the Trustee and each of its directors, officers, employees, shareholders and agents, and each of their successors and assigns (collectively, the "**Indemnified Parties**") in respect of:

(a) any liability and all losses, damages, costs, charges and expenses sustained or incurred in respect of any action, suit or proceeding that is proposed or commenced against any Indemnified Party, as the case may be, for or in respect of any act, omission or error in respect of the trust created by this Indenture and such person's

execution of all duties and responsibilities and exercise of all powers and authorities pertaining thereto;

(b) any liability and all losses, damages, costs, charges and expenses sustained or incurred in respect of any action, suit or proceeding that is proposed or commenced against the Trustee or against such directors, officers, employees, shareholders or agents, as the case may be, in respect of the administrators providing or failing to provide service contemplated hereunder;

(c) all other costs, charges, taxes, penalties and interest in respect of unpaid taxes; and

(d) all other expenses and liabilities sustained or incurred by an Indemnified Party in respect of the administration or termination of the trust created by this Indenture;

in each case including the aggregate amount paid in reasonable settlement of any actions, suits, proceedings, investigations or claims that the reasonable fees and expenses of counsel to the Indemnified Parties that may be incurred in obtaining advice with respect to and defending any action, suit, proceeding, investigation or claim that may be made or threatened against any Indemnified Party, or that may be incurred in enforcing this indemnity, unless and to the extent any of the foregoing arise principally and directly out of the gross negligence, wilful misconduct, fraud or bad faith of the Trustee or any of its directors, officers, employees, shareholders or agents, and each of their successors and assigns in which case the provisions of this Section 13.14 shall not apply. It is understood and agreed that this indemnification shall survive the termination of this Indenture or the resignation of the Trustee.

13.15 Protection of the Trustee

The Trustee:

(a) shall not be responsible for any failure of the Corporation to make any cash payment pursuant to the terms of this Trust Indenture;

(b) shall not incur any liability or responsibility whatever or be in any way responsible for the consequence of any breach on the part of the Corporation of any of the representations, warranties or covenants herein contained or of any acts of the agents or servants of the Corporation;

(c) shall not incur any liability or responsibility whatever or be in any way responsible for the consequences of any act of negligence or fraud of its agents so long as such agents were employed in good faith;

(d) shall not incur any liability or responsibility whatever or be in any way responsible for any money deposited with any Person other than the Trustee; and shall not incur any liability or responsibility whatever or be in any way responsible for the consequences of accepting a document as genuine without further inquiry, provided such document is accepted in good faith; and

(e) shall not incur any liability for any act done or step taken or not taken or omitted by it or for any error of judgment made in good faith or for any mistake of fact or

error of law, except in cases of its gross negligence, wilful misconduct, bad faith or fraud.

13.16 Third Party Interests

The Corporation hereby represents to the Trustee that any account to be opened by, or interest to held by, the Trustee in connection with this Trust Indenture for or to the credit of the Corporation, is not intended to be used by or on behalf of any third party.

13.17 Trustee Not Bound To Act

The Trustee shall retain the right not to act and shall not be liable for refusing to act if, due to a lack of information or for any other reason whatsoever, the Trustee, in its sole judgement, determines that such act might cause it to be in non-compliance with any applicable anti-money laundering, anti-terrorist or economic sanctions legislation, regulation or guideline. Further, should the Trustee, in its sole judgement, determine at any time that its acting under this Trust Indenture has resulted in its being in non-compliance with any applicable anti-money laundering, anti-terrorist or economic sanctions legislation, regulation or guideline, then it shall have the right to resign on 10 days' written notice to the Corporation provided: (a) that the Trustee's written notice shall describe the circumstances of such non-compliance; and (b) that if such circumstances are rectified to the Trustee's satisfaction within such 10-day period, then such resignation shall not be effective.

13.18 Compliance with Privacy Laws

The parties acknowledge that federal and/or provincial legislation that addresses the protection of individuals' personal information (collectively, the "**Privacy Laws**") applies to obligations and activities under this Trust Indenture. Despite any other provision of this Trust Indenture, neither party shall take or direct any action that would contravene, or cause the other to contravene, applicable Privacy Laws. The Corporation shall, prior to transferring or causing to be transferred personal information to the Trustee, obtain and retain required consents of the relevant individuals to the collection, use and disclosure of their personal information, or shall have determined that such consents either have previously been given upon which the parties can rely or are not required under the Privacy Laws. The Trustee shall use commercially reasonable efforts to ensure that its services hereunder comply with Privacy Laws. Specifically, the Trustee agrees: (a) to have a designated chief privacy officer; (b) to maintain policies and procedures to protect personal information and to receive and respond to any privacy complaint or inquiry; (c) to use personal information solely for the purposes of providing its services under or ancillary to this Trust Indenture and not to use it for any other purpose except with the consent of or direction from the Corporation or the individual involved; (d) not to sell or otherwise improperly disclose personal information to any third party; and (e) to employ administrative, physical and technological safeguards to reasonably secure and protect personal information against loss, theft, or unauthorized access, use or modification.

13.19 Acceptance of Trust

The Trustee hereby accepts the trusts in, and accepts the appointment as trustee under, this Indenture as declared and provided for and covenants to perform its obligations as set forth herein in accordance with the terms and conditions set forth herein and to hold all rights, privileges and

benefits conferred hereby and by law in trust for the various Persons who shall from time to time be Debentureholders, subject to all the terms and conditions herein set forth.

13.20 Trust Indenture Legislation

(a) If and to the extent that any provision of this Indenture limits, qualifies or conflicts with a mandatory requirement of applicable legislation, such mandatory requirement shall prevail.

(b) The Corporation and the Trustee agree that each will, at all times in relation to this Indenture and any action to be taken hereunder, observe and comply with and be entitled to the benefits of applicable legislation.

(c) Every provision of this Indenture that by its terms relieves the Trustee of liability or entitles it to rely upon any evidence submitted to it is subject to the provisions of applicable legislation.

13.21 Force Majeure

Except for the payment obligations of the Corporation contained herein, neither party shall be liable to the other if prevented, hindered, or delayed in the performance or observance of any provision contained herein by reason of act of God, riots, terrorism, acts of war, epidemics, governmental action or judicial order, earthquakes, or any other similar causes (including, but not limited to, mechanical, electronic or communication interruptions, disruptions or failures). Performance times under this Indenture shall be extended for a period of time equivalent to the time lost because of any delay that is excusable under this Section 13.21.

ARTICLE 14
EXECUTION AND FORMAL DATE

14.1 Execution

This Indenture may be executed in several counterparts, each of which when so executed shall be deemed to be an original and such counterparts together shall constitute one and the same instrument.

14.2 Formal Date

For the purpose of convenience this Indenture may be referred to as bearing the formal date of March 30, 2015 irrespective of the actual date of execution hereof.

[THIS SPACE INTENTIONALLY LEFT BLANK]

IN WITNESS whereof the parties hereto have executed these presents under their respective corporate seals and the hands of their proper officers in that behalf.

PYROGENESIS CANADA INC.

By: *(s) P. Peter Pascali*
Name: P. Peter Pascali
Title: President and CEO

CST TRUST COMPANY

By: *(s) Nelia Andrade*
Name: Nelia Andrade
Title: Authorized Signatory

By: *(s) Francine Beauséjour*
Name: Francine Beauséjour
Title: Authorized Signatory

SCHEDULE A

FORM OF DEBENTURE

UNLESS PERMITTED UNDER SECURITIES LEGISLATION, THE HOLDER OF THIS SECURITY MUST NOT TRADE THE SECURITY BEFORE THE DATE THAT IS 4 MONTHS AND A DAY AFTER THE LATER OF MARCH 30, 2015.

PYROGENESIS CANADA INC.
DEBENTURES
DUE MARCH 30, 2018

CUSIP: 74734TAA2
ISIN: CA74734TAA21

PYROGENESIS CANADA INC. (the "**Corporation**") for value received hereby acknowledges itself indebted to ● (the "**Debentureholder**") and, subject to the provisions of the Trust Indenture (the "**Indenture**"; capitalized terms used in this Debenture and not otherwise defined shall have the meaning given in the Indenture) dated as of March 30, 2015 between the Corporation and CST Trust Company (the "**Trustee**"), promises to pay to the Debentureholder on March 30, 2018 (the "**Maturity Date**") or on such earlier date as the principal amount hereof may become due in accordance with the provisions of the Indenture, the principal sum of ● **DOLLARS** ($●) in lawful money of Canada on presentation and surrender of this Debenture at the Designated Office of the Trustee.

In the event that this Debenture is not presented for payment within two years of the Maturity Date or the Redemption Payment Date, in accordance with the Indenture, this Debenture will be void and of no further effect and the Debentureholder will have no rights in respect of this Debenture.

This Debenture evidences debentures of the Corporation issued or issuable under the provisions of the Indenture to which reference is hereby made for particulars of the rights of the Debentureholder and other holders of Debentures, the Corporation and the Trustee in respect thereof. The Debentureholder, by acceptance of this Debenture agrees to the terms and conditions as set forth in the Indenture, as if the provisions of the Indenture were herein set forth. The Corporation will furnish to the Debentureholder, on written request and without charge, a copy of the Indenture.

In accordance with the provisions of the Indenture, the Corporation shall pay interest on the principal amount hereof at a rate of 7.5% per annum from the date hereof, payable quaterly after as well as before maturity and after as well as before default and judgment, calculated simply. The calculation of interest shall commence on and include date hereof.

This Debenture is an unsecured subordinated obligation of the Corporation. All Debentures issued under the Indenture will rank *pari passu* with each other (regardless of their actual date of issue).

Subject to the provisions of the Indenture, the Debentureholder may, at its option, transfer all or any portion of the principal amount owing under this Debenture to another Person or other

Persons. A transfer may only be effected by the Debentureholder duly completing and executing the transfer form (the "**Transfer Form**") attached hereto as Exhibit I, and delivering it, together with this Debenture, to the Trustee in accordance with the provisions of the Indenture. The surrender of this Debenture, together with the duly completed Transfer Form will be deemed to have been effected only on personal delivery thereof to, or if sent by mail or other means of transmission on actual receipt thereof by, the Trustee at the Designated Office as set forth in the Indenture.

The Corporation may issue a written notice to the Debentureholder of the Corporation's intention to redeem the Debenture, provided however that the Corporation shall not have the right to redeem the Debenture until not less than 12 months after the Final Closing Date.

This Debenture has not been registered under the United States Securities Act of 1933, as amended, or the securities laws of any state of the United States.

On presentation at the Designated Office, subject to the provisions of the Indenture and on compliance with the reasonable requirements of the Trustee, this Debenture may be exchanged for two or more Debentures representing, in the aggregate the principal amount of this Debenture.

The Indenture also contains provisions making binding on all holders of Debentures outstanding thereunder resolutions passed at meetings of holders of Debentures held in accordance with the provisions of the Indenture and instruments in writing signed by holders of Debentures holding a specified aggregate principal amount of the outstanding Debentures.

Nothing contained in this Debenture, the Indenture or elsewhere shall be construed as conferring upon the Debentureholder hereof any right or interest whatsoever as a holder of Shares or any other right or interest except as herein and in the Indenture expressly provided. In the event of any discrepancy between anything contained in this Debenture and the terms and conditions of the Indenture, the terms and conditions of the Indenture shall govern.

Time is of the essence hereof.

This Debenture will not be valid for any purpose until it has been countersigned by or on behalf of the Trustee from time to time under the Indenture.

The parties hereto have declared that they have required that these presents and all other documents related hereto be in the English language. *Les parties aux présentes déclarent qu'elles ont exigé que la présente convention, de même que tous les documents s'y rapportant, soient rédigés en anglais.*

IN WITNESS WHEREOF the Corporation has caused this Debenture to be signed by its authorized signatories as of March 30, 2015.

[*Signature page follows*]

PYROGENESIS CANADA INC.

By: *(s) P. Peter Pascali*
Name: P. Peter Pascali
Title: President and CEO

TRUSTEE'S CERTIFICATE

This Debenture is one of the Debentures due March 30, 2018 referred to in the Indenture within mentioned.

Dated March 30, 2015.

CST TRUST COMPANY, as Trustee

By: *(s) Nelia Andrade*
Name: Nelia Andrade
Title: Authorized Signatory

By: *(s) Francine Beauséjour*
Name: Francine Beauséjour
Title: Authorized Signatory

EXHIBIT 1
TRANSFER FORM

CST Trust Company
2001 University St., Suite 1600
Montreal, QC H3A 2A6

FOR VALUE RECEIVED the undersigned hereby sells, assigns and transfers to _____
_____(print name and address) the Debentures represented by this Debenture Certificate (or $_____ principal amount hereof*) and hereby irrevocable constitutes and appoints _____ as its attorney with full power of substitution to transfer the said securities on the appropriate register of the Trustee.

*If less than the full principal amount of the within Debenture is to be transferred, indicate in the space provided the principal amount to be transferred.

DATED this ____ day of_____, 20____.

SPACE FOR GUARANTEES OF SIGNATURES (BELOW)

_____

Guarantor's Signature/Stamp

_____

Signature of Transferor

_____

Name of Transferor

CERTAIN REQUIREMENTS RELATING TO TRANSFERS – READ CAREFULLY

The signature(s) of the transferor(s) must correspond with the name(s) as written upon the face of this certificate(s), in every particular, without alteration or enlargement, or any change whatsoever. The signature(s) on this form must be guaranteed in accordance with the transfer agent's then current guidelines and requirements at the time of transfer. Notarized or witnessed signatures are not acceptable as guaranteed signatures. As at the time of closing, you may choose one of the following methods (although subject to change in accordance with industry practice and standards):

- **Canada and the USA:** A Medallion Signature Guarantee obtained from a member of an acceptable Medallion Signature Guarantee Program (STAMP, SEMP, NYSE MSP). Many commercial banks, savings banks, credit unions, and all broker dealers participate in a Medallion Signature Guarantee Program. The Guarantor must affix a stamp bearing the actual words "Medallion Guaranteed", with the correct prefix covering the face value of the certificate.

- **Canada:** A Signature Guarantee obtained from the Guarantor must affix a stamp bearing the actual words "Signature Guaranteed". Signature Guarantees are not accepted from Treasury Branches, Credit Unions or Caisse Populaires unless they are members of a Medallion Signature Guarantee Program. For corporate holders, corporate signing resolutions, including certificate of incumbency, are also required to accompany the transfer, unless there is a "Signature & Authority to Sign Guarantee" Stamp affixed to the transfer (as opposed to a "Signature Guarantee" Stamp) obtained from an authorized officer of a major Canadian Schedule 1 chartered bank.

- **Outside North America:** For holders located outside North America, present the certificates(s) and/or document(s) that require a guarantee to a local financial institution that has a corresponding Canadian or American affiliate which is a member of an acceptable Medallion Signature Guarantee Program. The corresponding affiliate will arrange for the signature to be over-guaranteed.

OR

The signature(s) of the transferor(s) must correspond with the name(s) as written upon the face of this certificate(s), in every particular, without alteration or enlargement, or any change whatsoever. The signature(s) on this form must be guaranteed by an authorized officer of a major Canadian Schedule 1 chartered bank whose sample signature(s) are on file with the transfer agent, or by a member of an acceptable Medallion Signature Guarantee Program. Notarized or witnessed signatures are not acceptable as guaranteed signatures. The Guarantor must affix a stamp bearing the actual words: "SIGNATURE GUARANTEED", "MEDALLION GUARANTEED" OR "SIGNATURE & AUTHORITY TO SIGN GUARANTEE", all in accordance with the transfer agent's then current guidelines and requirements at the time of transfer. For corporate holders, corporate signing resolutions, including certificate of incumbency, will also be required to accompany the transfer unless there is a "SIGNATURE & AUTHORITY TO SIGN GUARANTEE" Stamp affixed to the Form of Transfer.

SCHEDULE B

FORM OF REDEMPTION NOTICE
TO THE DEBENTURE INDENTURE BETWEEN
PYROGENESIS CANADA INC. AND CST TRUST COMPANY

PYROGENESIS CANADA INC.
7.5% CONVERTIBLE UNSECURED SUBORDINATED DEBENTURES REDEMPTION NOTICE

To: The holder of a 7.5% Convertible Unsecured Subordinated Debentures (the "**Debentures**") of Pyrogenesis Canada Inc. (the "**Corporation**")

Note: All capitalized terms used herein have the meaning ascribed thereto in the Indenture mentioned below, unless otherwise indicated.

Notice is hereby given pursuant to Section 2.2(e) of the debenture indenture (the "**Indenture**") dated as of March 30, 2015 between the Corporation and CST Trust Company (the "**Trustee**"), that the aggregate principal amount of $● of the $● of Debentures outstanding will be redeemed as of ● (the "**Redemption Date**"), upon payment of a redemption amount of $● for each $● principal amount of Debentures, being equal to the aggregate of (i) $●, (ii) all accrued and unpaid interest hereon and if applicable in accordance with Section 2.2(e) of the Indenture (iii) any interest to be accrued (but not yet accrued as of the Redemption Date) thereon up until the Maturity Date (collectively, the "**Redemption Price**").

The Redemption Price will be payable upon presentation and surrender of the Debentures called for redemption at the following corporate trust office:

CST Trust Company
2001 University St.
Suite 1600
Montréal, QC H3A 2A6
Attention: Director, Corporate Trust Services

The interest upon the principal amount of Debentures called for redemption shall cease to be payable from and after the Redemption Date, unless payment of the Redemption Price shall not be made on presentation for surrender of such Debentures at the above-mentioned corporate trust office on or after the Redemption Date or prior to the setting aside of the Total Redemption Price pursuant to the Indenture.

DATED: _____

PYROGENESIS CANADA INC.

_____
Name:
Title:

SCHEDULE C

FORM OF NOTICE OF CONVERSION
TO THE DEBENTURE INDENTURE BETWEEN
PYROGENESIS CANADA INC. AND
CST TRUST COMPANY
CONVERSION NOTICE

TO: PYROGENESIS CANADA INC.

Note: All capitalized terms used herein have the meaning ascribed thereto in the Indenture mentioned below, unless otherwise indicated.

The undersigned registered holder of 7.5% Convertible Unsecured Subordinated Debentures (the "**Debentures**") in the principal amount of $● bearing CUSIP 74734TAA2 (ISIN CA 74734TAA21) irrevocably elects to convert such Debentures (or $● principal amount thereof) in accordance with the terms of the Indenture referred to in such Debentures and tenders herewith the Debentures, and, if applicable, directs that the Common Shares of Pyrogenesis Canada Inc. issuable upon a conversion be issued and delivered to the person indicated below. (If Common Shares are to be issued in the name of a person other than the holder, all requisite transfer taxes must be tendered by the undersigned).

Dated: _____

_____
[Name of Registered Holder]

If less than the full principal amount of the Debentures, indicate in the space provided the principal amount (which must be $1,000 or integral multiples thereof).

NOTE: If Common Shares are to be issued in the name of a person other than the holder, the signature must be guaranteed by a Schedule I Canadian chartered bank or by a member of an acceptable Medallion Guarantee Program. The Guarantor must affix a stamp bearing the actual words: "SIGNATURE GUARANTEED".

(Print name in which Common Shares are to be issued, delivered and registered)

Name: _____

_____

(Address)

_____

(City, Province and Postal Code)

Name of guarantor: _____

Authorized signature: