

**CHARTER OF THE COMPENSATION COMMITTEE
of the Board of Directors
of Peplin, Inc.**

This Compensation Committee Charter (this “Charter”) was adopted by the Board of Directors (the “Board”) of Peplin, Inc. (the “Company”) on July 31, 2007.

I. Purpose

The purpose of the Compensation Committee (the “Committee”) of the Board of the Company is (1) to discharge the Board’s responsibilities relating to compensation of the Company’s executives, including by designing (in consultation with management or the Board), recommending to the Board for approval, and evaluating the compensation plans, policies and programs of the Company and (2) to produce an annual report on executive compensation for inclusion in the Company’s proxy materials in accordance with applicable rules and regulations. The Committee shall ensure that compensation programs are designed to encourage high performance, promote accountability and assure that employee interests are aligned with the interests of the Company’s stockholders.

In addition to the powers and responsibilities expressly delegated to the Committee in this Charter, the Committee may exercise any other powers and carry out any other responsibilities delegated to it by the Board from time to time consistent with the Company’s bylaws. The powers and responsibilities delegated by the Board to the Committee in this Charter or otherwise shall be exercised and carried out by the Committee as it deems appropriate without requirement of Board approval, and any decision made by the Committee (including any decision to exercise or refrain from exercising any of the powers delegated to the Committee hereunder) shall be at the Committee’s sole discretion. While acting within the scope of the powers and responsibilities delegated to it, the Committee shall have and may exercise all the powers and authority of the Board. To the fullest extent permitted by law, the Committee shall have the power to determine which matters are within the scope of the powers and responsibilities delegated to it.

II. Membership

The Committee shall be composed of at least two directors as determined by the Board, none of whom shall be an employee of the Company and each of whom shall (1) satisfy the independence requirements of the Nasdaq Global Market, (2) be a “non-employee director” within the meaning of Rule 16b-3 of the Securities Exchange Act of 1934, as amended (the “1934 Act”), and (3) be an “outside director” under the regulations promulgated under Section 162(m) of the Internal Revenue Code of 1986, as amended (the “Code”).

The members of the Committee, including the Chair of the Committee (the “Chair”), shall be appointed by the Board. Committee members may be removed from the Committee, with or without cause, by the Board. Any action duly taken by the Committee shall be valid and effective, whether or not the members of the Committee at the time of such action are later determined not to have satisfied the requirements for membership provided herein.

III. Meetings and Procedures

The Chair (or in his or her absence, a member designated by the Chair) shall preside at each meeting of the Committee and set the agendas for Committee meetings. The Committee shall have the authority to establish its own rules and procedures for notice and conduct of its meetings so long as they are not inconsistent with any provisions of the Company's bylaws that are applicable to the Committee.

The Committee shall meet on a regularly scheduled basis at least two times per year and more frequently as the Committee deems necessary or desirable.

The Committee may, at its discretion, include in its meetings members of the Company's management, non-management directors that are not members of the Committee, representatives of the independent auditor, the internal auditor, members of the Company's legal, tax, human resources or accounting departments, any other financial personnel employed or retained by the Company or any other person whose presence the Committee believes to be desirable and appropriate. Notwithstanding the foregoing, the Chief Executive Officer may not be present during voting or deliberations concerning his or her compensation, and the Committee may exclude from its meetings any persons it deems appropriate, including but not limited to, any non-management director who is not a member of the Committee.

The Committee shall have the sole authority, as it deems appropriate, to retain and/or replace, as needed, any independent counsel, compensation and benefits consultants and other outside experts or advisors as the Committee believes to be necessary or appropriate. The Committee may also utilize the services of the Company's regular legal counsel or other advisors to the Company. The Company shall provide for appropriate funding, as determined by the Committee in its sole discretion, for payment of compensation to any such persons retained by the Committee.

The Committee shall meet with the Chief Executive Officer, and any other corporate officers as the Committee deems appropriate, to discuss and review the performance criteria and compensation levels of key executives. The Committee shall not, in any event, discuss the compensation level or performance of any executive in any meeting at which such executive is present.

The Chair shall report to the Board following meetings of the Committee and as otherwise requested by the Chairman of the Board.

IV. Duties and Responsibilities

1. The Committee shall, at least annually, review the compensation philosophy of the Company, including the policies and strategy relative to executive compensation, including the mix of base salary, short-term and long-term incentive compensation within the context of state guidelines for compensation relative to peer companies.

2. The Committee shall, at least annually, review and approve corporate goals and objectives relating to the compensation of the Chief Executive Officer, evaluate the performance of the Chief Executive Officer in light of those goals and objectives and determine and approve

the compensation of the Chief Executive Officer based on such evaluation. The Committee shall have sole authority to determine the Chief Executive Officer's compensation.

3. The Committee shall, at least annually, review and approve all compensation for all other officers (as such term is defined in Rule 16a-1, promulgated under the 1934 Act), directors and shall review and approve general compensation programs and policies for all other employees of the Company or its subsidiaries with a base salary greater than or equal to \$100,000.

4. The Committee shall make recommendations to the Board with respect to non-Chief Executive Officer compensation and shall review and approve all officers' employment agreements and severance arrangements.

5. The Committee shall, at least annually, review and recommend to the Board compensation for non-management directors' service on the Board and any committees. Such evaluation shall take into consideration the compensation paid to directors of comparable companies. In addition, the Committee shall consider the appropriate additional compensation non-management directors should receive for service as chairs of the Board or committees thereof.

6. The Committee is empowered to investigate any matter brought to its attention.

7. The Committee shall periodically manage and review all annual bonus, long-term incentive compensation, stock option, employee pension and welfare benefit plans (including 401(k), employee stock purchase plan, long-term incentive plan, management incentive plan and others), and with respect to each plan shall have responsibility for:

(i) general administration;

(ii) setting performance targets under all annual bonus and long-term incentive compensation plans as appropriate and committing to writing any and all performance targets for all executive officers who may be "covered employees" under Section 162(m) of the Code within the first 90 days of the performance period to which such target relates or, if shorter, within the period provided by Section 162(m) of the Code in order for such target to be "pre-established" within the meaning of Section 162(m);

(iii) certifying that any and all performance targets used for any performance-based equity compensation plans have been met before payment of any executive bonus or compensation or exercise of any executive award granted under any such plan(s);

(iv) approving all amendments to, and terminations of, all compensation plans and any awards under such plans;

(v) granting any awards under any performance-based annual bonus, long-term incentive compensation and equity compensation plans to executive officers or current employees with the potential to become the Chief Executive Officer or an executive officer, including stock options and other equity rights (e.g., restricted stock, stock purchase rights);

(vi) approving which executive officers are entitled to awards under the Company's stock option plan(s);

(vii) making recommendations to the Board with respect to awards to the Company's directors under the Company's equity incentive plan(s); and

(viii) repurchasing securities from terminated employees, other than ordinary course repurchases of shares issued upon the early exercise of stock options in connection with the termination of an employee's employment.

All plan reviews should include reviewing the plan's administrative costs, reviewing current plan features relative to any proposed new features, and assessing the performance of the plan's internal and external administrators if any duties have been delegated. No adoption, amendment or termination of any compensation plan under which stock may be issued or in which a member of the Board may be a participant shall be effective unless it is approved by the Board and, to the extent required by law, by the stockholders. No adoption, amendment or termination of any compensation may be made that violates this Charter or any other committee charter of the Company.

8. The Committee shall establish and periodically review policies concerning the grant of non-cash compensation and perquisite benefits.

9. The Committee shall periodically review the need for a Company policy regarding compensation paid to the Company's executive officers in excess of limits deductible under Section 162(m) of the Code.

10. The Committee shall determine the Company's policy with respect to change of control or "parachute" arrangements.

11. The Committee shall manage and review executive officer and director indemnification and insurance matters.

12. The Committee may manage and review any employee loan. As a general policy, the Committee shall not approve any loans to employees.

13. The Committee shall prepare and approve the Report of the Compensation Committee to be included as part of the Company's annual proxy statement (the "Proxy Statement Report").

14. The Committee shall prepare an annual report on executive compensation to the Company's stockholders for inclusion in the Proxy Statement Report for the Company's annual meeting in accordance with the rules and regulations of the Securities and Exchange Commission.

14. The Committee shall monitor the Company's compliance with the requirements of the Sarbanes Oxley Act of 2002 and other applicable laws, regulations and rules relating to compensation arrangements for directors and executive officers.

15. The Committee shall evaluate its own performance on an annual basis, including its compliance with this Charter, and provide any written material with respect to such evaluation to the Board, including any recommendations for changes in procedures or policies governing the Committee. The Committee shall conduct such evaluation and review in such manner as it deems appropriate.

16. The Committee shall review and reassess this Charter at least annually and submit any recommended changes to the Board for its consideration.

17. The Committee shall review any other duties or responsibilities delegated to the Committee by the Board from time to time relating to the Company's compensation programs.

18. In addition to the foregoing, the Committee shall perform such other functions and have such powers as may be necessary or appropriate to the efficient discharge of the foregoing.

V. Delegation of Duties

In fulfilling its responsibilities, the Committee shall be entitled to delegate any or all of its responsibilities to a subcommittee of the Committee, except that it shall not delegate its responsibilities set forth in paragraphs 3 and 7 of Section IV above or for any matters that involve executive compensation or any matters where it has determined such compensation is intended to comply with Section 162(m) of the Code by virtue of being approved by a committee of "outside directors" or is intended to be exempt from Section 16(b) under the 1934 Act pursuant to Rule 16b-3 by virtue of being approved by a committee of "non-employee directors."

VI. Amendment

This Charter may be amended only with the approval of a majority of the Board.