

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

At the September 10, 2007 annual meeting of stockholders (“Annual Meeting”), the stockholders of Ionatron, Inc. (the “Company”), approved the proposals set forth in the Company’s proxy statement relating to the Annual Meeting, including the proposal to approve the Company’s 2007 Stock Incentive Plan (the “2007 Plan”), which became effective on that date.

The 2007 Plan provides that it will be administered by the Company’s Board of Directors (“Board”) or a committee of two or more members of the Board appointed by the Board. The administrator will generally have the authority to administer the 2007 Plan, determine participants who will be granted awards under the 2007 Plan, the size and types of awards, the terms and conditions of awards and the form and content of the award agreements representing awards.

The 2007 Plan provides for the grant of any or all of the following types of awards: (a) stock options, (b) restricted stock, (c) deferred stock, (d) stock appreciation rights and (e) other stock-based awards. Awards may be granted singly, in combination, or in tandem. Subject to anti-dilution adjustments as provided in the 2007 Plan, (i) the 2007 Plan provides for a total of 10,000,000 shares of the Company’s common stock to be available for distribution pursuant to the 2007 Plan, (ii) the maximum number of shares of the Company’s common stock with respect to which stock options, restricted stock, deferred stock, stock appreciation rights or other stock-based awards may be granted or measured to any participant under the 2007 Plan during any calendar year or part of a year may not exceed 4,000,000 shares; (iii) the aggregate maximum number of shares of common stock that are available for grant or award during the first five (5) years of the 2007 Plan will be 5,000,000 shares, and (iv) the maximum number of shares of common stock available for grant or award during any consecutive twelve (12)-month period, subject to the aggregate maximum, shall be 1,000,000 shares during the first two years of the 2007 Plan and 2,000,000 shares during the third through fifth years of the 2007 Plan.

Awards under the 2007 Plan may be granted to employees, directors, consultants and advisors of the Company and its subsidiaries. However, only employees of the Company and its subsidiaries will be eligible to receive options that are designated as incentive stock options.

The description of the 2007 Plan described in this report does not purport to be complete and is qualified in its entirety by the language in the 2007 Plan, which is incorporated herein by reference to Appendix B of the Company’s definitive proxy statement on Schedule 14A filed with the Securities and Exchange Commission on August 9, 2007.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

IONATRON, INC.

Date: September 11, 2007

By: /s/ Kenneth M. Wallace

Kenneth M. Wallace
Chief Financial Officer