UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): July 13, 2005

Tegal Corporation

(Exact name of Registrant as Specified in its Charter)

Delaware (State or other jurisdiction of incorporation) 000-26824 (Commission File Number) 68-0370244 (I.R.S. Employer Identification No.)

2201 South McDowell Boulevard Petaluma, California 94954 (Address of Principal Executive Offices)

(707) 763-5600 (Registrant's telephone number, including area code)

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01. Entry into a Material Definitive Agreement

On July 13, 2005, Tegal Corporation (the "Company") amended its stockholder rights plan. The Second Amendment to Rights Agreement between the Company and Registrar and Transfer Company, as rights agent, is filed as an exhibit hereto and is incorporated by reference herein.

Item 9.01. Financial Statements and Exhibits

(c) Exhibits.

Exhibit No.

99.1 Second Amendment to Rights Agreement between Tegal Corporation and Registrar and Transfer Company

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 hereunto duly authorized.

Date: July 18, 2005 TEGAL CORPORATION

By: /s/ Thomas R. Mika
Name: Thomas R. Mika
Title: Chief Executive Officer

EXHIBIT INDEX

Exhibit No. Description

99.1 Second Amendment to Rights Agreement between Tegal Corporation

and Registrar and Transfer Company

SECOND AMENDMENT TO RIGHTS AGREEMENT

This SECOND AMENDMENT TO RIGHTS AGREEMENT (the "Second Amendment"), to Rights Agreement dated as of June 11, 1996 (the "Rights Agreement"), between Tegal Corporation, a Delaware corporation (the "Company"), and Registrar and Transfer Company, a New Jersey corporation (the "Rights Agent"), as successor Rights Agent to Chasemellon Shareholder Services, L.L.C., a New Jersey limited liability company (the "Predecessor Rights Agent"), is made and entered into as of July 6, 2005. Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Rights Agreement.

WHEREAS, the Company and the Predecessor Rights Agent previously entered into the Rights Agreement and the First Amendment to Rights Agreement dated as of January 15, 1999, and the Company and the Rights Agent previously entered into the Amendment to the Rights Agreement dated as of January 18, 2005; and

WHEREAS, pursuant to Section 26 of the Rights Agreement, the Company and the Rights Agent may from time to time supplement or amend any provision of the Rights Agreement in accordance with the terms of such Section 26.

NOW, THEREFORE, in consideration of the foregoing premises and mutual agreements set forth in this Amendment, the parties hereby amend the Rights Agreement as follows:

- Section 1.1 of the Rights Agreement is hereby restated in its entirety as follows: 1.
 - 1.1 "Acquiring Person" shall mean any Person (as such term is hereinafter defined) who or which, together with all Affiliates and Associates (as such terms are hereinafter defined) of such Person, shall be the Beneficial Owner (as such term is hereinafter defined) of 15% or more of the Common Shares of the Company then outstanding but shall not include (i) the Company, any Subsidiary of the Company or any employee benefit plan of the Company or any Subsidiary of the Company or any entity holding shares of capital stock of the Company for or pursuant to the terms of any such plan, in its capacity as an agent or trustee for any such plan or (ii) any Existing Holder. "Existing Holder" shall mean each Special Situations Fund III, L.P. together with all of its Affiliates and Associates. Notwithstanding the foregoing, no Person shall become an "Acquiring Person" as the result of an acquisition of Common Shares by the Company which, by reducing the number of shares outstanding, increases the proportionate number of shares beneficially owned by such Person to 15% or more of the Common Shares of the Company then outstanding; provided, however, that if a Person shall become the Beneficial Owner of 15% or more of the Common Shares of the Company then outstanding solely by reason of share purchases by the Company and shall, after such share purchases by the Company, become the Beneficial Owner of any additional Common Shares of the Company, then such Person shall be deemed to be an "Acquiring Person." Notwithstanding the foregoing, if the Board of Directors of the Company determines in good faith that a Person who would otherwise be an "Acquiring Person," as defined pursuant to the foregoing provisions of this Section 1.1, has become such inadvertently and such Person divests as promptly as practicable a sufficient number of Common Shares so that such Person would not longer be an Acquiring Person, as defined pursuant to the foregoing provisions of this Section 1.1, then such Person shall not be deemed to be or have become an "Acquiring Person" at any time for any purposes of this Agreement.

Notwithstanding anything in this definition of "Acquiring Person" to the contrary, if, at the time of the adoption of this Agreement, any Person together with any of his Affiliates or Associates is the Beneficial Owner of 15% or more of the shares of Common Stock then outstanding, such Person shall not become an Acquiring Person unless and until such time as (i) such Person or Affiliate or Associate of such Person shall purchase or otherwise become the Beneficial Owner of any additional shares of Common Stock (less any shares referred to in clause (ii)) or (ii) any other Person or Persons who is or are the Beneficial Owner of an aggregate of any additional shares of Common Stock (less any shares referred to in clause (i)) shall become an Affiliate or Associate of such Person and as a result of either clause (i) or (ii), such Person shall together with any of his Affiliates or Associates is the Beneficial Owner of 15% or more of the shares of Common Stock then outstanding.

- This Second Amendment shall be effective as of the date hereof and, except as expressly set forth herein, the Rights Agreement shall remain in full force and effect and be otherwise unaffected hereby.
- This Second Amendment may be executed in any number of counterparts, each of which, when executed, shall be deemed to be an original and all such counterparts shall together constitute one and the same document.

(Signature Page Follows)

IN WITNESS WHEREOF, the parties have executed this Second Amendment as of the date first written above.

TEGAL CORPORATION By: /s/ Thomas R. Mika

Name: Thomas R. Mika

Title: President and Chief Executive Officer

REGISTRAR AND TRANSFER **COMPANY**

By: /s/ William P. Tatler Name: William P. Tatler Title: Vice President