FORM 6 - K

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Report of Foreign Private Issuer Pursuant to Rule 13a - 16 or 15d - 16 of the Securities Exchange Act of 1934

As of 6/30/2011

Ternium S.A. (Translation of Registrant's name into English)

Ternium S.A.
29 Avenue de la Porte-Neuve
L-2227 Luxembourg
(352) 2668-3152
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or 40-F.

Form 20-F ü Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12G3-2(b) under the Securities Exchange Act of 1934.

Yes No ü

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): Not applicable

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The attached material is being furnished to the Securities and Exchange Commission pursuant to Rule 13a-16 and Form 6-K under the Securities Exchange Act of 1934, as amended.

This report contains Ternium S.A.'s press release announcing it has filed 2010 Form 20-F.

SIGNATURE

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.

TERNIUM S.A.

By: /s/ Pablo Brizzio Name: Pablo Brizzio

Title: Chief Financial Officer

Dated: June 30, 2011

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Ternium Files 2010 Form 20-F

Luxembourg, June 30, 2011 – Ternium S.A. (NYSE: TX), announces that it has filed its annual report on Form 20-F for the year ended December 31, 2010 with the U.S. Securities and Exchange Commission. The annual report will be made available beginning on June 30, 2011, on our website at http://txglobal.xilversite.com/en/ir/reports and may also be obtained upon request by calling +352 26 68 31 52 or +1 800 555 2470 (the latter number is toll free if you call from the United States).

About Ternium

Ternium is a leading steel company in Latin America, manufacturing and processing a wide range of flat and long steel products for customers active in the construction, home appliances, capital goods, container, food, energy and automotive industries. With its principal operations in Mexico and Argentina, Ternium serves markets in the Americas through its integrated manufacturing system and extensive distribution network. The Company has an annual production capacity of approximately ten million tons of finished steel products. More information about Ternium is available at www.ternium.com.