



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

August 17, 2012

Via E-mail

Pablo Brizzio
Chief Financial Officer
Ternium S.A.
29, Avenue de la Porte-Neuve — 3rd floor
L-2227 Luxembourg

RE: Ternium S.A.
Form 20-F for the Fiscal Year Ended December 31, 2011
Filed April 25, 2012
File No. 1-32734

Dear Mr. Brizzio:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or the filings and the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings includes the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ John Cash, for

Terence O'Brien
Accounting Branch Chief