



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-7010

Mail Stop 7010

January 5, 2009

via U.S. mail and facsimile

Daniel Novegil, Chief Executive Officer
Ternium S.A.
46A, Avenue John F. Kennedy—2nd floor
Luxembourg L-1855

**RE: Ternium S.A.
Form 20-F for the Fiscal Year Ended December 31, 2007
Filed June 25, 2008
Form 6-K as of August 5, 2008
Filed August 6, 2008
File No. 001-32734**

Dear Mr. Novegil:

We have reviewed your response letter dated December 23, 2008 and have the following additional comments.

Form 20-F for the Fiscal Year Ended December 31, 2007

Note 2 – Basis of Presentation, page F-11

1. We have read your response to prior comment 5. We note from your response that as of December 31, 2007, you indirectly own more than half of the voting power of Consorcio because your subsidiary, Hylsamex, directly owned 50% of the shares of Consorcio plus one additional share. We further note Hylsamex indirectly owned more than half of the voting power of Pena Servicios. In light of this you concluded you satisfied the requirements for consolidation under paragraph 13 of IAS 27, which presumes that control exists when the parent owns, directly or indirectly through subsidiaries, more than half of the voting power of an entity. It is unclear to us whether 50% plus one additional share gives you the control as contemplated by paragraphs 13(a) – (d) and 15. Please explain to us how 50% plus one additional share gives you the ability to appoint and replace a majority of board members and control operating and financial policies.

Furthermore, please tell us, and disclose in future filings, whether the consolidation of these entities materially impacts the 2005-2007 financial statements.

Form 6-K as of August 5, 2008

Cash Flow and Liquidity

2. We have read your response to prior comment 10. We noted in our letter dated October 31, 2008, that as of June 30, 2008, current liabilities substantially exceeded cash reserves, and that substantial deficits in operating cash flow and free cash flows were reported. We note from your Form 6-K filed November 6, 2008 that you reported similar negative results as of September 30, 2008. Given this negative trend, in future filings please disclose the amount of additional funds that you can borrow under your existing credit facilities and your ability to fund operations.

Other

3. Please respond to prior comments 6-9 from our letter dated October 31, 2008.

* * * *

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested supplemental information. Detailed response letters greatly facilitate our review. Please file your response letter on EDGAR. Please understand that we may have additional comments after reviewing responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in their filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and

Mr. Daniel Novegil
Ternium S.A.
January 5, 2009
Page 3

- 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Tracey McKoy, Staff Accountant, at (202) 551-3772 or, in her absence Al Pavot at (202) 551-3738 or the undersigned Accounting Branch Chief at (202) 551-3355 if you have questions regarding comments on the financial statements and related matters. Please contact Hagen Ganem at (202) 551-3330 with any legal related questions.

Sincerely,

Terence O'Brien
Accounting Branch Chief