



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

Mail Stop 7010

October 31, 2008

**via U.S. mail and facsimile**

Daniel Novegil, Chief Executive Officer  
Ternium S.A.  
46A, Avenue John F. Kennedy—2<sup>nd</sup> floor  
Luxembourg N4 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 the above referenced filings and have the following comments. Where indicated, we think you should revise your disclosures in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

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

Item 4. Information on the Company, page 23

Capital Expenditure Program, page 46

1. We note that you have plans to make various capital expenditures. For example, in the third full paragraph of the section discussing outstanding projects in

Argentina, you reference plans to upgrade existing production lines as well as incorporate new lines. In future filings, please provide an estimate of the total amount, in addition to sums already incurred, that you anticipate spending to complete each existing plan or project. See Item 4.D of Form 20-F.

Item 7. Major Shareholders and Related Party Transactions, page 97

A. Major Shareholders, page 97

2. In the second sentence of the third paragraph in this section, you state “None of our directors or officers is a legal or beneficial owner of any of our shares.” Based on your disclosure under “E. Share Ownership” on the previous page, this statement does not appear to be accurate. However, we do note from your accompanying disclosure that none of your directors or officers appear to be a “major shareholder,” as such term is defined under Item 7.A.1 of Form 20-F. Please resolve this discrepancy in future filings.

Item 10. Additional Information, page 103

H. Documents on Display, page 113

3. The address of the U.S. Securities and Exchange Commission, including its public reference room, is 100 F. Street, N.E., Washington DC 20549. In future filings, please correctly state the SEC’s address.

Exhibits, page 122

4. Please file your contracts with shareholders, including the supply agreement with Tenaris. See Instruction 4(b)(1) to Exhibits on Form 20-F.

Note 2 - Basis of Presentation, page F-11

5. We note you own less than 50% of Consorcio Minero Benito Juarez Peña Colorada S.A.de C.V. and Peña Colorada Servicios S.A. de C.V. Please tell us, and disclose in future filings, whether the consolidation of these entities materially impacts the 2005-2007 financial statements. Also, please clarify for us how the consolidation of these entities complies with paragraphs 13-15 of IAS 27.

Form 6-K as of August 5, 2008

Cash Flow and Liquidity

6. We note you had negative cash flows of \$42.9 million as of June 30, 2008, as compared to cash inflows of \$520.7 million as of June 30, 2007. Your analysis

attributes this material decline to the higher costs of inventory and higher volume of raw materials and goods in process, as well as to an increase of trade receivables as a result of higher prices. Please tell us and quantify the contributing factors driving the higher inventory cost and higher volume of raw materials and goods in process.

In future filings please provide a more robust discussion of material changes in your liquidity. Specifically, please discuss and quantify key drivers contributing to material increases or decreases in working capital. Furthermore, please address whether management expects higher costs of inventory and other factors to continue to have a negative impact on liquidity in future periods.

Note 12(ii), page 14

7. Please tell us whether the Sidor assets were written off as of September 30, 2008. In this regard, it appears that IAS 36 requires an impairment assessment given that the subsidiary was seized by the government on July 12, 2008. We also note that Decree Law 6058 authorizes the government to formally expropriate the shares of the subsidiary and for all disputes to be submitted to Venezuelan courts. If the government has asserted ownership and control over the business, it is not clear whether there is a reasonable basis for the you to reflect this business as an asset on your consolidated balance sheet. Further, given that the prospect of any compensation is entirely contingent on future negotiations with the government, and given the uncertainty about whether the government will consider the referenced treaties and international laws, it appears that potential recoveries should be accounted for as contingent asset pursuant to paragraphs 31-35 of IAS 37. Please clarify for us how you have applied IAS 36, IAS 37, and any other applicable accounting guidance in regards to this issue.
8. In Note 12(iv) you separately disclose discontinued operations cash flow data as operating, investing and financing activities and these cash flows are then aggregated into a single investing activities line item in the Cash Flow Statement. This presentation differs from the December 31, 2007 financial statements wherein the Cash Flow Statements reflected the discontinued operation cash flows in the operating, investing, and financing sections. Please clarify for us the basis for this change in presentation.

Note 6 – Other financial income (expense), net, page 10

9. We note you report a gain of \$138.8 million related to net foreign exchange transaction gains and change in fair value of derivative instruments for the six month period ended June 30, 2008. We understand that the increase in net foreign exchange gains (an effect that is offset to a large extent by changes in Ternium's net equity position) resulted primarily from the impact of the Mexican Peso

appreciation on Ternium's Mexican subsidiaries' US dollar denominated debt. Please quantify for us the amount of gain recognized on the US dollar denominated debt of Mexican subsidiaries during the 6 months ended June 30, 2008. Tell us also the percentage change in the value of the Mexican currency during this period. Please also clarify for us how this gain was offset by other changes in your net equity position. These clarifications should also be considered for inclusion in future filings where material foreign exchange gains and losses are reported.

10. We note that the June 30, 2008 current liabilities substantially exceed cash reserves, and that substantial deficits in operating cash flow and free cash flows were reported. Please tell us the amount of additional funds that the you can borrow under existing credit facilities. This information should also be considered for inclusion in future filings.

\* \* \* \*

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
- 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.

Mr. Daniel Novegil  
Ternium S.A.  
October 31, 2008  
Page 5

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