



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 3720

December 5, 2008

Mr. Frank Plastina  
Chief Executive Officer  
Tekelec  
5200 Paramount Parkway  
Morrisville, North Carolina 27560

**Re: Tekelec**  
**Annual Report on Form 10-K for the fiscal year ended December 31, 2007**  
**Filed February 27, 2008**  
**Definitive Proxy Materials filed on Schedule 14A on April 9, 2008**  
**File No. 0-15135**

Dear Mr. Plastina:

We have examined your filings and have the following comments. Please comply with our comments in future filings. Confirm in writing that you will do so and also explain to us how you intend to comply. Please do so within 10 business days from receipt of this letter. Please understand that after our review of your responses, we may 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 comment or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Mr. Frank Plastina  
Tekelec  
December 5, 2008  
Page 2

Form 10-K for the Fiscal Year ended December 31, 2007

Definitive Proxy Statement Incorporated By Reference Into Part III of Form 10-K

Compensation Discussion and Analysis, page 18

Cash Bonuses, page 25

1. We note that the company performance measure under your 2007 Executive Officer Bonus Plan was adjusted operating income and that you have selected this measure to use again under your 2008 Executive Officer Bonus Plan. As this measure is a non-GAAP measure, specifically disclose how you calculate the measure from your audited financial statements. See Instruction 5 to Item 402(b).
2. Please disclose the individual performance goals for each named executive officer. Also disclose the performance targets and threshold levels of the individual performance goals that must be reached for payment to each named executive officer. See Item 402(b)(2)(v) of Regulation S-K. Disclose how the compensation committee and board determined that each named executive officer achieved their individual goals. If you believe disclosure of the target and threshold levels would result in competitive harm such that the information could be omitted under Instruction 4 to Item 402(b), please provide in your response letter a detailed explanation for such conclusion. Then, in your future filings, to the extent that you have a sufficient basis to keep the information confidential, expand your discussion as to how difficult it would be for the executive or how likely it would be for the company to achieve the undisclosed performance target or threshold levels. See Instruction 4 to Item 402(b). Note that general statements regarding the level of difficulty or ease associated with achieving performance measures are not sufficient. In discussing how difficult it will be for an executive or how likely it will be for the company to achieve the target levels or other factors, you should provide as much detail as necessary without providing information that would result in competitive harm. For further guidance, please refer to Question 118.04 in our Regulation S-K Compliance and Disclosure Interpretations, available on our website at [www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm](http://www.sec.gov/divisions/corpfin/guidance/regs-kinterp.htm).

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 information. Detailed letters greatly facilitate our review. Please file your letter over EDGAR. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the

Mr. Frank Plastina  
Tekelec  
December 5, 2008  
Page 3

disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. 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 comment, please provide, in writing, a statement from the company acknowledging that

- the company is responsible for the adequacy and accuracy of the disclosure in the 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 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.

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 filings or in response to our comments on your filings.

Please contact Paul Fischer, staff attorney, at (202) 551-3415, Kathleen Krebs, Special Counsel, at (202) 551-3350, or me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spigel  
Assistant Director

cc: William H. Everett, Chief Financial Officer  
Via Facsimile, 919-380-3862