



DIVISION OF  
CORPORATION FINANCE

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

December 20, 2010

Mr. Franco Plastina  
President and Chief Executive Officer  
Tekelec  
5200 Paramount Parkway  
Morrisville, North Carolina 27560

**Re: Tekelec  
Definitive Proxy Statement  
Filed April 7, 2010  
File No. 000-15135**

Dear Mr. Plastina:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days and indicate that you will 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. If you do not believe our comments apply to your facts and circumstances or do not believe compliance in future disclosure is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Compensation Discussion and Analysis, page 19

2009 Compensation Determinations, page 25

1. In your response letter, please discuss to what extent your cash bonus and performance based restricted stock unit programs reward past performance. We note that cash bonus awards are determined in part by adjusted operating income and revenue and that performance based restricted stock unit awards are determined by revenue. We further note statements in your Form 10-K for the year ended December 31, 2009 regarding backlog. Specifically, on page 38 you state your belief that orders turn to revenue within six to fifteen months. Going forward, please address how the

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timing of your revenue recognition impacts the setting of performance targets and potentially operates to reward past performance.

Sales Commission Plan, page 32

2. Please discuss the material terms of Mr. Claudy's sales commission plan, including the percentage of sales number used to determine commissions, how the plan operates, and why you determined that percentage level was appropriate. Disclose the extent to which he achieved his sales commission target.
3. Please explain in your response letter why you reported Mr. Claudy's sales commission target in the non-equity incentive plan awards column of the grants of plan-based awards table, but reported the sales commissions he earned in the salary column of the summary compensation table. It appears that Mr. Claudy's sales commissions earned should be reported as non-equity incentive plan compensation in the summary compensation table. Please advise and tell us how you intend to report his sales commissions in future filings.

In responding to our comments, please provide a written statement from the company acknowledging that:

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

You may contact Kenya Gumbs, Staff Accountant, at 202-551-3373 or Robert Littlepage, Accountant Branch Chief, at 202-551-3361 if you have questions regarding comments on the financial statements and related matters. Please contact Jonathan Groff, Staff Attorney, at 202-551-3458 or me at 202-551-3810 with any other questions.

Sincerely,

/s/ Kathleen Krebs for  
Larry Spigel  
Assistant Director