

November 30, 2006

Mr. John J. Huber  
Latham & Watkins LLP  
555 Eleventh Street, N.W. Suite 1000  
Washington, DC 20004-1304

Re: Terayon Communication Systems, Inc. ("Terayon")  
File No.: 0-24647

Dear Mr. Huber:

We have received your letter on behalf of Terayon dated November 9, 2006 requesting this Division accept Terayon's proposal to file its December 31, 2005 annual report on Form 10-K (2005 Form 10-K) with expanded disclosures concerning restated annual and interim financial statements in lieu of filing amendments to previously filed periodic reports as described in your letter. Specifically, Terayon has proposed to file a "comprehensive" 2005 Form 10-K in lieu of filing:

- amendments to Terayon's Forms 10-K for the fiscal years ended December 31, 2004, 2003, 2002, 2001 or 2000;
- amendments to Terayon's Forms 10-Q for the quarterly periods ended March 31, 2005, and June 30, 2005 as well as the quarterly periods for the quarters in 2000, 2002, 2003 and 2004 and
- Terayon's Form 10-Q for the quarterly period ended September 30, 2005.

You have advised us that promptly after Terayon files its "comprehensive" 2005 Form 10-K, Terayon will file quarterly reports on Form 10-Q for the first three quarters of 2006. During our discussion on November 27, 2006 you indicated that Terayon would use its best efforts to have the comprehensive 2005 Form 10-K and quarterly reports for the first three quarters of 2006 on file within thirty days of receipt of this letter.

We understand that while the Audit Committee has determined that the financial statements for the years ended December 31, 2004, 2003, 2002 and 2000 should not be relied upon, and Item 4.02 8-Ks were filed disclosing the decisions of the Audit Committee, a similar determination has not been made with respect to the year ended December 31, 2001. While we understand that errors have been identified related to the year ended December 31, 2001, we also understand that these errors did not result in the Audit Committee determining that the financial

statements for 2001 should not be relied upon. Please note that you have not given us any detailed information with respect to the errors that have been identified, and therefore, the staff is not currently in a position to object or not object to the conclusions reached by the Audit Committee, particularly with respect to the year ended December 31, 2001. You have indicated that Terayon intends to adjust the previously issued financial statements for the year ended December 31, 2001 in the selected financial data presented in the 2005 Form 10-K, despite the determination made regarding the relative immateriality of the errors, in light of the fact that the years ended December 31, 2000, 2002, 2003 and 2004 are being restated.

In connection with your request, we believe it is appropriate to note that Terayon is responsible under the federal securities laws and regulations to file the required reports with the Commission and to determine the accuracy and adequacy of the information provided. To be in full compliance with the reporting requirements of the Exchange Act, Terayon is required to amend any of its filings that contain materially inaccurate financial statements and file all delinquent reports. However, this Division will accept Terayon's proposal to file the reports described in your letter, which will bring Terayon's information up to date.

With respect to the restated financial statements and related disclosures, Terayon should include within its 2005 annual report on Form 10-K the following:

- Audited restated annual financial statements for the fiscal years ended December 31, 2004 and 2003.
- For interim periods required by SK Item 302:
  - Unaudited condensed financial statements in a level of detail consistent with SX Rule 10-01(a) and (b) for each of the four quarterly periods in fiscal 2005 and 2004. Note that the information for all quarters excluding the third and fourth quarters of 2005 should be marked as restated.
- Unaudited restated (or adjusted, as applicable) selected financial data for the fiscal years ended December 31, 2002 and 2001.
- Footnotes reconciling previously filed annual and quarterly financial information to the restated financial information, on a line-by-line basis, with explanatory disclosures describing the nature of the restatements.
- Disclosures required by Item 9A which will describe all material weaknesses identified by management in connection with its assessment of the effectiveness of internal control over financial reporting for the 2005 fiscal year, and the steps management is taking to remediate them.
- Management's Discussion and Analysis, based on the restated annual and quarterly financial information, explaining Terayon's operating results, trends, and liquidity during each interim and annual period presented. Discussions relative to interim periods may be incorporated into the annual-period discussions or presented separately.
- All material information that would have been available and disclosed in Terayon's delinquent 2005 periodic reports had they been timely filed.

A number of rule and form eligibility standards under the Securities Act and the Exchange Act – such as, for example, Regulation S, Rule 144, Form S-3, and Form S-8 – require, among other things, that issuers wishing to avail themselves of that rule or form be subject to the

Terayon Communication Systems, Inc.

November 30, 2006

Page 3

Exchange Act reporting requirements and have filed all material required to be filed pursuant to Exchange Act Section 13 or 15(d) for a specified period of time (this requirement is referred to commonly as the requirement that the issuer be “current” in its Exchange Act reports). Our determination to accept the filings as described in your letter and above will not result in Terayon becoming “current” in its Exchange Act reports; rather, Terayon’s only means of satisfying that “current” reporting requirement continues to be its filing of all required materials during the period specified in a particular rule or form. For specific consideration of Terayon’s eligibility to rely on specific rules or forms going forward, please contact the Division’s Office of Chief Counsel.

Finally, please understand that this Division’s determination regarding the acceptance of the described filings does not foreclose any future enforcement action with respect to Terayon’s filings or failures to file under the Exchange Act.

Our conclusions are based solely on the information included in your letter sent on behalf of Terayon. Materially new or different facts and circumstances could result in different conclusions. If you have any questions about this letter, please contact me at (202) 551-3400.

Sincerely,

Sondra Stokes  
Associate Chief Accountant