



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

DIVISION OF  
CORPORATION FINANCE

July 17, 2015

Via E-mail

Mr. Paul F. McLaughlin  
Chairman and Chief Executive Officer  
Rudolph Technologies, Inc.  
One Rudolph Road  
P.O. Box 1000  
Flanders, New Jersey 07836

**Re: Rudolph Technologies, Inc.  
Form 10-K for the Fiscal Year ended December 31, 2014  
Filed February 20, 2015  
Form 8-K dated April 27, 2015  
Filed April 27, 2015  
File No. 1-36226**

Dear Mr. McLaughlin:

We have limited our review of your filing to the financial statements and related disclosures 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended December 31, 2014

Note 2: Summary of Significant Accounting Policies, page F-9

1. Please revise the note in future filings to disclose your accounting policy for the disclosure and recognition of legal and other contingencies. Refer to FASB ASC 235-10-50-1 and 50-3 and FASB ASC 450.

Note 7: Balance Sheet Details, page F-19

2. We note your disclosure referring to inventory “reserves” and to “net charges” recorded in cost of revenues in 2013 and 2014 relating to write-downs of inventory.
- Please explain to us how your accounting for inventory impairment is consistent with ASC330-10-35-1 and with the guidance provided in SAB Topic 5-BB.
  - Tell us what you mean by “a net charge in cost of revenues” and provide us with a sample journal entry that shows each account that is being debited and credited.
  - In future filings, please revise Note 2, Summary of Significant Accounting Policies, to clearly disclose your policy for impairments of inventory resulting from excess capacity, obsolescence, changes in price levels or other causes.

Form 8-K dated April 27, 2015

Exhibit 99.1

3. We note that the non-GAAP measures presented in the headlines (i.e., Non-GAAP EPS Exceeded Guidance) and the 2015 First Quarter Financial Highlights section of your press release are not accompanied by a presentation of equal or greater prominence of the most directly comparable U.S. GAAP measures. Please revise your future press releases filed on Form 8-K to comply with the requirements of Item 10(e)(1)(i)(A) of Regulation S-K.
4. In addition, we note that throughout the press release you refer to the adjustments you made to the GAAP amounts when calculating the non-GAAP measures as “non-GAAP charges.” That term may confuse an investor into believing that the items are not part of your GAAP results. Please revise your future press releases filed on Form 8-K to use a term that better describes the adjustments or to refer to the individual income statement line items being excluded from the GAAP measures. Please refer to Item 10(e) of Regulation S-K.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules 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.

Mr. Paul F. McLaughlin  
Rudolph Technologies, Inc.  
July 17, 2015  
Page 3

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 Gary Newberry at (202) 551-3761 or me at (202) 551-3671 with any questions.

Sincerely,

/s/ Martin James

Martin James  
Senior Assistant Chief Accountant