



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

September 5, 2017

Via E-mail

Michael P. Plisinski
Chief Executive Officer
Rudolph Technologies, Inc.
16 Jonspin Road
Wilmington, MA 01887

**Re: Rudolph Technologies, Inc.
Form 10-K for the Year Ended December 31, 2016
Filed February 16, 2017
File No. 1-36226**

Dear Mr. Plisinski:

We have completed our review of your filings. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Sincerely,

/s/ Martin James

Martin James
Senior Assistant Chief Accountant
Office of Electronics and Machinery