



DIVISION OF
CORPORATION FINANCE

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

November 2, 2012

Via Email

Gregory W. Mann
Chief Financial Officer
PLC Systems, Inc.
459 Fortune Boulevard
Milford, Massachusetts 01757

**Re: PLC Systems, Inc.
Form 10-K for the year ended December 31, 2011
Filed March 30, 2012
File No. 001-11388**

Dear Mr. Mann:

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 by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the year ended December 31, 2011

Report of Independent Registered Public Accounting Firm, page F-2

1. We note that the report of your Independent Registered Accounting Firm is dated March 30, 2011, although the report on the financial statements is for the year ended December 31, 2011. Please amend your Form 10-K to provide a properly dated report from your Independent Registered Accounting Firm.

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.

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 Eric Atallah, Staff Accountant at (202) 551-3663 or Lynn Dicker, Reviewing Accountant, at (202) 551-3616 if you have questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3643.

Sincerely,

/s/ Lynn Dicker for

Kevin L. Vaughn
Accounting Branch Chief