



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 4631

December 20, 2017

Via E-mail

Mr. Richard H. Fearon
Chief Financial and Planning Officer
Eaton Corporation plc
Eaton House, 30 Pembroke Road
Dublin 4, Ireland D04 Y0C2

**RE: Eaton Corporation plc
Form 10-K for the Year Ended December 31, 2016
Filed February 22, 2017
File No. 0-54863**

Dear Mr. Fearon:

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

Please respond to this comment 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 comment applies to your facts and circumstances, please tell us why in your response.

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

Management's Discussion and Analysis of Financial Condition and Results..., page 69

Results of Operations, page 69

1. It appears to us that the non-GAAP financial measures you identify as "Operating earnings" and "Operating earnings per ordinary share" use titles that may be confusingly similar to GAAP financial measures and may be precluded by Item 10(e)(ii)(E) of Regulation S-K. We also note the title of your non-GAAP financial measure is confusingly similar to the title of your segment profitability measure. Please confirm to us that you will revise the titles of these non-GAAP financial measures in future filings to provide an appropriate description of each measure that complies with Item 10(e).

Richard H. Fearon
Eaton Corporation plc
December 20, 2017
Page 2

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.

You may contact Ernest Greene, Staff Accountant at (202) 551-3733 or Anne McConnell, Staff Accountant at (202) 551-3709 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

/s/ John Cash

John Cash
Accounting Branch Chief
Office of Manufacturing and
Construction