Mail Stop 4631

January 25, 2018

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**
>   **Response Dated January 11, 2018**
>   **File No. 0-54863**

Dear Mr. Fearon:

We have reviewed your January 11, 2018 response to our comment letter 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. Unless we note otherwise, our references to prior comments are to comments in our December 20, 2017 letter.

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

Results of Operations, page 69

1.   We have considered your response to prior comment one; however, we continue to believe that the non-GAAP financial measures you identify as "Operating earnings" and "Operating earnings per ordinary share" use titles that are confusingly similar to GAAP financial measures. As previously requested, please revise the titles of your non-GAAP financial measures in future filings to provide an appropriate description of each measure that complies with Item 10(e) of Regulation S-K.

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