

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

Mail Stop 3030

April 1, 2016

Via E-mail
James M. Sullivan
Executive Vice President and Chief Financial Officer
Joy Global Inc.
100 East Wisconsin Ave, Suite 2780
Milwaukee, Wisconsin 53202

Re: Joy Global Inc.

Form 10-K for the Fiscal Year Ended October 30, 2015

Filed December 21, 2015

Form 10-Q for the Quarterly Period Ended January 29, 2016

Filed March 4, 2016 File No. 001-09299

Dear Mr. Sullivan:

We have reviewed your March 17, 2016 response to our comment letter and have the following comment. In our comments, 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 March 2, 2016 letter.

Form 10-Q for the Quarterly Period Ended January 29, 2016

<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>

Liquidity and Capital Resources

Goodwill and Other Intangible Assets, page 36

1. We reference your response to comment 2. We also note that you performed an interim assessment of goodwill during the fiscal quarter ended January 29, 2016 for the Surface

James M. Sullivan Joy Global Inc. April 1, 2016 Page 2

reporting unit due to the prolonged suppressed global commodity markets, its related effect on the global mining investment environment and the resulting impact on your stock price. As a result of the assessment, you determined that goodwill was not impaired. However, it appears that the Surface reporting unit may have a material amount of goodwill "at risk" of failing a future Step 1 impairment test. In future filings, please disclose the percentage by which the fair value of the "at risk" reporting unit exceeds its carrying amount at the date of the last impairment test. Please also include any additional information that may be useful to investors in assessing the likelihood of future impairment to goodwill for the at risk segment.

You may contact Kristin Lochhead at (202) 551-3664, or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Tom Jones at (202) 551-3602 with any other questions.

Sincerely,

/s/ Kate Tillan for

Martin James Senior Assistant Chief Accountant Office of Electronics and Machinery