



DIVISION OF
CORPORATION FINANCE

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

May 7, 2015

David S. Graziosi
Executive Vice President and Chief Financial Officer
Allison Transmission Holdings, Inc.
One Allison Way
Indianapolis, IN 46222

**Re: Allison Transmission Holdings, Inc.
Form 10-K for Fiscal Year Ended December 31, 2014
Filed February 20, 2015
File No. 001-35456**

Dear Graziosi:

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

Please respond to these comments 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 comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for Fiscal Year Ended December 31, 2014

Critical Accounting Policies and Significant Accounting Estimates, page 32

1. We note that you reference your significant accounting policies footnote in the financial statements for a summary of your policies concerning significant estimates. The accounting policy footnotes should generally describe the method used to apply an accounting principle, whereas the discussion in Management's Discussion and Analysis should present the judgments and uncertainties affecting the application of these policies, and the likelihood that materially different amounts would be reported under different conditions or using different assumptions. Your discussion in this section should therefore supplement, not reference, the information in your financial statement footnotes. Please refer to Section V of SEC Release No. 33-8350 for further guidance and revise your critical accounting estimates discussion accordingly.

Results of Operations, page 35

2. Please quantify, discuss, and analyze changes in cost of sales on a stand-alone basis in addition to your current discussion on gross profit. Consider quantifying and discussing the significant components of cost of sales such as aluminum and steel costs, labor, and any other components, to the extent material.

Gross Profit, page 35

3. We note your discussion addresses the change in gross profit over prior year in absolute dollar terms. Please tell us and expand your discussion to explain the reason for the 2% improvement in gross profit as a percentage of net sales over fiscal 2013 as it is not apparent from current disclosures within MD&A.

Form 10-Q for Fiscal Quarter Ended March 31, 2015

Results of Operations

Gross Profit, page 22

4. We note revenues for the three months ended March 31, 2015 increased \$10 million over the same period of fiscal 2014; however, cost of sales decreased \$6.7 million during the three months ended March 31, 2015. In this regard, please tell us and revise to disclose the underlying economic business reason(s) for the decrease in cost of sales when revenue increased resulting in a positive impact to gross profit margin of 2.4% for the quarter ended March 31, 2015.

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 comment, 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.

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You may contact Theresa Messinese at 202-551-3307 or Jean Yu at 202-551-3305 if you have questions regarding the comment on the financial statements and related matters. Please contact me at 202-551-3380 with any other questions.

Sincerely,

/s/ Lyn Shenk

Lyn Shenk
Branch Chief