

June 4, 2015

VIA EDGAR

Mr. Lyn Shenk Division of Corporation Finance United States Securities and Exchange Commission 100 F Street, N.E. Washington, D.C. 20549

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

Dear Mr. Shenk:

Allison Transmission Holdings, Inc. (the "Company" or "we") hereby submits the Company's responses to the comments of the staff of the Division of Corporation Finance (the "Staff") of the Securities and Exchange Commission (the "Commission") set forth in your letter dated May 7, 2015 regarding the Commission's review of the Company's Annual Report on Form 10-K for fiscal year ended December 31, 2014.

For the convenience of the Staff, each of the Staff's comments is reproduced below and is followed by the Company's response.

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.

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Response:

In future filings, the Company will include the text of the critical accounting estimates and the potential impact of changes in underlying assumptions related to significant accounting estimates in the MD&A, rather than via a cross reference to the disclosure in the footnotes. For example, the disclosures for the year ended December 31, 2014, shown in italics, would be as follows:

Critical Accounting Policies and Significant Accounting Estimates

The preparation of the consolidated financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of some assets and liabilities and, in some instances, the reported amounts of net sales and expenses during the applicable reporting period. Differences between actual amounts and estimates are recorded in the period identified. Estimates can require a significant amount of judgment, and a different set of judgments could result in changes to our reported results. A summary of our critical accounting estimates is included below.

Revenue Recognition

Revenue recognition contains uncertainties because it requires management to make assumptions and to apply judgment to estimate the amount of sales incentives and provision for government price reductions. Distributor and customer sales incentives, consisting of allowances and other rebates, are estimated at the time of sale based upon history and experience and are recorded as a reduction to Net sales. Incentive programs are generally product specific or region specific. Some factors used in estimating the cost of incentives include the number of transmissions that will be affected by the incentive program and rate of acceptance of any incentive program. If the actual number of affected transmissions differs from this estimate, or if a different mix of incentives is actually paid, the impact on Net sales would be recorded in the period that the change was identified. Assuming our current mix of sales incentives, a 10% change in sales incentives would have affected our earnings by approximately \$6.0 million to \$7.0 million per year for the prior three fiscal years.

Under terms of the U.S. government contracts, there are certain price reduction clauses and provisions for potential price reductions which are estimated at the time of sale based upon history and experience, and finalized after completion of U.S. government audits. Potential reductions may be attributed to a change in projected sales volumes or plant efficiencies which impact overall costs. Assuming our current level of government contracts, a 10% adjustment in our price reduction reserve, would have affected our earnings by approximately \$5.0 million to \$6.0 million per year for the prior three fiscal years.

Further information is provided in NOTE 2 to the consolidated financial statements in this Form 10-K Report.

Goodwill and Other Intangible Assets

Goodwill is tested for impairment at the reporting unit level, which is the same as our one operating and reportable segment. We have elected to perform our annual impairment test on October 31 of every year. A multi-step impairment test is performed on goodwill. In Step 0, we have the option to evaluate various qualitative factors to determine the likelihood of impairment. If determined that the fair value is more likely than not less than the carrying value, then we are required to perform Step 1. If we do not elect to perform Step 0, we can voluntarily proceed directly to Step 1. In Step 1, we perform a quantitative analysis to compare the fair value of our reporting unit to our carrying value including goodwill. If the fair value of the reporting unit exceeds the carrying value of the net assets assigned to that

unit, goodwill is not considered impaired, and we are not required to perform further testing. If the carrying value of the net assets assigned to the reporting unit exceeds the fair value of the reporting unit, then we must perform Step 2 of the impairment test in order to determine the implied fair value of the reporting unit's goodwill. If the carrying value of a reporting unit's goodwill exceeds its implied fair value, then we would record an impairment loss equal to the difference.

Our qualitative assessment contains uncertainties because it requires management to make assumptions and to apply judgment to assess business changes, economic outlook, financial trends and forecasts, growth rates, credit ratings, equity ratings, discount rates, industry data and other relevant qualitative factors.

Our quantitative analysis contains uncertainties because it is performed utilizing a discounted cash flow model which includes key assumptions, such as net sales growth derived from market information, industry reports, marketing programs and future new product introductions; operating margin improvements derived from cost reduction programs and fixed cost leverage driven by higher sales volumes; and a risk-adjusted discount rate.

Events or circumstances that could unfavorably impact the key assumptions include lower net sales driven by market conditions, our inability to execute on marketing programs and/or delay in the introduction of new products, lower gross margins as a result of market conditions or failure to obtain forecasted cost reductions, or a higher discount rate as a result of market conditions.

Goodwill impairment testing for 2014 was performed by assessing certain qualitative trends and factors. These trends and factors were compared to, and based on, the assumptions used in the quantitative assessment performed in 2013. Our 2013 impairment test indicated that our fair value of the reporting unit exceeded its carrying value by approximately 90%, indicating no impairment. After reviewing the various qualitative factors mentioned above, our 2014 annual goodwill impairment test indicated that the fair value of the reporting unit more likely than not exceeded its carrying value, indicating no impairment.

Other intangible assets have both indefinite and finite useful lives. Intangible assets with indefinite useful lives, such as our trade name, are not amortized but are tested annually for impairment. We have elected to perform our annual trade name impairment test on October 31 of every year and follow a similar multi-step impairment test that is performed on goodwill. Events or circumstances that could unfavorably impact the key assumptions include lower net sales driven by market conditions, our inability to execute on marketing programs and/or delay in introduction of new products, and higher discount rate as a result of market conditions. While unpredictable and inherently uncertain, we believe the forecast estimates are reasonable and incorporate those assumptions that similar market participants would use in their estimates of fair value. Our 2013 trade name impairment test indicated that our fair value of the trade name exceeded the carrying value by approximately 8%, indicating no impairment. After reviewing the various qualitative factors mentioned above, our 2014 trade name impairment test indicated that the fair value of our trade name more likely than not exceeded the respective carrying value, indicating no impairment.

Intangible assets with finite lives are amortized over their estimated useful lives and reviewed for impairment when circumstances change that would create a triggering event. Assumptions and estimates about future values and remaining useful lives of our intangible and other longlived assets are complex and subjective. They can be affected by a variety of factors, including external factors such as industry and economic trends, and internal factors, such as changes in our business strategy and internal forecasts. Although management believes the historical assumptions and estimates are reasonable and appropriate, different assumptions and estimates could materially impact our reported financial results.

Further information is provided in NOTE 2 and NOTE 5 to the consolidated financial statements in this Form 10-K Report.

Impairment of Long-Lived Assets

The carrying value of long-lived assets is evaluated whenever events or circumstances indicate that the carrying value of a long-lived asset may not be recoverable. Events or circumstances that would result in an impairment review primarily include a significant change in the use of an asset, or the planned sale or disposal of an asset. The asset would be considered impaired when there is no future use planned for the asset or the future net undiscounted cash flows generated by the asset or asset group are less than its carrying value. An impairment loss would be recognized based on the amount by which the carrying value exceeds fair value.

Assumptions and estimates used to determine cash flows in the evaluation of impairment and the fair values used to determine the impairment are subject to a degree of judgment and complexity. Any changes to the assumptions and estimates resulting from changes in actual results or market conditions from those anticipated may affect the carrying value of long-lived assets and could result in an impairment charge.

As a result of events and circumstances in the fourth quarter of 2014, we reviewed certain of our long-lived assets related to the production of the H3000 and H4000 hybrid-propulsion systems, resulting in a \$15.4 million loss recorded for the year ended December 31, 2014. The loss, determined by using future net discounted cash flows, included approximately \$1.7 million of accrued expenses related to the impairment of the long-lived assets. Deteriorating market conditions for hybrid-propulsion vehicles, principally as a result of decreased fuel costs, alternative fuels and other technologies, significantly contributed to the future cash flows of the related assets being less than the carrying value of those assets.

Warranty

Provisions for estimated expenses related to product warranties are made at the time products are sold. Warranty claims arise when a transmission fails while in service during the relevant warranty period. The warranty reserve is adjusted in Selling, general and administrative expenses based on our current and historical warranty claims paid and associated repair costs. These estimates are established using historical information including the nature, frequency, and average cost of warranty claims and are adjusted as actual information becomes available. From time to time, we may initiate a specific field action program. As a result of the uncertainty surrounding the nature and frequency of specific field action programs, the liability for such programs is recorded when we commit to an action. We review and assess the liability for these programs on a quarterly basis. We also assess our ability to recover certain costs from our suppliers and record a receivable from the supplier when we believe a recovery is probable. Warranty costs may differ from those estimated if actual claim rates are higher or lower than our historical rates. Further information is provided in NOTE 9 to our consolidated financial statements in this Form 10-K Report which contains a summary of the activity in our warranty liability account for 2014 and 2013 including adjustments to pre-existing warranties.

Pension and Post-retirement Benefit Plans

Pension and other post-retirement benefits ("OPEB") costs are based upon various actuarial assumptions and methodologies as prescribed by authoritative accounting guidance. These assumptions include discount rates, expected return on plan assets, health care cost trend rates, inflation, rate of compensation increases, population demographics, mortality rates and other factors. We review all actuarial assumptions on an annual basis.

A change in the discount rate can have a significant impact on determining our benefit obligations. Our current discount rate is determined by matching the plans projected cash flows to a yield curve based on long-term, fixed income debt instruments available as of the measurement date of December 31, 2014. The effect of a one percentage point decrease in the assumed discount rate would result in an increase in the December 31, 2014 defined benefit pension plans obligation of approximately \$20.0 million. Similarly, a one percentage point decrease in the assumed discount rate would result in an increase in the December 31, 2014 OPEB obligation of approximately \$23.7 million.

Further information is provided in NOTE 13 to the consolidated financial statements in this Form 10-K Report which contains our review on various actuarial assumptions.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the expected future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. The future tax benefits associated with operating loss and tax credit carryforwards are recognized as deferred tax assets. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Excluding net operating loss carryforwards, our expected tax payments would have increased by approximately \$40.0 million for the year ended December 31, 2014. If we continue to generate taxable income, we expect to utilize the remaining U.S. federal net operating loss carryforwards as early as the first quarter of 2016.

The need to establish a valuation allowance against the deferred tax assets is assessed periodically based on a more-likely-than-not realization threshold, in accordance with the FASB's authoritative accounting guidance on income taxes. Appropriate consideration is given to all positive and negative evidence related to that realization. This assessment considers, among other matters, the nature, frequency and severity of recent losses, forecasts of future profitability, the duration of statutory carryforward periods, and experience with tax attributes expiring unused and tax planning alternatives. The weight given to these considerations depends upon the degree to which they can be objectively verified.

Further information on income taxes is provided in NOTE 15 to the consolidated financial statements in this Form 10-K Report.

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.

Response:

In response to the Staff's comment, in future filings, the Company will enhance and expand its disclosures regarding Cost of Sales in the "Results of Operations" section of the MD&A in Item 7 in addition to our disclosure in "Key Components of our Results of Operations" and will quantify and discuss the significant components of Cost of Sales that cause this line item to materially vary (or not to vary when expected to) between comparative periods. For example, the additional disclosures for the year ended December 31, 2014, shown in italics, relating to Cost of Sales would be as follows:

Cost of sales

Cost of sales for the year ended December 31, 2014 was \$1,151.5 million compared to \$1,084.9 million for the year ended December 31, 2013, an increase of 6%. The increase was principally driven by \$45.3 million related to increased direct material costs, \$17.3 million of higher overhead costs and \$4.0 million of higher direct labor costs, in each case commensurate with increased sales volume and consistent with historical trends for these three cost of sales components. The increase in each of these cost of sales components was consistent with historical trends and management's expectations given the respective change in sales volume.

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In addition, in future filings the Company will add a Cost of Sales line to the Results of Operations table presented in Management's Discussion and Analysis in Item 7.

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.

Response:

In response to the Staff's comment, in future filings the Company will enhance and expand its disclosures regarding Gross Profit. For example, the additional disclosures for the year ended December 31, 2014, shown in italics, relating to Gross Profit would be as follows:

Gross profit

Gross profit for the year ended December 31, 2014 was \$975.9 million compared to \$841.9 million for the year ended December 31, 2013, an increase of 16%. The increase was principally driven by \$122.0 million related to increased net sales, \$20.0 million of price increases on certain products and \$3.0 million of favorable foreign exchange, partially offset by \$5.8 million of higher incentive compensation expense and \$5.2 million of higher manufacturing expense commensurate with increased net sales. Gross profit as a percent of net sales increased by 2.2%. This increase was principally driven by increased net sales and price increases on certain products.

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.

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Response:

In response to the Staff's comment, in future filings the Company will enhance and expand its disclosures regarding Gross Profit. For example, the additional disclosures for the quarter ended March 31, 2015, shown in italics, relating to Gross Profit would be as follows:

Gross profit

Gross profit for the quarter ended March 31, 2015 was \$239.2 million compared to \$222.5 million for the quarter ended March 31, 2014, an increase of 8%. The increase was principally driven by \$8.0 million of price increases on certain products, \$7.0 million related to increased net sales as described above, \$1.0 million of favorable manufacturing performance and \$1.0 million favorable material costs. Gross profit as a percent of net sales increased by 2.4%. This increase was principally driven by price increases on certain products and increased net sales.

* * * * *

The Company acknowledges 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.

If you have any questions or comments, please contact me at (317) 242-6937.

Very truly yours,

/s/ David S. Graziosi

David S. Graziosi Executive Vice President, Chief Financial Officer, Treasurer and Assistant Secretary

 cc: Theresa Messinese, Division of Corporation Finance Jean Yu, Division of Corporation Finance
Lawrence E. Dewey, Chairman, President and Chief Executive Officer Eric C. Scroggins, Vice President, General Counsel and Secretary