



DIVISION OF
CORPORATION FINANCE

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

May 10, 2011

Eric C. Scroggins
Vice President – General Counsel and Secretary
Allison Transmission Holdings, Inc.
4700 West 10th Street
Indianapolis, IN 46222

**Re: Allison Transmission Holdings, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed April 26, 2011
File No. 333-172932**

Dear Mr. Scroggins:

We have received your response to our prior comment letter dated April 14, 2011 and have the following additional comments.

General

1. We note the statement in the second paragraph on page one that your fully-automatic transmissions are the standard offered in the powertrain configuration of certain types of vehicles. Please revise to clarify whether this statement only relates to vehicles offered in the North American market or advise.
2. We note the disclosure on page two which states that you believe there is major growth opportunity outside of the United States as you estimate less than 5% of the medium and heavy-duty commercial vehicles sold outside North America in 2010 were equipped with fully-automatic transmissions. Please revise to balance the disclosure by clarifying that you cannot provide any assurance that your business strategies will be successful and that fully-automatic transmissions will be increasingly adopted outside North America.

Our Industry & Served Markets, page 3

3. We note the disclosure on page three which claims that the “start and stop” activity of manual transmissions results in “reduced performance, lower fuel efficiency, lower average speed for a given amount of fuel consumed and inferior ride quality.” Please substantiate your claim and revise to state as a belief of management.
4. We note the disclosure that automatic transmissions deliver increased fuel efficiency. However, we note the disclosure in the fourth sentence of the first paragraph on page three that manual transmission provides the highest degree of fuel economy during steady-state cruising in long-distance trucking. Please revise here and throughout the

prospectus to limit your claim regarding fuel economy for fully-automated transmissions given the noted disclosure.

5. Refer to the last sentence of the first paragraph. While we note your statement that historically end users have exhibited a willingness to pay for fully-automatic transmissions, we note that less than 5% of the medium and heavy commercial vehicles sold outside North America in 2010 were equipped with fully-automatic transmissions. Please remove the statement or revise.

Increasing penetration of fully-automatic transmissions, page 4

6. We note your response to prior comment 17 and reissue in part. Please revise to substantiate your belief that emerging markets will also adopt fully-automatic transmissions. Although we note that less than 5% of the medium and heavy commercial vehicles sold outside North America in 2010 were equipped with fully-automatic transmissions, it is not readily clear that emerging markets will increasingly adopt fully-automatic transmissions in the near future. Also revise throughout the prospectus to remove statements regarding the “trend toward automaticity.”

Increasing Emphasis on Fuel Efficiency and Lower Emissions, page 5

7. We note your response to our prior comment 18 and reissue. Please revise to disclose that demand for your hybrid-propulsion systems decreased in 2010, as you do not appear to have done so, or advise.

Our sales are concentrated among our top five OEM customers, page 19

8. We note your response to prior comment 34 and reissue in part. Please revise to disclose the amount of the late payment so that investors can better assess this risk.

Increases in cost, disruption of supply, page 21

9. We note your response to prior comment 36 and that some of the raw materials and components are only from “fully validated suppliers.” Please revise to explain the difference between your regular suppliers and fully validated suppliers.

Trends impacting our business, page 44

10. While we note your response to prior comment 45, it appears that the data supporting the “pent up demand” for new commercial vehicles is related to the North American market. Please revise or advise.

Net sales, page 51

11. We note your response to prior comment 47. Please revise the risk factor entitled, “Sales of our hybrid-propulsion systems may be negatively impacted...,” to disclose the decrease in revenue generated from hybrid-propulsion systems for the period ending on December 31, 2010.

Liquidity and Capital Resources, page 54

Cash Used for Financing Activities, page 56

12. Refer to our previous comments 49 and 60. Please further revise your disclosure related to derivative-related collateral posting requirements to include a sensitivity analysis explaining the impact a 1% change in the LIBOR interest rate curve would have on the required collateral.

Contractual Obligations, Contingent Liabilities and Commitments, page 60

13. Refer to your response to our prior comment 58. Please add a footnote to this table to provide information comparable to that included in paragraph 4 of your response and to clarify the fact that these amounts are not included in the table.

Business, page 64

14. We note your response to prior comment 50 and your revised disclosure on pages 64-65. Please revise the fourth paragraph on page 64 to disclose that you cannot provide any guarantee that such growth rates will materialize in the future and that emerging markets will increasingly adopt fully-automatic transmissions.

Summary Compensation Table, page 98

15. Please revise this table to include all compensation amounts for 2010 or advise.

Director Compensation For 2009, page 102

16. Please revise the section title to reflect the director compensation for 2010.

Services Agreement, page 108

17. Please disclose the reasons for the termination of the management agreement which would necessitate the payment of the \$16 million termination fee. Also disclose your services arrangement with the Sponsors and the termination fee under the “Our Sponsors” section on page 9.

18. Please file the management agreement with Carlye and Onex or explain to us why this is not necessary.

Note 5 – Goodwill and Intangible Assets, page F-16

19. We note your response to our previous comment 56. In light of the significance of goodwill and intangible assets to your balance sheet, please revise your disclosure here and in MD&A to indicate the following as included in your response:
- Percentage or amount by which fair value exceeded carrying value;
 - Description of key assumptions that drive fair value; and
 - Discussion of the uncertainty associated with the key assumptions and any potential events and/or circumstances that could have a negative effect.

Note 10 – Other Income, net, page F-26

20. Refer to your response to our previous comment 65. It appears that the income statement treatment of allowable expenses and capital expenditures is inconsistent. Specifically, we note from your response that amounts earned for allowable expenses incurred are credited to other income, net while amounts earned for capital expenditures are credited against the gross basis of the capital asset. It appears that, therefore, amounts for allowable expenses result in non-operating income, while amounts used for capital expenditures eventually impact operating income through reduced depreciation expense. In order to remedy this inconsistency, please expand your accompanying disclosures. For example, we see from your narrative that you have recorded \$13.8 million of reimbursable expenses to date. Please also quantify any portion of the \$62.5 million in available matching funds that has been credited against the gross basis of capital assets to date, as well as any amounts of depreciation offset by fiscal period and in the aggregate as applicable. If none, please so state.

Item 16. Exhibits and Financial Statement Schedules

21. We note your response to our prior comment 69 and reissue in part. Please file Attachment A to the Copyright Security Agreement, as you do not appear to have done so, or advise.

Eric C. Scroggins
Allison Transmission Holdings, Inc.
May 10, 2011
Page 5

You may contact Amy Geddes at (202) 551-3304 or Margery Reich at (202) 551-3347 if you have questions regarding comments on the financial statements and related matters. You may contact Chanda DeLong at (202) 551-3490 or me at (202) 551-3642 with any other questions.

Sincerely,

Lauren Nguyen
Attorney-Advisor

cc: Rachel W. Sheridan, Esq. via facsimile (202) 637-2201