



DIVISION OF  
CORPORATION FINANCE

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

February 28, 2012

Via E-mail

Lawrence E. Dewey  
Chief Executive Officer  
Allison Transmission Holdings, Inc.  
4700 West 10th Street  
Indianapolis, IN 46222

**Re: Allison Transmission Holdings, Inc.  
Amendment No. 6 to Registration Statement on Form S-1  
Filed February 17, 2012  
File No. 333-172932**

Dear Mr. Dewey:

We have received your response to our prior verbal comment issued on November 21, 2011 and have the following additional comments on the registration statement.

Prospectus Cover Page

1. Refer to the first sentence of the first paragraph. Please reconcile the disclosure that the selling shareholders "are affiliates of The Carlyle Group, or Carlyle, and affiliates of Onex Corporation, or Onex" with the disclosure on page 11 which states that the "selling stockholders in this offering are Carlyle and Onex." Please revise.

Prospectus Summary, page 1

2. Please refer to the use of compound annual growth rate in the first paragraph on page 2. Please remove this disclosure or balance the disclosure by providing the growth rate for each of the years here. We further note that this disclosure is duplicative with the disclosure on page 4. We also note similar disclosure in the "Increasing penetration of fully-automatic transmissions" paragraph on page 4. Please revise throughout accordingly.
3. Please remove the word "proven" from the last sentence of the second paragraph on page 1.

Growth in commercial vehicle demand in emerging markets, page 3

4. Please balance this subsection and the next four subsections by noting that you cannot provide assurances that the projected growths in emerging markets or fully-automatic transmissions will materialize or will occur at the rates referenced.

Well-Positioned to Capitalize on Multiple Growth Opportunities, page 6

5. Please explain what a “metro market” is.

Risk Factors, page 17

A majority of our sales to the military end market are to U.S. government entities, page 24

6. Please revise to explain the reasons for the decrease in net sales from government entities for 2011.

Exhibits List, page II-3

7. Counsel is required to provide a finalized legality opinion regarding the securities in the offering. Please revise to delete “form of” from the description and file a finalized opinion.

Exhibit 5.1

8. Please have counsel revise and include the number of shares of securities in the offering.

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 me at (202) 551-3642 with any other questions.

Sincerely,

/s/ Loan Lauren P. Nguyen

Loan Lauren P. Nguyen  
Special Counsel

cc: Via E-mail  
Rachel W. Sheridan, Esq.  
Jason M. Licht, Esq.  
Latham & Watkins LLP