LATHAM&WATKINS

August 10, 2011

VIA EDGAR AND OVERNIGHT DELIVERY

Loan Lauren P. Nguyen Special Counsel Division of Corporation Finance United States Securities and Exchange Commission 100 F Street, N.E. Washington, D.C. 20549

Re: Allison Transmission Holdings, Inc. Amendment No. 3 to Registration Statement on Form S-1 Filed June 17, 2011 File No. 333-172932

Dear Ms. Nguyen:

555 Eleventh Street, N.W., Suite 1000 Washington, D.C. 20004-1304 Tel: +1.202.637.2200 Fax: +1.202.637.2201 www.lw.com

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On behalf of our client, Allison Transmission Holdings, Inc., a Delaware corporation (the "Company"), and pursuant to the applicable provisions of the Securities Act of 1933, as amended, and the rules promulgated thereunder, please find enclosed for filing with the Securities and Exchange Commission (the "Commission") a complete copy of Amendment No. 4 ("Amendment No. 4") to the above-captioned Registration Statement on Form S-1 of the Company filed with the Commission on March 18, 2011, as amended by Amendment No. 1 filed with the Commission on April 26, 2011 ("Amendment No. 1"), Amendment No. 2 filed with the Commission on May 13, 2011 ("Amendment No. 2") and Amendment No. 3 filed with the Commission on June 17, 2011 ("Amendment No. 3") (collectively, the "Registration Statement").

This amendment reflects certain revisions of the Registration Statement in response to the comment letter to Mr. Eric C. Scroggins, the Company's Vice President—General Counsel and Secretary, dated July 1, 2011, from the staff of the Commission (the "Staff"). For your convenience we are also providing copies of Amendment No. 4, marked to show changes against Amendment No. 3, in the traditional non-EDGAR format to each of Chanda DeLong and you.

The numbered paragraphs in italics below set forth the Staff's comments together with the Company's response. Unless otherwise indicated, capitalized terms used herein have the meanings assigned to them in the Registration Statement.

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Prospectus Cover Page

1. Please revise to remove the terms joint book-running manager, lead manager, senior co-manager, and co-manager from the cover page.

Response: The Company has revised the front and back covers of the prospectus of Amendment No. 4 in response to the Staff's comment.

Our substantial indebtedness could adversely affect our financial health, page 29

2. Please revise to move this risk factor to the forefront of the risk factors section.

Response: The Company has revised the disclosure on pages 17 and 18 of Amendment No. 4 in response to the Staff's comment to move the referenced risk factor to the forefront of the risk factors section.

Underwriting, page 129

3. We note your statement on page 130 that certain underwriters and their affiliates are holders of the Senior Cash Pay Notes, the Senior Toggle Notes and the New Notes. Please revise to name the underwriters and the principal amount of notes held by these underwriters.

Response: Item 508(a) of Regulation S-K requires the registrant to identify each underwriter having a material relationship with the registrant and state the nature of the relationship. As of August 5, 2011, the underwriters, collectively, together with their respective affiliates, did not hold more than 10% of the outstanding aggregate principal amount of the Company's notes, and no underwriter individually, together with its affiliates, held more than 5% of the outstanding aggregate principal amount of the Company's notes. The aggregate principal amount of notes held by the underwriters and their respective affiliates may change significantly from time to time.

We have revised the disclosure on page 133 of Amendment No. 4 in response to the Staff's comment to state that as of August 5, 2011, the underwriters, collectively, together with their respective affiliates, did not hold more than 10% of the outstanding aggregate principal amount of the Company's notes, and no underwriter individually, together with its affiliates, held more than 5% of the outstanding aggregate principal amount of the Company's notes. The aggregate principal amount of notes held by the underwriters and their respective affiliates may change significantly from time to time.

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We hope that the foregoing has been responsive to the Staff's comments and look forward to resolving any outstanding issues as quickly as possible. Please do not hesitate to contact me at (202) 637-2139 or my colleague, Jason M. Licht, at (202) 637-2258 with any questions or further comments you may have regarding this filing or if you wish to discuss the above.

Sincerely,

/s/ Rachel W. Sheridan

Rachel W. Sheridan of LATHAM & WATKINS LLP

Enclosures

cc: (via fax) Eric C. Scroggins Chanda DeLong