



DIVISION OF
CORPORATION FINANCE

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

September 28, 2012

Via E-mail

Mr. David R. Demers
Chief Executive Officer
Westport Innovations Inc.
Suite 101, 1750 West 75th Avenue
Vancouver, British Columbia, Canada V6P 6G2

**Re: Westport Innovations Inc.
Amendment No. 1 to Form 40-F for
the Nine Months Ended December 31, 2011
Filed September 25, 2012
Response Letter Dated September 25, 2012
File No. 1-34152**

Dear Mr. Demers:

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

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Amendment No. 1 to Form 40-F for the Nine Months Ended December 31, 2011

Exhibit 99.2

Note 21. Investment in Joint Ventures, (a) Cummins Westport Inc., page 37

1. Further to your response to prior comment 2, please explain how you evaluated the impact of adopting ASU 2009-17. In your response, explain how you determined that the company is the primary beneficiary of CWI. We note that as a result of the adoption of ASU 2009-17, you are now required to perform the assessment of whether the company is the primary beneficiary of CWI on an ongoing basis. Please discuss how you considered ASC 810-10-25-38-A to 38G.

2. Further, with respect to the Second Amended and Restated Joint Venture Agreement dated February 20, 2012, please discuss why you believe that the agreement does not include changes to characteristics or adequacy of the legal entity's equity investment at risk. Compare the new agreement to the old agreement. Refer to ASC 810-10-35-4(a).
3. With respect to your response to prior comment 3, please tell us how you considered the requirements of ASC 810-10-45-25.

Note 23 – Segment Information, page 40

4. Further to your response to prior comment 4 and the changes made to Exhibit 99.2 in Amendment No. 1 to your Form 40-F, please revise future filings to also revise the line item title for segment net operating profit or loss in the segment table to more accurately reflect its components.
5. With reference to your response to prior comment 6, we note that you believe it is not practical to disclose material revenues from external customers attributed to individual foreign countries. As required by ASC 280-10-50-41, in future filings please disclose, to the extent applicable, that providing the geographic information is impracticable.

Exhibits 99.4, 99.5, 99.6 and 99.7

6. We note that your certifications continue to be dated February 29, 2012 in Amendment No. 1 to your Form 40-F which was filed September 25, 2012. Please amend your Form 40-F, as required by Rule 12B-15, to include revised currently dated certifications by each principal executive officer and the principal financial officer of the registrant.

You may contact Gary Newberry, Staff Accountant, at (202) 551-3761 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3671.

Sincerely,

/s/ Kate Tillan for

Martin James
Senior Assistant Chief Accountant