

Mail Stop 6010

January 18, 2007

VIA U.S. MAIL AND FACSIMILE (309-675-4010)

Mr. David B. Burritt
Vice President and Chief Financial Officer
Caterpillar Inc.
100 NE Adams Street
Peoria, Illinois 61629

**Re: Caterpillar Inc.
Amendment No. 1 to Form 10-K for the Fiscal Year Ended
December 31, 2005
Filed May 31, 2006
Form 10-Q for the Quarterly Period Ended September 30, 2006
File No. 001-00768**

Dear Mr. Burritt:

We have reviewed your response letter dated December 15, 2006 and your filings and have the following comments. Where indicated, we think you should revise future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K/A for the Fiscal Year Ended December 31, 2005

Consolidated Financial Statements and Notes, page A-5

Note 25. Segment Information, page A-31

1. Please refer to prior comment 5. To help us understand how you considered paragraphs 13 – 15 in determining the appropriate operating segments under SFAS 131, please explain the organizational components of the various reports in which you present your business activities to your chief operating decision maker. In this regard, please explain in more detail how your management group is aligned via the chairman, five group presidents and thirty vice-presidents and relate your response to your reportable operating segments.
2. Further, your response states that you “reconcile data for the principal lines of business discussed in [y]our MD&A to [y]our segment data.” Please tell us where you present this reconciliation in the Form 10-K. If the information is not presented, then please explain why.
3. Please also discuss your consideration of Questions 19 – 21 of Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures, dated June 13, 2003, available on our website at <http://www.sec.gov/divisions/corpfin/faqs/nongaapfaq.htm>.

Form 10-Q for the Quarterly Period Ended September 20, 2006

Note 14. Acquisitions, page 25

4. Please refer to prior comment 9. Please tell us in more detail about the significant terms of your agreements whereby you purchase used cores from dealers/customers and re-sell remanufactured cores to them. Discuss how you determine the purchase price of the used cores and the selling price of the remanufactured cores. Discuss the nature of any obligations of the buyer or seller to make these purchases or sales. Further discuss how you account for and value these transactions and why. In future filings, if your remanufacturing activities are material to your financial statements, then please disclose your accounting policies for these activities, such as those related to revenue recognition.

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As appropriate, please revise future filings and respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 or me at (202) 551-3676 if you have any questions regarding these comments.

Sincerely,

Brian Cascio
Accounting Branch Chief