



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-3030

Mail Stop 3030

March 12, 2010

Mr. Joel Littman
Chief Financial Officer
CPI International, Inc.
811 Hansen Way
Palo Alto, CA 94303

Re: CPI International, Inc.
Form 10-K for Fiscal Year Ended October 2, 2009
Filed December 10, 2009
File No. 000-51928

Dear Mr. Littman:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comments are 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 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 filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Exhibits

1. We note your response to our prior comment 2. However, it is unclear how Item 601(b)(10) allows you to omit certain schedules or exhibits which you believe to be immaterial to investors. Please file as an exhibit the entire agreement including all exhibits and schedules included with the original agreement. To the extent you seek to keep certain information confidential you may wish to file a confidential treatment request pursuant to rule 24b-2 of the Exchange Act. For guidance on submitting such a request, please refer to Staff Legal Bulletin No. 1, available on our website at www.sec.gov. Select "Corporation Finance," then select "Compliance and Disclosure Interpretations" and then select "Confidential Treatment Requests."

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As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Please contact Louis Rambo at (202) 551-3289 or me at (202) 551-3637 with any questions.

Sincerely,

Jay Mumford
Senior Attorney