



DIVISION OF
CORPORATION FINANCE

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

November 30, 2010

Mr. Glenn E. Davis
Principal Financial Officer
GSI Group Inc.
125 Middlesex Turnpike
Bedford, Massachusetts 01730

**Re: GSI Group Inc.
Form 10-K for the year ended December 31, 2009
Filed October 1, 2010
File No. 000-25705**

Dear Mr. Davis:

We have reviewed your filing and 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 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form NT 10-Q Filed November 15, 2010

1. We note from the disclosure in your Form NT 10-Q filed November 15, 2010 that you will file your quarterly reports on Form 10-Q for the fiscal quarters ended April 2, July 2 and October 1, 2010, on or before December 31, 2010. Please confirm the date when you expect to file these reports. After reviewing those reports, we may have further comments.

Form 10-K for the Fiscal Year Ended December 31, 2009

Financial Statements, page 72

Note 3. Summary of Significant Accounting Policies, page 85

2. Please tell us about the nature of the error correction to your 2008 statements of cash flows. Tell us why you did not mark the financial statements as restated and include the disclosures in ASC 250-10-50-7.

Note 12. Income Taxes, page 124

3. We note from page 127 that in 2009, you provided deferred tax for two dividend transactions related to previously undistributed earnings. Please explain why you continue to assert that the remaining undistributed earnings are indefinitely reinvested.

Item 9A. Controls and Procedures, page 151

4. We note that you have included part of the definition of disclosure controls and procedures in your discussion of the evaluation of your controls and procedures as of December 31, 2009. While you are not required to include the definition of disclosure controls and procedures in your discussion, when you do so in future filings, that definition must be consistent with and not modify the language that appears in the definition of "disclosure controls and procedures" set forth in Rule 13a-15(e) of the Exchange Act. Alternatively, in future filings you may remove that definition.
5. In future filings please include the disclosures required by Item 308T(a)(4) of Regulation S-K relating to a statement that the annual report does not include an attestation report of the company's registered public accounting firm regarding internal control over financial reporting.

Exhibits

4. We note that you have not filed Schedule I to exhibit 10.1 filed with your Form 8-K on July 23, 2010. Please refile this agreement with all attachments.

Exhibit 23.1

5. Given your disclosure in the last paragraph on page 15 of your Form 10-K that you are currently ineligible to use Form S-3, please tell us why you have filed a consent of your independent auditors which references the incorporation by reference of your financial statements into your registration statements on Form S-3. Also, tell us whether you intend to deregister the sale of any securities remaining pursuant to these registration statements, or amend them to a form you are currently eligible to use.

Other

6. In connection with our review of your information required by Part III of Form 10-K we note that you do not appear to have provided the disclosure required by Regulation S-K Item 407(h). Please provide this information in your applicable future filings.

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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Mr. Glenn E. Davis
GSI Group Inc.
November 30, 2010
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You may contact Julie Sherman, Staff Accountant, at (202) 551-3640 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have any questions regarding comments on the financial statements and related matters. Please contact Louis Rambo, Staff Attorney, at (202) 551-3289 or Tim Buchmiller, Reviewing Attorney, at (202) 551-3635 if you have questions on any other comments. In this regard, do not hesitate to contact me at (202) 551-3671.

Sincerely,

Martin James
Senior Assistant Chief Accountant